EDUCATION FOR PROSPERITY: **DELIVERING RESULTS**

A National Strategy for Human Resource Development
2016 – 2025

> In our view, successful reform is not an event. It is a sustainable process that will build on its own successes – a virtuous cycle of change.

His Majesty King Abdullah II

His Majesty King Abdullah II's Letter to Dr. Abdullah Ensour

In the Name of God, Most Compassionate, Most Merciful
Your Excellency Dr. Abdullah Ensour,
Peace, God's mercy and blessings be upon you,
It is my pleasure to convey to you and your Cabinet my greetings and best wishes for further success in realising national aspirations for greater progress, development and modernisation.

Your Excellency, our belief that the Jordanian citizen is the centre of our development process remains constant. Hence, our keenness is to invest in our citizens' education and training to create a generation of forward-looking young people, who are equipped with the skills necessary to analyse, innovate and excel. Ultimately, we seek a generation of youth aware of their rights and responsibilities as well as eager to contribute positively towards their country's economic, social and political development.

It is worth noting that developing an integrated educational system requires full and swift implementation of existing programmes and plans, which are in line with best international standards and practices. It also requires the development of human resources, according to a framework that ensures synergy between programmes and goals. This comprehensive approach gives priority to vocational and technical training as well as improving university education, with the aim of enhancing the outputs, quality and efficiency of education.

It is, therefore, urgent that Jordan develops an integrated, comprehensive, strategic and well-defined system for human resource development. It should provide a clear framework for all sectors concerned with education, in line with the 10-year economic blueprint (2015-2025) and The National Employment Strategy's executive plan.

This endeavour, which should be informed by previous efforts and studies, seeks a human resource development model that equips future generations with tools of knowledge and education as well as excellence and innovation. We want our youth to be qualified and capable to compete effectively at national, regional and international levels.

Cooperation across the board is key, particularly from the private sector and civil society organisations, in order to develop Jordan's most vital sector, education. Achieving this goal brings opportunities for Jordanian youth and unleashes their potential.

Therefore, the government should establish a National Committee for Human Resource Development, tasked with the following: Formulating a national strategy, from which emerges a 10-year executive plan that encompasses primary and higher education as well as vocational and technical training and ushers in a qualitative leap for national human resource development and helps identify consensus-based reform policies that support modernisation and progress.

Leading preparations for a national conference, which adopts the National Strategy for Human Resource Development that spans all phases of education, from early childhood until entering the job market. This strategy incorporates workable programmes and plans, key performance indicators, well-defined reform priorities, potential funding options and necessary steps for enhancing the job-market. Once approved by the Cabinet, this strategy will become the long-term roadmap, guiding successive governments.

Following up on the implementation and progress of the National Strategy for Human Resource Development to achieve high-quality and tangible strides towards its goals.

The efforts of this National Committee will have our constant attention and support. We expect the government and all its institutions to do their utmost to execute programmes emerging from this strategy, and enable this committee to carry out its tasks, achieve measurable results that positively reflect development and serve the country and its people well.

May God grant us all success in fulfilling the aspirations of our faithful people, building our precious Jordan and help you to achieve success in this noble mission.

Peace, God's mercy and blessings be upon you,
Abdullah II ibn Al Hussein
Amman, 3 Jumada II 1436 Hijri 24 March 2015

EDUCATION FOR PROSPERITY

His Excellency the Prime Minister's Letter to Dr. Wajih Owais

Prime Minister

No. 83/11/1/15322

Date: 6 April 2015

H.E. Dr. Wajih Owais

In implementation of the Higher Royal Order contained in the royal message addressed to me on 24 March 2015, a copy of which is attached therein, I decided to form a National Committee for Human Resource Development, headed by Your Excellency and including the following esteemed members:

1. H.E. Mr. Said Darwazeh
2. H.E. Ms. Suhair Al Ali
3. H.E. Mr. Samir Murad
4. H.E. Ms. Haifa Najjar
5. Dr. Abdullah Ababneh
6. Dr. Abdel Nasser Abu Albasal
7. Dr. Ahed Al-Wahadni
8. Eng. Ali Nasrallah
9. Mr. Ayman Mazahreh
10. Dr. Amal Nusair
11. Dr. Taghreed Abu Taleb
12. Ms. Haifa Dia Al-Attia

Accept my utmost respect.

Prime Minister Dr. Abdullah Ensour

Copy / to the Chief of the Royal Hashemite Court

GLOSSARY OF ACRONYMS

Acronym	Definition
AHELO	Assessment of Higher Education Learning Outcomes
AMF	Ascending Markets Financial Guarantee Corporation
BA	Bachelor of Arts
BAU	Al-Balqa' Applied University
BMI	Body Mass Index
CAQA	Centre for Accreditation and Quality Assurance
CBO	Community-based organisation
CEDA	Community Education Development Association
CIFF	Children's Investment Fund Foundation
COM	Chicago Office of the Mayor
CPC	Child-Parent Centre
CPD	Continuing Professional Development
CPPD	Continuing Professional and Personal Development
CPS	Chicago Public Schools
CRPD	Convention on the Rights of Persons with Disabilities
CSB	Civil Service Bureau
CSO	Civil society organisation
DAP	Developmentally Appropriate Practice
DCDBs	Debt Conversion Development Bonds
DIBs	Development impact bonds
DoS	Department of Statistics
ECED	Early Childhood Education and Development
EDI	Early Development Instrument
EGMA	Early Grade Maths Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System

EQAU	Education Quality and Accountability Unit
ERfKE	Education Reform for the Knowledge Economy
GED	General Equivalency Diploma
GIS	Geographical Information System
GJU	German-Jordanian University
HCD	Higher Council for Affairs of Persons with Disabilities
HE	Higher Education
HEAC	Higher Education Accreditation Council
HEC	Higher Education Council
HERfKE	Higher Education Reform for the Knowledge Economy
HRD	Human Resource Development
ICT	Information and Communications Technology
IFE	Informal Education
ITEP	Initial Teacher Education Programme
IYCF	Infant and Young Child Feeding
JEI	Jordan Education Initiative
JRF	Jordan River Foundation
JUST	Jordan University of Science and Technology
KAFD	King Abdullah II Fund for Development
KGs	Kindergartens
KG1	Kindergarten 1
KG2	Kindergarten 2
KPIs	Key Performance Indicators
LMIS	Labour Market Information System
LMS	Learning Management System
LSA	Learning Support Assistant
M&E	Monitoring and Evaluation
MD	Managing Directorate
MENA	Middle East and North Africa
MoE	Ministry of Education
MoF	Ministry of Finance
MoH	Ministry of Health
MoHESR	Ministry of Higher Education and Scientific Research

MoICT	Ministry of Information and Communications Technology
MoL	Ministry of Labour
MOOC	Massive Open Online Course
MoPIC	Ministry of Planning and International Cooperation
MoPSD	Ministry of Public Sector Development
MoSD	Ministry of Social Development
MPWH	Ministry of Public Works and Housing
MSCoE	Model Skill Centres of Excellence
NAF	National Aid Fund
NAfKE	National Assessment for the Knowledge Economy
NASBO	National Association of State Budget Officers
NFE	Non-Formal Education
NCFA	National Council for Family Affairs
NCHRD	National Centre for Human Resource Development
NEC	National Employment Council
NET	National Employment and Training Company
NGO	Non-governmental organisation
NQF	National Qualifications Framework
NTTI	National Training of Trainers Institute
OECD	Organisation for Economic Co-operation and Development
OOS	Out-of-school
OERs	Open Educational Resources
PER	Public expenditure review
PFS	Pay-For-Success
PISA	Programme for International Student Assessment
PLM	Participatory Learning Methodology
PoA	Plan of Action
PPP	Public-Private Partnerships
PTA	Parent Teacher Association
QA	Quality Assurance
QRF	Queen Rania Foundation
QRTA	Queen Rania Teacher Academy
RAMP	Early Grade Reading and Mathematics Project

RHAS	Royal Health Awareness Society
RHC	Royal Hashemite Court
SABER	Systems Approach for Better Education Results
SBBs	Social Benefit Bonds
SCALT	Student-Centred Active Learning and Teaching
SDC	Skills Development Corporation
SDIP	School Development and Improvement Programme
SDDP	School and Directorate Development Programme
SES	Socioeconomic status
SIBs	Social Impact Bonds
SMART	Specific, Measurable, Attainable, Relevant, Time-Bound
SPOC	Small Private Online Course
SSC	Social Security Corporation
SSCs	Sector Skills Councils
TIMSS	Trends in International Mathematics and Science Study
TOT	Training of Trainers
TVET	Technical and Vocational Education and Training
UJ	University of Jordan
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
UNRWA	United Nations Relief and Works Agency
USAID	United States Agency for International Development
VTC	Vocational Training Centre
WYC	Working with Young Children

EDUCATION FOR PROSPERITY

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A VISION FOR TALENT DRIVEN PROSPERITY

OVERVIEW

EDUCATION FOR PROSPERITY: DELIVERING RESULTS

A NATIONAL STRATEGY FOR HUMAN RESOURCE DEVELOPMENT 2016-2025 - OVERVIEW

This document presents an overview of *Education for Prosperity: Delivering Results – A National Strategy for Human Resource Development 2016-2025.*

The Strategy has been produced in response to a letter from His Majesty King Abdullah II to His Excellency the Prime Minister, Dr. Abdullah Ensour, dated 24th March 2015, establishing a National Committee for Human Resource Development. His Excellency Dr. Wajih Owais chaired the Committee and the creation of this Strategy in response to His Majesty's request.

1. A vision for talent-driven prosperity

For a nation like Jordan, lacking mineral resources or other natural advantages, prosperity, stability, and wellbeing depend almost entirely on the talents and enterprise of its people. The competitiveness and productivity of our industries, the quality and effectiveness of our public services, and the welfare of our families and communities all depend on the availability of a well-educated and highly skilled populace. For these reasons, investment in education and skills has been a national priority since the establishment of the Kingdom. As a result, over many years the progress of education in Jordan exceeded other countries in the region, in both quality and quantity.

Over recent years, however, that progress has stalled, and our education system is no longer producing the results the Kingdom needs. Whether judged by enrolment and progression rates, the results achieved in school examinations, or the employment and employability of those graduating or leaving education, the system is failing to meet expectations. The National Committee for Human Resource Development (HRD) was commissioned by His Majesty King Abdullah II to investigate the evidence and the root causes for this, and to develop 'an integrated, comprehensive, strategic and well-defined system for human resource development.'

The National Committee, drawing on current national strategy initiatives including *Jordan 2025* and the *National Employment Strategy*, has identified wide-ranging reform programmes and action plans designed to establish an HRD system that will realise the vision offered here:

Jordan's HRD system will enable the Kingdom to meet its goals for sustainable development, which includes the development of the nation in economic, cultural, social, and environmental terms. It will ensure current and future generations develop the skills and capabilities they need to live happy and fulfilled lives, and collectively realise the ambition of a prosperous and resilient Jordan.

Specifically, the HRD system will deliver the following:

- For the Kingdom: a workforce with the skills, qualifications, capabilities, and behaviours necessary to achieve Jordan's economic and societal ambitions.
- For children, students, and learners: the opportunity to realise their full potential as happy, healthy, empowered, and active citizens who have a love of life-long learning and who follow their own aspirations – academically, economically, and socially.
- For education providers and teachers: the capacity and tools to support learners across the Kingdom to realise their ambitions – with respect, fulfilment, and rewards to match.
- For the community as a whole: a system for education and HRD of which all can be proud and which contributes to productive, collaborative, and resilient communities.

While drawing from best practice from around the world, this approach to HRD reform is customised to Jordan's specific needs and aspirations. HRD will be focused on strategic national goals and clear priorities. At the same time, it will be resilient to external and internal challenges and responsive to the changing global context, adapting approaches to teaching and learning to enable individual and national success in a rapidly changing world.

These reforms and this vision strive to achieve the following, which encompass the objectives for the HRD strategy:

- By 2025, ensure that all children have access to quality early childhood learning and development experiences that promote primary school readiness, ensure healthy lives, and promote their future wellbeing.
- By 2025, ensure that all children complete equitable and quality primary and secondary education, leading to relevant and effective learning outcomes.
- By 2025, substantially increase the number of youth and adults who have relevant technical and vocational skills for employment, decent jobs, and entrepreneurship.
- By 2025, ensure fair access to affordable, relevant, and quality university education opportunities.

The following sections of this Overview set out the National Committee's proposals for achieving this vision and these objectives over the coming ten years and beyond, and in particular their recommendations for ensuring that ambitious recommendations and plans are translated into changes that deliver real benefits for the Kingdom and its people.

2. The challenges to be overcome

It would be entirely wrong to suggest that the HRD system in Jordan – comprised of early childhood education and development, school level education from grades 1-12, technical and vocational education and training, and higher education – has completely insurmountable challenges or that those responsible are not striving to make it better. The system is well-developed in many regards, and efforts are continuing to introduce improvements, for example:

- The Kingdom has high enrolment rates for primary, secondary, and higher education compared to countries of similar income levels. Jordan had already achieved gender parity in primary enrolment in 1979, in contrast to the average upper middle income country which still enrols more boys than girls[1], and has one of the highest female literacy rates in the region, at 95.2%.[2]
- Teacher training is being improved through a range of initiatives led by the Queen Rania Teachers Academy (QRTA), the Jordan Education Initiative (JEI), the Early Grade Reading and Math Project (RAMP) and others; QRTA's efforts in this area are being expanded through a new Initial Teacher Education Programme to train future teachers.
- Early childhood healthcare is relatively strong – with high vaccination rates, free health insurance for children under six, and well-developed antenatal care.
- International donor agencies have shown they are willing and able to invest in education and training initiatives in Jordan if the initiative has clear objectives and a well-designed plan. Examples are two Education Reform for the Knowledge Economy (ERfKE) investment programmes (although programmes aimed at Syrian refugees have experienced only mixed success in meeting funding requirements).
- Significant efforts to reform the core processes of how ministries function are ongoing at the Ministry of Education (MoE) and other Ministries; for example the MoE is devolving responsibilities to its field directorates and schools, presenting greater opportunities for teachers, school leaders, and communities to improve the system from within.
- The MoE's recently re-vamped Education Management Information System (EMIS)[3] will enable data-driven decision making for primary and secondary education.
- Piloting new approaches: The Ministry of Labour (MoL) has supported the establishment of Model Skill Centres of Excellence (MSCoE) for vocational training in the form of public-private partnerships which can provide a foundation for future efforts.

However, despite these initiatives and many others, student learning outcomes are lagging and the skills of graduates are not meeting the needs of the economy. Every year, over half of school students fail their Tawjihi exams and leave school without clear alternative pathways or support. There is an oversupply of university graduates and chronic undersupply of skilled craftsmen and technicians. As a result, youth unemployment is running at 31.8%[4] and total workforce participation is only 41%, one of the lowest rates in the world. Behind these facts and figures are the personal stories and struggles of young people who cannot find jobs or build lives for themselves, parents who worry about their children's futures, employers who struggle to find workers with the skills they need to grow their businesses, and leaders concerned with the fate of the nation.

There are a number of recurring themes underlying these worrying outcomes at all levels:

- Governance: Governance tends to be centralised across all stages of education and training, and is often fragmented across more than one entity without clear coordination and communication channels or a clear over-arching strategy.
- Quality assurance: Quality assurance measures are not routinely enforced to ensure continuous monitoring, evaluation, and enhancement of the system.
- Educators: At the K-12 level, teacher quality has declined due to a lack of targeted recruitment and inadequate pre-service and in-service training; outdated teaching methods persist at all education levels.

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[1] UNESCO, 2015

[2] Ibid.

[3] An Education Management Information System is designed to collect and report data, provide standard education indicators and data visualizations to facilitate planning and data-driven decision making for government agencies and school leaders.

[4] ILO, 2014.

- Private sector provision: There has been insufficient deliberate research and planning to promote the development of high quality private provision to help fill gaps in public sector offerings or consider financial and tax incentives or voucher programmes to stimulate private provision and competition.
- Mindset change: Jordanian families greatly value education but do not always see themselves as having an active role in their children's learning journey, and hold certain high-value educational pathways, e.g. TVET and teaching, in low regard.
- Employer engagement: There has been minimal employer engagement (through sector skills councils or similar organisations, for example) to identify the relevant skills learners should develop despite the well-understood need for the education and training system to meet the demands of the labour market.
- Funding and innovation: Vision for funding is limited to traditional sources (i.e. government and direct donor assistance) which may not be sustainable in the long-run. Opportunities to use structures such as public-private partnerships (PPPs) to create additional capacity (to increase enrolment in kindergartens, for example) have not been fully seized.

While the wider context for Jordan offers a number of positive indications for the future of HRD, as shown in Figure 1 below, the benefits of these are compromised by negative factors that limit the growth of the economy and diminish the demand for more and better prepared human talent.

Figure 1: Opportunities Driving Growth and Challenges Restricting Growth[5]

In addition to these factors, Jordan faces particular challenges associated with the huge influx of refugees from Syria. Notwithstanding financial support from the international community, Jordan's generosity and support for more than 1.3 million Syrians places extra demands on the education system and labour market, in addition to other national services and infrastructure.

The challenges are compounded by the continuing rapid expansion in Jordan's population, which is expected to increase by 1.4% per year for the next decade. Consequently, increasing demands for school and further education places are feeding growing numbers into the labour market. The Higher Population Council has pointed out that this expansion provides a unique economic opportunity for Jordan because the working population will exceed the dependent population for the next twenty years. Nevertheless, based on current projections, there will

[5] World Bank, 2014; World Economic Forum, 2016; ILO, 2014; Department of Statistics, 2015

be a need for over 660,000 new jobs over the next decade, if the national target of 8% unemployment (set in *Jordan 2025*) is to be met.

Education is the key to transforming these daunting demographic challenges into opportunities for growth and development. However, significant changes are required across Jordan's education and training systems to realise this goal

3. Governing Principles for Educational Reform

The Committee recommends that the future design and operation of the HRD system, within and across each phase of education and development, should be informed by the following key principles emphasised in successful systems around the world (such as Finland, South Korea or Singapore):

Figure 2. Principles for HRD System Reform

Applied to the HRD system in Jordan, these principles provide a framework for the outcomes that the system should deliver for its stakeholders at every stage of the education and learning journey, and a set of tests against which provision and experiences can be judged.

Governing principle	Application to HRD in Jordan
Access	All learners have fair access to quality education, training, and equal opportunities at every stage of their education journey and reach a minimum level of attainment regardless of their background, gender, disability, or individual needs. Every learner has a fair chance to pursue the pathways best suited for them based on their performance, capability, and passion.
Quality	Our system strives to provide world-class experiences and outcomes for all involved. It aligns with the needs of the local and global economy. It is globally respected and meets, if not exceeds, international standards through accreditation, certification, and quality assurance. We continually monitor ourselves to identify and implement improvements.
Accountability	The regulation of our system is based on a transparent set of rules for decision-making. We empower institutions to take responsibility for their performance through delegating responsibilities and devolved, local decision-making. Setting SMART (Specific, Measurable, Attainable, Relevant, and Time-bound) targets and regular reporting supports us in holding all stakeholders accountable for their respective responsibilities. Learners are accountable for doing their best and using the resources and information available to find suitable pathways.
Innovation	Our system delivers the outcomes needed through innovative and creative approaches and the thoughtful use of technology. We identify innovative ideas around the world and adapt them to meet our unique needs in Jordan. We use international and public-private partnerships and innovative approaches to financing to do more with less. We make the most of our successes through shared practice and learning across the system.
Mindset	Our system instils our national values in our learners, honours our heritage, and promotes unity in our citizenry. The parents and communities of our learners are engaged and involved with their educational institutions, creating a wide support network which promotes the value of education, lifelong learning, and being productive members of society and the economy.

In the following sections, the application of these principles to each stage of the education system will be set out, covering Early Childhood Education and Development (ECED), Basic and Secondary Education (Schools), Technical and Vocational Education and Training (TVET) and Higher Education (HE). As these analyses will show, a number of recurrent issues emerge with regard to these principles from each sub-system, which must be addressed as common threads within the vision of a modern, responsive, high-performing HRD system.

4. Cross-cutting themes for the future HRD system

Access

A young person's education and learning should be seen as a progressive journey that starts in their earliest years and extends into their adult life. That journey will involve numerous transitions and choices of direction, for example through and after school years and between academic or vocational pathways. It is vital that the HRD system is designed to provide a range of different pathways and choices that enable every individual to continue learning and developing their skills according to their abilities, aptitudes, and interests.

This is not true of the current system, which has multiple points of failure at which students who do not make the required grades (for example in Tawjihi) are diverted towards unattractive alternatives or fall out of the formal HRD system altogether. In addition to measures designed to enhance access to each phase of the learning journey, the Committee has proposed initiatives that will improve individuals' progression through the system, such as improved careers advice and guidance starting in schools, an integrated National Qualifications Framework, and closer links between further education and working life.

Quality

International research agrees that the single most important determinant of educational success, at every stage, is the expertise and commitment of teaching staff. While there are many dedicated and excellent teachers working in nurseries, kindergartens, schools, colleges, and universities, the Committee has identified shortcomings in the overall quality of the teaching workforce as a recurrent issue. They have accordingly proposed far-reaching reforms in the selection, initial preparation and on-going training of staff who teach and train. The HE system, in particular, has an important role to play in improving professional formation for the whole HRD sector.

The quality and relevance of what is taught and how it is assessed also need to be addressed. Reforms to the curriculum will be required throughout the system – from ECED where it is currently lacking, to schools where it is outmoded, and TVET and HE where it is misaligned with the labour market. Alongside this, there must be reform of assessment methods – in particular of the Tawjihi exam as the key passport to higher levels of education.

Accountability

The HRD system in Jordan is characterised by a very high degree of centralisation in decision-making, control and regulations within the relevant Ministries responsible for each HRD sub-system, coupled with relatively limited co-ordination between Ministries. This inhibits the responsiveness of the HRD system to national needs in two respects: cross-cutting issues around access and quality are not addressed in coordinated ways, creating a system of fragmented silos rather than seamless transitions, and the leaders of schools, vocational training institutes, colleges, and universities have very limited responsibility or incentives for improving the quality or performance of their provision.

For these reasons, the Committee has made a number of recommendations to improve decision-making and accountabilities across and within the HRD system. These include the establishment of representative oversight bodies to set policies in each sub-system and also devolving responsibilities for education service delivery to front-line providers. Delivery must be overseen by independent regulatory bodies to assure standards and quality, as well as motivate professional development of staff through systematic licencing and relicencing schemes. Encouraging and incentivising ongoing training and development outside of licencing schemes is also imperative.

Innovation

An innovative HRD system is one in which all of the key decision-makers are continuously seeking to improve the performance of their areas of responsibility and the experiences of the students they serve. It involves adopting approaches and technologies that may be new to Jordan – but are already driving change elsewhere – across the spectrum of reforms, from improvements to current operations, to the introduction of new learning services or pedagogies, to opening new models of provision.

Innovation is not the same as invention; it is most often about identifying, adapting, and adopting good ideas from elsewhere in the world, and is generally most effectively achieved through partnerships with others who are experienced with implementing these new ideas. For this reason, public-private partnerships (PPPs) often provide the most effective means of introducing proven innovations, and the Committee has made a number of

recommendations to this end. PPPs also offer a means of securing additional capacity relatively quickly, sometimes bypassing the constraints of public funding.

Mindset

Finally, the transformation of Jordan's HRD system will require change in the institutional cultures and individual mindsets. There is an opportunity to harness family and community support for education to create the conditions in which, throughout all stages, learners are supported as they progress from one stage to another. Expectations from families should be high – both in relation to the outcomes achieved by their children and to the performance of the HRD system as a whole. Above all, the prevailing mindset must become one of personal and professional responsibility for learning outcomes. To support this mindset shift, high quality information and continuous communications will be key, and the Committee has made a number of specific recommendations in this regard. Effective information sharing is particularly important at the interfaces between the elements of the system, so that, for example, good careers advice is available as those graduating or leaving the system make important choices about where to focus their education in the next stage of their development.

In the following sections, the Committee's findings and recommendations for each sub-system within the national HRD system are summarised; details are provided in the main Strategy Report.

5. Early Childhood Education and Development (ECED)

The learning experiences of very young children lay the crucial foundations for their subsequent personal and intellectual development and prepare them for successful transition into the formal education system. The term ECED here covers all care provision and education for children from birth up to the age of six. This includes informal early learning and developmental experiences within the family, as well as more formal provision in nurseries and kindergartens (KG1 and KG2) in both the public and private sectors. The Committee found significant shortcomings in access, participation and quality of current ECED provision, including:

- A lack of family and community engagement in formal and informal ECED activities.
- Low levels of participation in formal ECED programmes, especially for nursery and KG1 provision.
- Poor quality teaching and facilities, either with no formal curriculum or curricula that are outdated or little used.
- A lack of investment in ECED at national or local levels.
- Knowledge, attitudes, and practices which do not reinforce the connection between early childhood health, nutrition and the development of early childhood learning.

The Committee recommends that reform of the ECED system should be directed towards the following outcomes:

Figure 3: Outcomes sought from the ECED system

FOR THE KINGDOM:

- High scores on the Early Development Instrument (EDI) assessment
- High scores on the Early Grade Maths Assessment and Early Grade Reading Assessment (EGRA and EGMA)
- TIMSS/PISA scores match those in selected benchmark countries (neighbouring, regional, global) or Jordan raises scores to specific target levels
- All early years provision meets international expectations for quality
- Gender parity and more female participation in the workforce
- ECED efforts are well-coordinated between all relevant stakeholders to achieve the largest impact
- Monitor and evaluate all ECED efforts and make related decisions based on accurate data

FOR CHILDREN:

- All children have access to quality early childhood learning experiences (nurseries, KG1, KG2, informal learning) and services (e.g. health, nutrition, psychosocial support)
- All children are taught by appropriately qualified early years educators with a modern curriculum that combines literacy, numeracy and opportunities for imaginative play to develop social and emotional skills in a safe and healthy environment
- All children are fully prepared for the first formal stage in their academic and social lives with the skills, knowledge and expectation that they will need to succeed
- All children experience cognitively stimulating, emotionally supportive home environments with adequate resources
- All children's rights are protected and upheld through the implementation of policies and programmes to support children and families

FOR EMPLOYERS:

- Lower absenteeism rate from female employees because they have the childcare they need
- Enhanced educational attainment and productivity of workers as a result of them having a strong ECED grounding in life

FOR TEACHERS, CAREGIVERS, AND SOCIAL AND HEALTH WORKERS:

- ECED teaching is a well-recognised and respected profession
- ECED teachers are well rewarded and provided with relevant incentives
- ECED teachers receive quality pre- and in-service training as well as adequate supervision and mentorship
- ECED teachers are engaged in sharing best practice and ideas
- ECED teachers are aware of learning difficulties and physical disabilities and can facilitate in their early identification
- Health and social workers in family and child centres receive adequate training and support

FOR THE COMMUNITY:

- Families and communities understand the importance of ECED
- All parents have access to pre and post-natal services and parenting programmes
- Communities are engaged with early years providers to improve ECED provision
- Working parents receive ECED support from their employers

In order to achieve these outcomes, the Committee recommends the following intervention projects, supporting five interlocking objectives. The objective and project numbers in the table below refer to the full report of this Strategy.

Strategic Objectives	Projects
ECED1: Access – Ensure that Jordan's ECED infrastructure and provision develops to provide a basic level of access for all children in Jordan.	ECED 1.1: Increase KG2 capacity and enrolment. ECED 1.2: Increase KG1 and nursery enrolment through encouraging the expansion of private and non-governmental provision that meets specified standards ECED 1.3: Improve the health and nutrition of children and mothers
ECED2a: Quality – Revise, update, and develop the curriculum and assessment framework.	ECED 2a.1: Develop a new curriculum for ECED that meets the needs of young Jordanians
ECED2b: Quality – Improve the quality and size of the ECED workforce.	ECED2b.1: Redesign admissions requirements for teachers and caregivers ECED2b.2: Improve and expand training opportunities for the ECED workforce
ECED3: Accountability – Strengthen accountability and coordination at all levels in the ECED system.	ECED3.1: Reform and consolidate legislation related to ECED provision ECED3.2: Establish a single body to coordinate all ECED activities and decision making ECED3.3: Establish an independent inspectorate for public and private sector nurseries and KG ECED3.4: Introduce an accreditation/qualification system for ECED teachers and caregivers ECED3.5: Create data-led decision processes to facilitate continuous system wide improvement
ECED4: Innovation – Use innovation to leverage change in ECED.	ECED4.1: Better use technology and the media to support improvements in ECED provision ECED 4.2: Examine feasibility of and pilot innovative financing approaches to ECED
ECED5: Mindset – Mobilise families to support learning, health, nutrition and social protection at home and school.	ECED 5.1: Improve training outreach to parents and other primary caregivers ECED5.2: Mobilise families to better support learning and early childhood development at home and increase their engagement in their child's formal learning

The government and the public should measure success in terms of the Key Performance Indicators (KPIs) and five- and 10-year targets shown here.

KPI	5-year target	10-year target
Enrolment rates in KG2, KG1 and nursery.	80% KG2 Enrolment 25% KG1 Enrolment 10% Nursery Enrolment	100% KG2 Enrolment 35% KG1 Enrolment 20% Nursery Enrolment
Percentage of KG2, KG1 and nursery teacher and caregiver completion of pre-service training, and percentage completion of in-service training in the last two years	50% caregivers complete pre-service training 50% caregivers completing over 20 hrs CPD/year in the last two years	75% caregivers complete pre-service training 75% caregivers completing over20 hrs CPD/year in the last two years
Proportion of KG2, KG1 and nurseries ranked as 'good' or 'outstanding' (according to the proposed inspectorate)	30% of KGs and nurseries rated 'good' or 'outstanding'	70% of KGs and nurseries rated 'good' or 'outstanding'
Scores on the Early Development Instrument (EDI) assessment and the Early Grade Maths Assessment and Early Grade Reading Assessment (EGRA and EGMA)	EDI: Increase % of children 'ready to learn' by 7.5% EGRA and EGMA: Reduce % of students with zero scores by 5% Increase in mean score for each subtask by 10 points	EDI: Increase % of children 'ready to learn' by 15% EGRA and EGMA: Reduce % of students with zero scores by 10% Increase mean score in each subtask by 20 points
Proportion of parents and other primary caregivers who demonstrate relevant knowledge, attitudes and practices towards early childhood learning, health, nutrition and social protection	Baseline + 15%	Baseline + 30%

6. Basic and Secondary Education

The Committee believes that the role of schools should be to ensure that every child is supported to realise their potential, develop a love for learning and for Jordan's national values, acquire valuable knowledge and skills, gain important qualifications, and prepare for a happy and prosperous life.

The main challenges for Jordan's schools are:

- A curriculum and assessment system that is outdated and does not meet the requirements of today's society and the labour market.
- A high stakes secondary leaving examination (Tawjihi) that fails the majority of students without offering alternative, attractive options or support for those who fail.
- A teaching profession that is not attractive to high quality applicants, does not provide them with suitable initial or continuing teacher education, and does not support or motivate them enough.
- A substantial increase in student numbers due to domestic demographics and Syrian refugees which is placing major strains on existing capacity.
- A limited capacity to provide equitable education to the most in-need students both in terms of access and quality education leading to differential learning outcomes.
- A lack of effective accountability and effective leadership throughout the system (from school level to the Ministry).
- A lack of community and family engagement in informal and formal education
- An absence of reliable data to drive and inform data-led decision processes.

These challenges are reducing the quality of education received by all Jordanian school children and restricting growth and improvement of the system. The Committee believes that our schools system should aspire to deliver the following outcomes for its stakeholders:

Figure 4: Outcomes sought from the national schools system

FOR THE KINGDOM:

- The system prepares Jordanians for work and life
- Research and data analysis identify challenges which are addressed by nimble, well-coordinated, and strategic policy process
- Jordan publishes data showing progress on student performance, teacher quality, violence levels and other indicators to further drive improvement
- Percentage of TIMSS, PISA, EGRA & EGMA scores match those in selected benchmark countries (neighbouring, regional and global) and specific target levels set by the Government

FOR STUDENTS:

- All students have access to excellent teaching and modern curricula that puts students at the centre of high quality learning environment
- Students are clear on the their career options and supported in making the right decisions
- Students are well prepared for the next stages in education and well equipped for work and life

FOR EMPLOYERS:

- Employers are engaged in curricula development early on to align skills needed
- Employers recruit from a talented pool of people that meet their needs
- The private sector complements the public sector in both financing and delivery of education services by providing capital investments, private sector rigor, and performance management experiences to advance the expansion of education provision

FOR TEACHERS:

- Being a teacher is a well recognised, respected, and fulfilling profession
- Teachers are well rewarded and provided with relevant incentives
- Teachers receive quality pre and in-service training
- Teachers are engaged in communities of practice to share best practice and ideas

FOR PARENTS AND THE COMMUNITY:

- Communities are engaged with providers to improve school provision
- Education continues at home and in the community throughout all stages of life

In order to achieve these outcomes, the Committee recommends the following intervention projects, supporting five interlocking objectives. The objective and project numbers in the table below refer to the full report of this Strategy.

Strategic Objectives	Projects
B&SE1: Access – Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand.	B&SE1.1: Open new schools strategically. B&SE1.2: Rationalise poor performing small schools. B&SE1.3: Increase capacity to serve students with disabilities. B&SE1.4: Improve provision for Syrian refugees. B&SE1.5: Expansion of a national-level General. Equivalency Diploma system to cover all out-of-school children and youth. B&SE1.6: Improve school environments to ensure that they are safe, nurturing, and healthy.
B&SE2a: Quality – Modernise the curriculum and assessment framework through establishing an independent body.	B&SE2a.1: Establish a National Centre for Curriculum and Assessment. B&SE2a.2: Modernise the Basic and Secondary curriculum. B&SE2a.3: Modernise and align Tawjihi and other key assessments.
B&SE2b: Quality – Improve the quality of the workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training.	B&SE2b.1: Reform admissions process at universities for fields related to education. B&SE2b.2: Improve teachers' selection process. B&SE2b.3: Establish an Initial Teacher Education Programme. B&SE2b.4: Develop comprehensive in-service teacher training.
B&SE3: Accountability **–** Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry).	B&SE3.1: Introduce a teacher licencing system. B&SE3.2: Devolve more responsibilities to the Field Directorate and school level. B&SE3.3: Introduce a school leader certification and licencing system. B&SE3.4: Revise the teacher ranking system and appraisal process. B&SE3.5: Leverage MoE accountability structures to drive public and private school quality. B&SE3.6: Improve data quality and use of data to aid accountability and improvement.
B&SE4: Innovation **–** Use innovation and technology to leverage change in schools.	B&SE4.1: Explore innovative financial mechanisms to accelerate improvements in provision and quality. B&SE4.2: Stimulate growth in high quality private provision. B&SE4.3: Strengthen the use of technology to modernise teaching and learning.
B&SE5: Mindset – Mobilise families and parents to support learning at home and in schools.	B&SE5.1: Mobilise families and parents to support learning at home. B&SE5.2: Mobilise families and parents to support learning in schools.

The government and the public should measure success in terms of the Key Performance Indicators (KPIs) and five- and 10-year targets shown here.

KPI	5-year target	10-year target
Number of new schools opened	300 new schools for 125,000 extra students	600 new schools for 250,000 extra students
TIMSS Test Scores	489 in Science 446 in Math	509 in Science 466 in Math
Percentage of teachers attending over 80 hours of training every year	50%	75%
Percentage of parents reading with their children	60%	70%

7. Technical and Vocational Education and Training (TVET)

The importance of a strong TVET system has been recognised by His Majesty King Abdullah II, and in other key plans such as *Jordan 2025* and the *National Employment Strategy*. Although progress has certainly been made over the last 15 years, like many countries across the world, the negative perceptions of TVET among students and families persist. TVET is regarded as a second class route for students, who continue to display clear preferences for academic and university education and public sector careers, even when this means almost certain periods of extended unemployment following graduation.

Particular issues identified by the Committee include:

- Fragmentation across the whole TVET system and a failure of coordination and strategic policy alignment over more than 15 years.
- An approach to TVET financing that perpetuates supply-driven TVET.
- A 10:1 imbalance between students entering universities (mainly for non-vocational course) and those pursuing technical and vocational programmes.
- Poor employer perceptions of the quality of TVET, and of the employability of students graduating from such programmes.
- A lack of high quality TVET programmes at HE levels, whether in universities or specialist providers.
- Very limited employer engagement in TVET, whether pre-tertiary, college- or university-based or in the workplace.
- Critical shortages of qualified craftsmen and technicians to fill vital workplace roles, coupled with a surfeit of graduate engineers and scientists.

The Committee believes that the National HRD Strategy must seek to reverse these patterns and move towards the creation of a highly-regarded, world class TVET system at all levels, to develop the talents needed to enhance national competitiveness, and to create an enabling environment for job-creation. The outcomes from such a system for national stakeholders would be as shown in Figure 5 below.

Figure 5: Outcomes sought from the national TVET system

FOR THE KINGDOM:

- The TVET sector is acknowledged as a key driver of economic development in Jordan and is seen as the engine of the nation's prosperity
- TVET provision is aligned with and supports national employment and labour market strategies and national growth priorities
- TVET provision meets international quality standards and prepares students for employment nationally, regionally or internationally
- There are clear pathways in place whereby those entering or already in the workforce and those who are unemployed can benefit from TVET provision and progress their careers

FOR STUDENTS:

- TVET provision fully prepares students for employment through a focus on practical experience, entrepreneurialism and skills fully aligned to the needs of the economy
- Guidance and advice is made available to students from an early age to enthuse them for career opportunities afforded by a TVET path
- TVET is delivered by high quality trainers with practical experience and using up to date equipment
- TVET paths are highly sought after, with clear progression through the education system and career opportunities thereafter

FOR EMPLOYERS:

- The provision of TVET in Jordan is fully aligned with and responsive to the evolving needs of employers, as articulated in the *National Employment Strategy*
- Employer input is actively sought and incorporated in TVET programme development
- The TVET sector delivers a steady stream of high quality employees with internationally recognised qualifications and relevant practical training and skill sets
- Employers are supported in providing lifelong learning opportunities and development opportunities for their employees

FOR TVET TRAINERS:

- TVET teaching and training is a well-respected profession that attracts high calibre candidates
- TVET trainers are fully engaged with current industry practices and requirements and complete regular placements
- Trainers receive comprehensive pre and in-service training
- Trainers across all TVET provision have clear progression opportunities and are appropriately remunerated

FOR PARENTS AND THE COMMUNITY:

- The importance of TVET is recognised and technical and vocational career paths are accorded the same prestige as academic paths by the community
- Parents are informed about TVET opportunities and career paths and encourage their children to consider these on a par with university paths
- The community recognises and celebrates the contribution that technical and vocational careers make to the local and national economy
- The standards of education and experience required from TVET tutors and training are recognised and respected across the community

In order to achieve these outcomes, the Committee recommends the following intervention projects, supporting five interlocking objectives. The objective and project numbers in the table below refer to the full report of this Strategy.

Strategic Objectives	Projects
TVET1: Access – Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET.	TVET 1.1: Approve the National Qualifications Framework (NQF) TVET 1.2: Degree-level TVET programmes and provision TVET 1.3: Equal pay for TVET graduates TVET 1.4: Licencing for craftsmen and technicians
TVET2: Quality – Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector.	TVET 2.1: Establish standards and training requirements for TVET trainers and instructors TVET 2.2: Accreditation and grading system for all TVET trainers TVET 2.3: Transfer the CAQA to the SDC TVET 2.4: Align TVET provision to the *National Employment Strategy* and *Jordan 2025* goals
TVET3: Accountability – Put in place clear governance structures to ensure accountability across the sector.	TVET 3.1: Design and establish the SDC TVET 3.2: Enforce/facilitate the use of data to inform policy and decisions
TVET4: Innovation – Innovate funding and provision through transforming the E-TVET Fund, public-private partnerships, and expanding innovative modes of delivery.	TVET 4.1: Establish a private-sector led Skills Development Fund TVET4.2: Establish new PPPs aligned with priority clusters identified in *Jordan 2025* TVET 4.3: Expand apprenticeship programmes
TVET5: Mindset – Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system.	TVET 5.1: Schools-based careers guidance and exposure to design and technology TVET 5.2: Participation of Jordan in the WorldSkills competition TVET 5.3: Reform the current system for the MoE VET stream and delink VET from low scholastic achievement

The government and the public should measure success in terms of the Key Performance Indicators (KPIs) and five- and 10-year targets shown here.

KPI	5-year target	10-year target
Percentage of Employers 'Satisfied' or 'Very Satisfied' with the skills and abilities of labour market entrants holding TVET certificates	Baseline + 20%	Baseline + 40%
Participation rates in TVET by agency as a percentage of all participants of education/training	22%	30%
Percentage of firms offering formal training	20%	36%
Percentage of TVET graduates employed / self-employed / in further education and training nine months after completing training	Baseline + 10%	Baseline + 30%

8. Higher Education

Despite numerous achievements in the development of higher education in Jordan, recent years have witnessed a decline in quality of educational outputs in several aspects: legislation is not consistently enforced, and is not conducive to a holistic system that addresses weaknesses. For example, admissions policies do not guarantee entering students are sufficiently prepared, financial resources are inadequate to ensure quality, gaps remain between educational outputs and labour market needs, and scientific research is producing few tangible benefits for the national knowledge economy. University climates are not conducive to positive educational outcomes, as they currently they do not encourage students and faculty to modernize teaching and learning processes, engage in open dialogue, exchange new ideas, or foster critical thinking.

The Committee identified needs for change in the HE system in order to:

- Establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes.
- Raise the standards of HE teaching and learning to those expected from the best modern universities.
- Raise scientific research quality to match international best practices and address national priorities.
- Encourage universities to take greater responsibility for making significant contributions to national economic and social goals.
- Ensure a learning environment that promotes innovation and excellence, and cultivates a culture of responsibility, respectful dialogue, fairness and national unity.
- Integrate technology in higher education to raise and quality and relevance of educational outputs.

Changes in these areas will help bring about a modern, inclusive and responsive HE system that provides the following benefits to its stakeholders:

Figure 6: Outcomes sought from the national HE system

FOR THE KINGDOM:

- The HE system develops and grows the human, intellectual, and social capital of the economy and communities
- High graduate employment in industries and fields that have been identified as priorities for economic growth
- The HE system acts as a catalyst for innovation for the Kingdom as a whole, fosters entrepreneurialism and develops relevant skills among its graduates

FOR STUDENTS:

- Post secondary students have affordable access to a high quality HE system
- Students are supported and well informed about employability when making choices about post-secondary paths
- The HE system develops up-to-date technical skills as well as the range of transferable skills required for employment in the 21st century

FOR EMPLOYERS:

- The HE system supports the development of a highly skilled and enterprising workforce
- Employers enjoy strong links with universities

FOR FACULTY:

- The HE system attracts and rewards academic talent and commitment to learning
- Faculty are supported to focus on delivery of high quality teaching rather than overburdened with administrative duties
- Faculty are encouraged to play a role in institutional leadership

FOR PARENTS AND THE COMMUNITY:

- University tuition fees are affordable and mechanisms are in place to support students
- Universities are agents of innovation and change in the community
- Parents are aware of the employment opportunities associated with specific majors

In response to the analyses summarised above, and the imperatives for establishing a modern, value-producing HE system, the Committee proposes 15 projects designed to achieve the strategic objectives as shown below.

Strategic Objective	Projects
HE1: Access – To establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes.	HE1.1: Unified Admissions System for Undergraduate Degrees, to include gradual phasing out of parallel programme and restructuring of certain exceptions HE1.2: Adapt key degree programmes to include a foundation year HE1.3: Student guidance and career counselling HE1.4: Expand student financial assistance
HE2: Quality – To raise the standards of HE research, teaching and learning to those expected from the best modern universities.	HE2.1: Accreditation of professional programmes and adherence to Quality Assurance standards HE2.2: Review and streamline existing programmes and majors offered HE2.3: Enhance teaching capacity HE2.4: Measure, monitor, and report on teaching and scientific research quality HE 2.5: Create university learning environments that promote excellence and innovation
HE3: Accountability – Incentivise and encourage universities to take greater responsibility for making significant contributions to national economic and social goals.	HE3.1: Strengthen HE governance bodies HE3.2: Review and clarify process of university president selection and appointment HE3.3: Strengthen incentives for effective resource management
HE4: Innovation – To enable the adoption of international best practices in teaching and learning that will support improved access and quality.	HE4.1: Establish an HE Innovation and Development fund HE 4.2: Upgrade technological infrastructure and tools across HE campuses and promote use of Open Educational Resources (OERs)
HE5: Mindset – To instil stakeholder understanding of the national purposes and benefits of higher education, and promote informed engagement with the system.	Almost all of the measures outlined under HE1 to HE4 above are designed to change attitudes and behaviours among stakeholder groups, collectively addressing this objective.

The government and the public should measure success in terms of the Key Performance Indicators (KPIs) and five- and 10-year targets shown here.

KPI	5-year target	10-year target
Percentage of students admitted with less than minimum entry requirements.	50% reduction in entrants below minimum standards	No students entering below minimum standards
Percentage of undergraduate students with demonstrated need receiving some form of financial support.	40% of undergraduate students with demonstrated need receiving financial aid	60% of students with demonstrated need receiving some form of financial support
Number of universities that meet the quality assurance standards set by the HEAC.	All private universities and 5 public universities	All universities, public and private
Unemployment rates of university graduates under 30 years old.	16%	14%
Percentage of public funds contingent on programme performance and efficiency.	80%	100%

9. Making strategy into reality

To deliver any value for Jordan, this Strategy must be effectively implemented. Past efforts at HRD reform in Jordan have often not delivered all the benefits desired from them, in part because of poor implementation.

This HRD Strategy is fundamentally about mobilising changed behaviours – driving change through people. That behavioural change will not be brought about simply because a strategy says that it should be; real change will only happen when individual people (children, students, learners, teachers, civil servants, and even Ministers involved in HRD) adjust what they do and how they do it. A real focus on what levers will make that happen is a fundamental enabler of strategic success.

This strategy has been designed to ensure implementation. Firstly, implementation has been designed in from the start by defining the practical elements of how each set of projects will be implemented– who will need to own them, the sequencing, and the practical activities and resources required. This approach also considers how strategic objectives can best be achieved – for example by encouraging private sector investment rather than relying on public funding, through blended finance instruments by donors, and through partnerships with private sector players (PPPs), international organisations and the third sector.

Secondly, the environment for delivery will be paramount. Delivery of the proposals within the Strategy will require clear implementation structures, processes and cultures to be put in place – leadership, ownership, responsibilities, funding, accountability, monitoring, and review. The figure below illustrates the requirements for an effective implementation environment, based on observed best practice in national change programmes around the world. Within this framework, the Committee has prioritised three critical capabilities, and has made recommendations for supporting each.

Figure 7: Requirements for effective delivery of system reforms

The critical capabilities identified by the Committee are:

- Governance structures with the necessary autonomy, authority, and accountability mechanisms to drive forward the implementation of the HRD strategy. This will include: an HRD Reform Board to have long term ownership of the Strategy that holds those charged with implementation accountable to agreed timelines, and that has the authority derived from something beyond any one government; an independent HRD Results and Effectiveness Unit – the full-time delivery capacity of the HRD Reform Board - to act as a watch-dog on the entire HRD reform and to drive results; and, an Executive HRD Working Group Committee, comprising Ministers and heads of implementing agencies, to coordinate the delivery of the HRD Strategy
- A cadre of capable civil service staff through training leadership and delivery staff and recruitment to attract new talent to ensure sustained delivery
- Engagement with internal and external stakeholders to ensure coordination of efforts and generate public support for the strategy.

The Committee has made nine recommendations for securing these capabilities, summarised here:

Strategic Objectives	Projects
IMP1: Establish structures with the necessary autonomy, authority, and accountability mechanisms to drive forward the implementation of the HRD strategy.	IMP1.1: Create an HRD Reform Board IMP1.2: Create the independent HRD Results and Effectiveness Unit IMP1.3: Create the Executive HRD Working Group Committee IMP1.4: Evaluate the effectiveness of the MoE Education Quality and Accountability Unit and draw from lessons learned to build accountability units in the MoHESR, MoL and MoSD
IMP2: Create a cadre of capable civil servants through training and recruitment to make delivery sustainable.	IMP2.1: Design and implement a capacity-building plan for civil service leadership and delivery staff IMP2.2: Create a Civil Service Fast Stream Programme to recruit high achievers to HRD positions in Ministries
IMP3: Engage internal and external stakeholders to generate trust in and support for the Strategy.	IMP3.1: Create comprehensive internal communications plan for Ministry employees IMP3.2: Carry out public-facing communications plan to build public trust in the strategy
IMP4: Ensure that the HRD Strategy has sufficient financial resources and that the country's resources are aligned with the HRD Strategy.	IMP4.1: Develop an HRD Funding Plan

10. The road map towards a stronger HRD system

This HRD Strategy sets the direction and progress for cumulative reforms of the HRD system over the next ten years. The programmes of change and the specific initiatives outlined in the preceding sections have been designed to be introduced in phases over the strategy period, as illustrated here:

Figure 8: Phases of the HRD Strategy Delivery Plan

The phases are designed to build on each other:

Phase 1 – Short-term changes:

Implement pending and agreed projects (e.g. QRTA's Initial Teacher Education Programme), fast-track 'quick wins' and pilot projects (e.g. first mobilisation campaigns, single track entry for medicine), and put in place pre-requisites to further changes (e.g. sector skills councils)

Phase 2 – Implement new initiatives:

Develop and roll out new services (e.g. careers, in-service training, apprenticeships) and design and introduce new regulations (e.g. licencing technicians and craft jobs)

Phase 3 – Roll out system-wide reforms:

Full implementation of major change programmes (e.g. reform of Tawjihi, completion of reform of HE admissions, new degree-level technical provision and programmes).

The schedule has been created on the basis that most of the major elements of the HRD reform change programmes can be designed and implemented within six years. The remaining four years of the 10-year Strategy will be concerned with benefits realisation, as changes feed through to further cohorts of learners and new behaviours become embedded. In practice, the strategic review and refresh exercises to be carried out at the end of three years and six years may well identify needs for refining specific activities or further change programmes during this period.

The HRD Strategy summarised here, and described in greater detail in the main report, is crucial to Jordan's future. The Kingdom has the opportunity to embrace changes that will build a world class education and skills system of which all can be proud, and which will support delivery of the national vision set out in Jordan 2025 and other national strategies. The National Committee for Human Resource Development commends this Strategy to His Majesty King Abdullah II, the Government and the Kingdom, and urges its rapid endorsement and implementation.

1

INTRODUCTION

1 INTRODUCTION

1.1 The Urgent Need for Change

Education has been a priority in Jordan since the Kingdom's establishment. This has been a deliberate decision due to the lack of natural resources – investing in education has been deemed the best investment compared to other domains. Thus, the progress of education in Jordan for many years exceeded, in terms of quality and quantity, other countries in the region.

Despite these achievements, progress has stalled: the education system is no longer achieving the results the Kingdom needs. Youth unemployment is 31.8%[1], and total workforce participation is only 41%[2]. There is an oversupply of university graduates and undersupply of skilled technicians to power Jordan's key industries. Every year, large numbers of young Jordanians fail Tawjihi, without clear alternative pathways or support. These facts and figures do not convey the personal stories and struggles of learners who cannot find jobs or build lives for themselves, parents who worry about their children's futures, employers who struggle to find workers with the skills they need to grow their businesses, and leaders concerned with the fate of the nation.

In response to these problems, as well as the broader challenges of adapting to a massive influx of refugees amidst regional conflict and economic uncertainty, a new socioeconomic vision for the Kingdom, *Jordan 2025*, was created in 2015. Following this, His Majesty King Abdullah II has called for the development of an 'integrated, comprehensive, strategic, and well-defined system for human resource development' in alignment with the new vision. His Majesty therefore issued a Royal directive in March 2015 to convene a National Committee to develop a national Human Resource Development (HRD) Strategy.

This Strategy is the response to that Royal directive. In addition to building on the *Jordan 2025* vision, it draws from other national strategic documents, including the *National Employment Strategy*. It builds on the lessons learned from successful previous initiatives and existing projects which are already in motion. Most importantly, it identifies a package of clear priorities and actionable programmes to restructure the HRD system so that it produces results for all Jordanians.

Whereas many past efforts have focused on defining *what* Jordan needs to achieve, this Strategy offers a different approach by focusing also on *how* to translate these goals into real change on the ground. The recommendations here have been designed with the requirements for successful implementation in mind, providing an action plan to ensure Jordanians have the skills and opportunities they need to build a vibrant, prosperous future.

[1] ILO, 2014.

[2] World Bank, 2014.

1.2 The Structure of this Document

The structure of the Strategy is organised around a framework (Figure 1.1) in order to:

- Harmonise the recommendations with the national plans aimed at achieving Jordan's 2025 vision
- Align the recommendations with principles reflected in a world class HRD system
- Design implementation into the Strategy from the start.

Figure 1.1: Strategy framework

The top three layers of the model - Strategic Goals, Governing Principles, and Outcomes Sought - are covered in Section 2 of this document. These are then translated into a set of changes required in Sections 3 to 6 covering each of the following in turn:

- Early Childhood Education and Development (ECED)
- Basic and Secondary Education – school grades 1 to 12
- Technical and Vocational Education and Training (TVET)
- Higher Education (HE).

In each case, an assessment of best practice is presented followed by an evaluation of Jordan's performance against those benchmarks. Each Section then presents a programme of change responding to the findings from this analysis. In each case the results are presented against the guiding principles of Quality, Access, Innovation, Accountability, and Mindset (as described in Section 2).

Finally, this document sets out an approach to implementation – supported by a roadmap with targets and milestones in Appendix A, Key Performance Indicators (KPIs) in Appendix B and cost estimates in Appendix C.

1.3 The Strategy Development Process

The National Committee for Human Resource Development undertook a collaborative approach to produce this Strategy and implementation plan. The members of the committee were:

- H.E. Dr. Wajih Owais: President of the Committee, Senator, former Minister of Higher Education and Scientific Research, former Minister of Education, former President of Jordan University of Science and Technology, Vice Chairman of HRH Crown Prince Hussein bin Abdullah II Foundation Board of Trustees
- H.E. Mr. Said Darwazeh: Chairman and CEO of Hikma Pharmaceutical, Chairman of Queen Rania Foundation Board of Directors, former Minister of Health, Chairman of Jordan University of Science and Technology Board of Trustees
- H.E. Ms. Suhair Al Ali: Former Minister of Planning and International Cooperation, former General Manager and CitiGroup Country Officer
- H.E. Mr. Samir Murad: former Minister of Labour, President of Said Murad & Sons for Trade & Investment
- H.E. Ms. Haifa Najjar: Senator, Superintendent of the Ahliyyah School for Girls and the Bishop's School for Boys
- Dr. Abdullah Ababneh: President of the National Centre for Human Resources Development
- Dr. Abdel Nasser Abu Albasal: Former President of International University of Islamic Sciences.
- Dr. Ahed Al-Wahadni: Former Vice President of Jordan University of Science and Technology (JUST), Official Representative of QS World-Class University Organization, Professor at JUST
- Eng.Ali Nasrallah: Consultant for TVET
- Mr. Ayman Mazahreh: Chief Executive Officer of STS and founding member of Oasis 500
- Dr. Amal Nusair: Professor at Yarmouk University, Assistant to the President of Yarmouk University
- Dr. Taghreed Abu Taleb: Vice Chairman of Queen Rania Foundation Board of Directors, Early Childhood Education Professor at the University of Jordan
- Ms. Haifa Dia Al-Attia: Chief Executive Officer of Queen Rania Foundation, former education advisor at the Office of the Crown Prince, Vice President of the International Baccalaureate Organisation, and consultant to the Aga Khan Academies.

The committee was supported by a range of sub-committees formed around specific topics; with each sub-committee coming out with recommendations which were then considered by the National Committee in the drafting of this Strategy. The sub-committee topics were:

General Education

- Early Childhood Education and Development
- Curriculum
- Teacher Training
- General Secondary Examination – Tawjihi

Higher Education

- Admissions Criteria
- Admission Policy – Exemptions (Makromat)
- Higher Education Governance
- Higher Education Parallel Programme

Technical and Vocational Education and Training

- Technical Education
- Vocational Education
- TVET Governance
- Public Private Partnerships and Alignment to Labour Market Needs
- Infrastructural Development and Technical and Administrative Capacity Building

Cross-cutting Issues

- Education and Employment of Syrian Refugees
- Monitoring and Evaluation for Programmes in Education
- Jordanian and Foreign Labour
- Integration of Technology in Education
- The Public Sector
- Care of Youth

This is a national Strategy – as such, the process to develop it has involved ongoing stakeholder engagement to take into account as many perspectives as possible and identify comprehensive and holistic recommendations. These activities culminated in a major event on the 24th of April 2016 which brought together approximately 300 representatives from across the HRD system to reflect and reaffirm their commitment to the Strategy in advance of its launch.

2

VISION

2 VISION FOR THE FUTURE

2.1 A System Capable of Delivering *Jordan 2025*

2.1.1 The aspirations the HRD system should help to deliver

Jordan finds itself at a critical juncture: the Kingdom has advanced considerably in areas of socioeconomic development in recent years and has successfully established itself as an upper-middle income economy, but challenges remain which could inhibit further progress. Figure 2.1 below summarises the opportunities and the challenges.

Figure 2.1: Opportunities driving growth and challenges restricting growth[3]

To build on these opportunities and address these challenges, *Jordan 2025* sets out an ambitious vision for a Prosperous and Resilient Jordan, underpinned by four pillars (see Figure 2.2).

[3] World Bank, 2014.
World Economic Forum, 2016.
ILO, 2014.
Department of Statistics, 2015.

Figure 2.2: Pillars of *Jordan 2025* Vision: the aspirations for the future of the Kingdom

Jordan 2025 also identifies eight high potential priority clusters to promote economic growth and drive job creation, shown in Figure 2.3.

Figure 2.3: *Jordan 2025* priority clusters

His Majesty King Abdullah II has emphasised that the vision of *Jordan 2025* can only be delivered if there is a commensurate change in the way that the Kingdom develops its human resources across all education levels, from early childhood to employment. The current system needs to adapt to these new ambitions and priorities.

2.1.2 A system that is resilient to internal and external pressures

In addition, two factors in particular have the potential to amplify opportunities or intensify challenges for development – the ongoing projected growth in the youth population and the external shocks to the system as a result of displaced Syrians seeking safety in Jordan.

The majority of the population in Jordan, 55.7%, is under the age of 25 and the population is expected to grow by 1.4% per annum for the next decade, which means that until 2025, the working age population (15-64) will be greater than the dependent population[4]. This presents a major opportunity – but improvements in education and training are imperative to ensure that the population has the skills needed to drive productivity and growth.

The situation of Syrian refugees in Jordan also has a major impact on Jordan's prospects for continued growth and development – the support and generosity Jordan provides to the approximately 1.3 million Syrians[5] (including refugees and residents) within the Kingdom's borders is well known. Increased efforts are needed to improve quality and access to education for both Syrian refugees and vulnerable Jordanians.

Education is the key to transforming these daunting population trends into opportunities for growth and development. However, significant changes are required across Jordan's education and training systems to realise this goal.

2.2 The Current State

There is a proud history of education in Jordan, which provides some strong examples of recent change initiatives:

- **Leadership and Teachers:** The Queen Rania Teachers Academy (QRTA), Jordan Education Initiative (JEI), and the Early Grade Reading and Mathematics Project (RAMP) are all examples of successful initiatives aimed at improving student learning through teacher training. QRTA's efforts are now being expanded through a new Initial Teacher Education Programme.
- **Enrolment and Literacy:** The Kingdom has high enrolment rates for primary, secondary, and higher education compared to countries of similar income levels. Jordan had already achieved gender parity in primary enrolment in 1979[6], in contrast to the average upper middle income country which still enrols more boys than girls[7], and has one of the highest female literacy rates in the region, at 95.2%[8].
- **Funding:** International donor agencies have shown they are willing and able to invest in education initiatives in Jordan if the initiative has clear objectives and a well-designed plan.
- **Governance:** The Ministry of Education (MoE) is devolving responsibilities to its Field Directorates and schools, presenting greater opportunities for teachers, school leaders, and communities to improve the system from within.
- **Data Management:** With the support of UNESCO, the MoE has developed a new Education Management Information System (EMIS)[9] to enable data-driven decision making for primary and secondary education.

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[4] *Jordan 2025.*

[5] Department of Statistics, 2015.

[6] World Bank, 2015.

[7] UNESCO, 2014.

[8] UNESCO, 2015.

[9] An Education Management Information System is designed to collect and report data, provide standard education indicators and data visualisations to facilitate planning and data-driven decision making for government agencies and school leaders.

- **Piloting new approaches:** The Ministry of Labour (MoL) has supported the establishment of Model Skill Centres of Excellence (MSCoE) for vocational training in the form of public-private partnerships which can provide a foundation for future efforts.

HRD reform in Jordan should seek to build on such strengths, but impact will be limited without significant efforts to tackle fundamental challenges in the system itself. Understanding the root problems will help build a more effective strategy. Challenges include:

- **Governance**: Governance tends to be centralised across all stages of education and training and is often fragmented across more than one entity without clear coordination and communication channels or an overall clear strategy.
- **Quality assurance**: Quality assurance measures and systems are not routinely enforced to ensure continuous monitoring, evaluation and enhancement of the system.
- **Educators**: At the K-12 level, teacher quality has declined due to lack of targeted recruitment and inadequate pre-service and in-service training, and outdated teaching methods persist at the tertiary level.
- **Private sector provision**: There has been insufficient deliberate planning throughout the system to promote the development of quality private provision to help fill gaps in public sector offerings.
- **Mindset change**: Jordanian families greatly value education but do not always see themselves as having an active role in their children's learning journey, and hold certain high-value educational pathways, e.g. TVET, in low regard.
- **Employer engagement**: There has been minimal employer engagement to identify the relevant skills learners should develop despite the well-understood need for the education system to meet the demands of the labour market.
- **Funding and innovation**: Understanding of funding is limited to traditional sources (i.e. government and direct donor assistance) which may not be sustainable in the long run.
- **Low regard and demand for technical and vocational pathways**: A severe imbalance in the number of students pursuing academic versus vocational pathways in secondary and tertiary education.

These issues are explored further in relation to the individual areas of the HRD system in Sections 3 to 6 of the Strategy.

2.3 Governing Principles for Reform

Jordan's HRD Strategy will reflect key principles (see Figure 2.4) that successful systems around the world embrace – this includes not only top-performing systems but systems which have made rapid improvements as well.

Figure 2.4: Governing principles for reform

The vision for how each principle will be realised in the future HRD system in Jordan is outlined below.

2.3.1 Access

All learners have fair access to education, equal opportunities at every stage of their education journey, and a minimum level of attainment regardless of their background, gender, disability, or individual needs. Every learner has a fair chance to pursue the pathways best suited for them based on their performance and capability.

2.3.2 Quality

Our system strives to provide world class experiences and outcomes for all involved. It aligns with the needs of the local and global economy. It is globally respected and meets, if not exceeds, international standards through accreditation and certification. We continually monitor ourselves to identify and implement improvements.

2.3.3 Accountability

The regulation of our system is based on a transparent set of rules for decision-making. We empower institutions to take responsibility for their performance through delegating responsibilities and devolved, local decision-making. Setting SMART (Specific, Measurable, Attainable, Relevant, and Time-Bound) targets and regular reporting supports us in holding all stakeholders accountable for their respective responsibilities. Learners are accountable for doing their best and using the resources and information available to find the right path for them.

2.3.4 Innovation

Our system delivers the outcomes needed through innovative and creative approaches and the thoughtful use of technology. We identify innovative ideas around the world and adapt them to meet our unique needs in Jordan. We use international and public-private partnerships and innovative approaches to financing to do more with less. We make the most of our successes through shared practice and learning across the system.

2.3.5 Mindset

Our system instils our national values in our learners, honours our heritage, and promotes unity in our citizenry. The parents and communities of our learners are engaged and involved with their educational institutions, creating a wide support network which promotes the value of education, lifelong learning and being productive members of society and the economy.

2.4 The Vision and Objectives for the HRD Strategy

Based on these principles and the strategic needs outlined above, the following vision has been defined as the basis for the Strategy which is set out in the rest of this document.

Jordan's HRD system will enable the Kingdom to meet its goals for sustainable development, which includes the development of the nation in economic, cultural, social and environmental terms. It will ensure current and future generations develop the skills and capabilities they need to live happy and fulfilled lives and collectively realise the ambition of a prosperous and resilient Jordan.

Specifically, the HRD system will deliver the following:

- For the Kingdom: a workforce with the skills, qualifications, capabilities, and behaviours necessary to achieve Jordan's economic and societal ambitions
- For children, students and learners: the opportunity to realise their full potential as happy, healthy, empowered, and active citizens who have a love of life-long learning and who follow their own aspirations – academically, economically, and socially
- For education providers and teachers: the capacity and tools to support learners across the Kingdom to realise their ambitions – with respect, fulfilment, and rewards to match
- For the community as a whole: a system for education and HRD of which all can be proud and which contributes to productive, collaborative, and resilient communities.

While drawing from best practice from around the world, this approach to HRD reform is customised to Jordan's specific needs and aspirations.

HRD will be focused on strategic national goals and clear priorities. At the same time, it will be resilient to external and internal challenges and responsive to the changing global context, adapting approaches to teaching and learning to enable individual and national success in a rapidly changing world.

These reforms and this vision strive to achieve the following, which encompass the objectives for the HRD Strategy:

- By 2025, ensure that all children have access to quality early childhood learning and development experiences that promote primary school readiness, ensure healthy lives, and promote their future wellbeing
- By 2025, ensure that all children complete equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- By 2025, substantially increase the number of youth and adults who have relevant technical and vocational skills for employment, decent jobs, and entrepreneurship
- By 2025, ensure fair access to affordable, relevant, and quality university education opportunities.

2.5 Implementation

The HRD Strategy is above all a programme for mobilising changes in the way people work, act, and think. Effective implementation is therefore at its heart. To meet this need, implementation is addressed in this Strategy in two ways:

- By designing recommendations which take into account how they need to be implemented, not just what they should do: this means considering the requirements for practical implementation in the way that individual programmes and projects are defined. These recommendations are described in Sections 3 to 6 which cover the individual stages of HRD
- By creating the conditions for successful and sustainable implementation: this means considering ownership, responsibilities, funding, accountability, monitoring and evaluation in order to create the environment in which implementation can be successful and sustainable over the course of the 10 years. This is outlined in Section 7 of this Strategy.

3

EARLY CHILDHOOD EDUCATION AND DEVELOPMENT (ECED)

3 EARLY CHILDHOOD EDUCATION AND DEVELOPMENT

3.1 Section Summary

Children's experiences during their early years profoundly affect all aspects of their development. The care that parents, families, caregivers, and communities provide makes the biggest impact, but they need support from local, national, and international agencies. Investing early in a child's development is one of the smartest investments that a country can make. Scientific, economic, and social studies increasingly highlight the importance of Early Childhood Education and Development (ECED)[1] because of an increase in later productivity in life, improved health, social citizenry, and other benefits. ECED is also important because it allows parents to participate in the workforce and increase family earnings and national productivity levels. Every $1 spent on ECED generates a return from between US$6 and US$17[2].

ECED refers to a comprehensive approach to policies and programmes for children from birth to eight years of age, along with their parents and caregivers, which aim to protect each child's right to develop his or her full learning, emotional, social, and physical potential[3]. This section of the Human Resource Development (HRD) Strategy refers to the age range zero to six years[4]. In Jordan, these early educational years fall into three categories: pre/post-natal care and nursery for ages zero to four, Kindergarten 1 (KG1) for ages four to five, and Kindergarten 2 (KG2) for ages five to six. Jordan has taken positive steps in the last 15 years towards ensuring adequate ECED for the Kingdom's children. These include:

- Ratifying global conventions for children's rights, enacting by-laws to provide safer environments for children, and adopting legislation intended to enable parental participation in the workforce
- Increasing the KG2 enrolment rate from 47% in 2000[5] to 60%[6] in 2015
- Almost universal levels of vaccinations, and free medical insurance for pregnant women and children under the age of six
- Programmes to raise awareness and give families the resources they need to care for their young children appropriately at home, such as the United Nations Children's Emergency Fund's (UNICEF) Better Parenting Programme, have successfully brought together a wide range of stakeholders around a common set of goals for ECED.

Despite this progress, Jordan still faces the following challenges:

Access: Not enough children have access to ECED services. Despite expansion of KG2, around 2,800 KG2 classrooms are still needed to reach all five to six year old children. Enrolment rates in KG1 and nursery services, provided almost entirely via the private sector, are only 18% and 3%

[1] Rebello Britto, 2011.

[2] World Bank, 2015.

[3] UNICEF, n.d.

[4] The 'Basic and Secondary' section of the Strategy covers 7-8 year olds in the first couple of grades of primary.

[5] USAID, 2011.

[6] *Jordan 2025.*

respectively. Rates of childhood stunting, around 8%[7], suggest a need to both expand the provision and improve the quality of the Kingdom's family and child centres and reproductive services.

Quality: **The quality of teachers and caregivers and the environments in which they care for children require improvements due in part to insufficient funding for ECED.** Undergraduate programmes to train ECED teachers and caregivers do no attract high quality candidates. The ECED educational, health, and social care workforce does not receive the pre-service or in-service training that would best equip them to meet the needs of the children they work with. There is no standard KG1 curriculum; KG2 and nursery curricula are outdated. The physical environment and learning materials in many KGs and nurseries (e.g. books, blocks, and musical instruments) are not up to par.

Accountability: There is not enough coordination amongst government agencies and stakeholders. Public responsibility for nursery and KG provision in Jordan is fragmented within and across the relevant ministries and other stakeholders. Legislation and by-laws which have been adopted need to be activated and enforced. Additionally, effective monitoring and evaluation of ECED provision in Jordan is hindered by inadequate data collection and the lack of a holistic monitoring and evaluation framework.

Innovation: New approaches to leveraging technology, media, and innovative financing approaches are not fully mobilised to improve ECED services.

Mindset: **ECED knowledge, attitudes and practices of parents still need to change.** Parents need more awareness about how to create supportive informal learning environments at the home, and the connection between early childhood health and nutrition and early childhood learning. High rates of neglected and violently disciplined children need to be reduced.

Vision of the Committee

In response to these challenges, the Committee has designed a range of projects with the goal that, **by 2025, Jordan must seek to ensure that all children have access to quality early childhood learning and development experiences that promote primary school readiness, ensure healthy lives, and promote their future wellbeing**

To achieve this goal, five strategic objectives were set: [8]

(1) **Ensure that ECED infrastructure and provision develops to provide a basic level of quality access for all children in Jordan**: By increasing public funding for ECED; encouraging the private sector to invest; building public-private and community-based organisation (CBO) partnerships; and, reviewing and enforcing Article 72 of the Labour Law (which relates to employer's responsibilities to their employees for nursery provision).

(2) Improve ECED quality:
   a. **Revise, update, and develop the KG and nursery curriculum and assessment framework**
   b. **Improve the quality and size of the ECED workforce (health, education, and social protection)**

(3) **Strengthen accountability and coordination at all levels in the ECED system**: By reforming and consolidating laws related to ECED provision; establishing a single body to coordinate all ECED activities and decision making; establishing an independent inspectorate for public and private nurseries and KGs; introducing an accreditation/qualification system for ECED teachers and caregivers; and creating data-led decision processes to facilitate continuous system wide improvement.

(4) **Use innovation to leverage change in ECED**: Through creating online courses as well as TV and radio programmes and examining the feasibility of impact investing financing approaches.

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[7] Population and Family Health Survey, Department of Statistics, 2012.

[8] Detailed recommendations and projects are listed at the end of the ECED section.

(5) **Mobilise families to support learning, health, nutrition and social protection at home and school**: Through expanding parenting programmes and conducting continuous awareness campaigns and outreach activities.

Success in achieving these aims will be evaluated through the use of the Key Performance Indicators (KPIs). The following KPIs are regarded as high-level results KPIs, which can be widely communicated and which give an overall sense of reform progress:

- Enrolment rates in KG2, KG1 and nursery
- Percentage of KG2, KG1 and nursery teacher and caregiver completion of pre-service training, and percentage of in-service training completion in the last two years
- Percentage of KG2, KG1 and nurseries ranked as 'good' or 'outstanding' (according to the proposed inspectorate)
- Scores on the Early Development Instrument (EDI) assessment and the Early Grade Maths Assessment and Early Grade Reading Assessment (EGMA and EGRA)
- Percentage of parents and other primary caregivers who demonstrate relevant knowledge, attitudes and practices towards early childhood learning, health, nutrition, and social protection.

3.2 Overview of ECED

For the purpose of this HRD Strategy, the term Early Childhood Education and Development covers all care provision and formal education for children from birth up to the age of six.[9] This includes care within the family and by other caregivers, nursery provision and kindergartens (KGs) in both the public and private sectors.

ECED includes programmes that support health, nutrition, protection, and learning which are important for children's holistic development. In Jordan, the family and home environment is the largest 'provider' for early childhood developmental needs. Formal programmes and services are delivered through private, government and CBOs. The private sector has historically been the largest formal pre-school education provider.

Formal ECED provision in Jordan is spread across four stages: pre/post-natal services and nurseries (zero-four years old), KG1 (four-five years old), KG2 (five-six years old) and the start of primary education (six-eight years old). This Section of the HRD Strategy will focus on the first three stages of formal ECED provision, with the final stage of entry into primary education covered in the Basic and Secondary Education Section of the HRD Strategy (Section 4).

Formal ECED services in Jordan are provided through four sources: government institutions (i.e. Ministry of Education (MoE), Ministry of Social Development (MoSD), and Ministry of Health (MoH)), CBOs, private institutions, and (usually private) work-based institutions. Informal services such as home-based nurseries are a fifth type of provision, though there is no data on these. MoE and MoSD oversee formal educational provision and the MoH, the Ministry of Labour (MoL), the Family Protection Unit at the Public Security Department and other governmental entities (e.g. the Higher Council for Persons with Disabilities) oversee other ECED-related services.

[9] While ECED usually covers all care provision and formal education for children from birth to the age of 8, within this HRD Strategy the focus of ECED will be up to the KG2 age (5-6), as there is a separate section addressing the needs of children of between the ages of 6 - 18.

3.3 Global Best Practice

ECED is gaining more importance and attention globally as it is considered a crucial phase in a child's physical, cognitive, social, and emotional development. Children who receive quality care and education early on are more likely to succeed in the following stages of education and life. Moreover, the availability of quality childcare and education encourages more women to enter the workforce and contributes to the growth of the economy.

UNESCO has defined the key themes that help support comprehensive ECED provision: access and equity, quality, parental and community engagement, investment and financing, and coordination and integration.

It is important to ensure equitable access to quality early childhood learning experiences, especially for the less privileged communities and rural areas. However, access to ECED does not have to be thought of in terms of formal education provision only; other solutions have been adopted, for example, in New Zealand, where care and education of a small group of children is provided in a caregiver's home[10]. This has helped reach out to a larger and diverse population in the country.

Quality must be ensured in three key areas: pedagogy and curriculum, workforce training and service setting as well as physical infrastructure. Pedagogy and curriculum should follow a child-centred learning approach. Workforce training must be provided to all personnel involved in ECED including pre-school teachers, caregivers, other informal caregivers and professionals, to be able to implement the content, services and pedagogy of ECED properly in a collective manner.

Proper physical infrastructure, health, nutrition, and social protection mechanisms for children should be ensured through systematic inspection and follow-up to allow for meaningful learning to take place. Studies have shown that 162 million children suffer from stunted growth in the developing world due to poverty and nutritional deficiencies which affect children's physical and cognitive abilities. Integrating health and education initiatives in ECED resulted in a 25% increase in future earnings based on a 20-year study of children in Jamaica. Evidence from both developed and developing countries further suggests that every dollar invested in child health can result in economic returns of between US$ 6 and US$ 17[11].

Families and communities are also key to child development. Top-performing systems emphasise parental and community involvement through play and learning resources.

Global trends of allocating smaller proportions of public funds to ECED compared to other levels of education have required providers to seek alternative sources of funding. These alternative sources may include blended finance instruments, e.g. social impact bonds (a more detailed discussion of this topic can be found in Section 7 of the Strategy) and partnerships with non-public actors. Two brief examples are provided here which give an overview of how these approaches work in practice.

ECED – Social Impact Bonds (SIBs) in Chicago

A SIB programme was set up in Chicago, USA in 2014 to establish the Child-Parent Centre (CPC) for Pay for Success Initiative. The CPC programme aimed to work directly with parents and children through half-day pre-Kindergarten classes to improve educational outcomes, targeting 2,600 low-income four-year-old children in eight sites across Chicago. Under the SIB, Goldman Sachs' Social Impact Fund provided an initial upfront capital commitment of US$16.9 million, Chicago Public Schools (CPS) was the service provider, and the City of Chicago Office of the Mayor (COM) and CPS served as the outcome funder. CPS and COM agreed to reimburse Goldman Sachs for the initial investment, plus additional payments of up to 6% of the investment, if the agreed set of outcomes were met and validated by the independent validator. The outcomes were measured using three metrics:

[10] UNESCO, 2002.

[11] World Bank, 2015.

- Decrease in the need for special education (remedial education) services in Kindergarten through 12th Grade
- Increase in Kindergarten readiness as measured using a standard assessment tool
- Increase in 3rd grade reading scores.

Partnerships with Non-Public Actors in Singapore

ECED services in Singapore are provided by individuals, communities, NGOs, or enterprises, while the government's role is to finance and monitor the providers without being involved in the delivery. This approach is supported with a strong quality assurance mechanism that is based on performance and clear qualification and training standards for staff. The approach helped relieve the government from the biggest operational cost which is teachers' salaries[12].

It is common for the responsibility for ECED provision to fall under multiple ministries: education, health and social development. This brings challenges in effectively coordinating provision and comprehensive regulation, funding, workforce planning, and agreeing on a unified vision for ECED. Some countries, such as Brazil, Jamaica, New Zealand, Slovenia, and Sweden, have adopted an integrated approach under one ministry. Other countries divide the ECED responsibilities based on age and services and coordinate together on policy and administration through coordination mechanisms. These mechanisms are generally more likely to be effective when they focus on a certain programme or target group.

[12] UNESCO, 2007.

3.4 Desired Outcomes for ECED in the Strategy

The Committee considers that ECED's contribution should be directed to address the following outcomes at the heart of a concerted effort to strengthen Jordan's education system and HRD outlook.

Figure 3.1 Desired Outcomes for ECED in the Strategy

EDUCATION FUTURE

FOR THE KINGDOM:

- High scores on the Early Development Instrument (EDI) assessment
- High scores on the Early Grade Maths Assessment and Early Grade Reading Assessment (EGRA and EGMA)
- % of TIMSS/PISA scores match those in selected benchmark countries (neighbouring, regional, global) or Jordan raises scores to specific target levels
- All early years provision meets international expectations for quality
- Gender parity and more female participation in the workforce
- ECED efforts are well-coordinated between all relevant stakeholders to achieve the largest impact

FOR CHILDREN:

- All children have access to quality early childhood learning experiences (nurseries, KG1, KG2, informal learning) and services (e.g. health, nutrition, psychosocial support)
- All children are taught by qualified teachers, who are mentored by trained supervisors and principals, with a modern curriculum that combines literacy, numeracy and opportunities for imaginative play to develop social and emotional skills in a safe and healthy environment
- All children are fully prepared for the first formal stage in their academic and social lives with the skills, knowledge and expectation that they will succeed
- All children experience cognitively, stimulating, emotionally, supportive home environments with adequate resources.
- All children's rights are protected and upheld through the implementation of policies and programmes to support children and families.

FOR EMPLOYERS:

- Lower absenteeism from female employees because they have the childcare they need.
- Enhanced educational attainment and productivity of workers as a result of them having a strong ECED grounding in life.

FOR TEACHERS, CAREGIVERS AND HEALTH WORKERS:

- ECED teaching is a well-recognised and respected profession
- ECED teachers are well rewarded and provided with relevant incentives
- ECED teachers receive quality pre- and in-service training as well as adequate supervision and mentorship
- ECED teachers are engaged in sharing best practice and ideas
- ECED teachers are aware of learning difficulties and physical disabilities and can facilitate in their early identification
- Health workers in family and child centres receive adequate training and support

FOR THE COMMUNITY:

- Families and community understand the importance of ECED
- All parents have access to pre and post-natal services and parenting programs
- Communities are engaged with early years providers to improve ECED provision
- Working parents receive ECED support from their employers

3.5 The Current State of ECED Provision in Jordan

An ECED strategy was created in 2000, commissioned by Her Majesty Queen Rania Al-Abdullah. The strategy was based on five stages: (1) pre-natal phase; (2) post-natal (up to one year); (3) one-four years old; (4) four-six years old; and (5) children in the first three lower primary grades. The strategy addressed 14 strategic issues ranging from planning and management, legislation, and health care to education and the role of media. From this strategy, two Plans of Action (PoA) to implement the national ECED strategy were developed by MoSD, UNICEF, and the National Council for Family Affairs (NCFA). Both PoA's were aligned with the broader Education Reform for the Knowledge Economy (ERfKE) I and II education reforms. An initial review by NCFA of the first PoA (2003-2007) concluded that approximately 70% of activities were implemented. Some of the main achievements under this PoA included, for example: the development of an interactive KG2 curriculum; the completion of the 1st phase of a School Readiness Survey; the creation of standards to license nurseries by NCFA and MoSD; and, the expansion of KG2 teacher training. The second PoA (2011-2015) included five main themes: (1) maternal and child health and nutrition; (2) care, education, and development; (3) family and community involvement; (4) child culture and the role of media; and (5) social protection. NCFA are currently working on evaluating it. Most of the priorities remain the same as the ECED sector is still relatively new which makes the upcoming HRD Strategy an opportunity for an establishment of a strong foundation for future progress.

The analysis conducted by the National Committee for HRD, through its subcommittees and expert research, has highlighted the following challenges in ECED provision in Jordan, which are presented here according to the five Governing Principles of the strategy framework.

3.5.1 Access

Availability and equity of access to KG2, KG1 and nurseries

The current enrolment rate in KG2, KG1 and nurseries is 60%, 18% and 3%[13] respectively. Public KG2 is most widely available, whilst KG1 is dominated by private provision. Nursery care is only available via private provision. According to Article 72 of the 2011 Labour Law, employers with more than 20 working married women with at least 10 children are required to provide crèche facilities. However, there are widespread reports of this not being successfully enforced and where provision occurs, it often does not meet national quality standards (See Section 3.5.3 on Accountability for additional discussion of this topic).

According to World Bank analysis, access to ECED in Jordan is significantly inequitable. The most advantaged children have a 44% chance of attending early childhood care and education compared to a 5% chance for the least advantaged children[14]. Parents' wealth and education are some of the factors that influence ECED enrolment rates the most[15], but there are further barriers for disadvantaged groups, especially children with disabilities, refugees, and disadvantaged orphans.

Availability of child and maternal health services

While Jordan boasts some very positive ECED experiences, such as almost universal levels of childhood vaccinations, free medical insurance for all children under the age of six and all pregnant women, as well the presence of about 450 mother and child centres nationwide, challenges remain. There is a need to expand the provision and improve the quality of the mother and child centres.

Children's health and nutrition is also still at risk in Jordan. Overall, only one-third of children aged six-23 months are fed appropriately based on recommended practices. Around 8% of children under the age of five years are stunted or chronically malnourished, with children from the South being the most disadvantaged in comparison with other geographic regions. Child and infant mortality remains high;

[13] QRF, 2016; *Jordan 2025*.

[14] Kogali, 2015.

[15] Ibid.

one in every 59 Jordanian children dies before reaching age one (17 per 1,000), and the neonatal mortality and perinatal mortality rates are 14 and 17 deaths per 1,000 respectively. Early detection services for children with disabilities are not sufficiently developed.

The health and nutrition issues noted above, along with others, can have detrimental impacts on early learning and development. In order to address these issues, first and foremost parents need more information about the relationship between these aspects and early learning and development, and what specific low or no-cost actions they can take (see Section 3.5.5 on mindset). Second, formal outreach services need to continue to expand, and the quality and efficiency of these services need to be improved, especially through enhanced training of health care workers.

3.5.2 Quality

Teacher, caregiver, and supervisor quality

There are significant concerns over the quality of ECED teaching due to low levels of educational achievement, experience, and motivation for ECED teachers and caregivers and inconsistent levels of pre-service and in-service training. Current pathways into ECED careers are inefficient and often obstructive. Pathways into teaching funnel applicants with low Tawjihi results, and often with no affinity to ECED, into the profession. While this practice continues, it will be very difficult for the sector to improve significantly.

Quality of educational background, experience and motivation

Caregivers

The Queen Rania Foundation (QRF)'s 2016 Survey found that about 25% of caregivers at work-based nurseries had less than one year of experience.

Out of the 437 caregivers interviewed across all types of nurseries, only 111 had a post-secondary degree in education, while only 36 were in early childhood education specifically[16]. Tawjihi grade was the major driver for specialising in education for 50.9%, 28.9%, 60%, and 27.3% of caregivers (in private, MoE school-based[17], work-based, and CBO nurseries, respectively). The admission grade to education majors is one of the lowest across majors. This indicates that these caregivers were among the low-performers in secondary school and may have chosen to pursue education at university due to lack of sufficiently high Tawjihi scores to pursue other fields[18]. Figure 3.2 below shows the level of caregiver's education levels across the four types of formal nurseries in Jordan.

[16] QRF, 2016.

[17] These are nurseries that are established in public schools but serve the children of teachers only. Teachers, w ho are the mothers, establish and run these nurseries – and pay fees each month.

[18] QRF, 2016.

Figure 3.2 Caregivers' level of education

	Private	MoE-Based	Work-Based	CBO
Below 10th Grade	1.8%	6.9%	0.0%	6.5%
10th Grade	8.8%	22.0%	17.6%	22.6%
Tawjihi	25.1%	40.4%	17.6%	22.6%
Diploma	39.8%	26.1%	41.2%	32.3%
Bachelor's Degree	20.5%	4.6%	17.6%	16.1%
Postgraduate	4.1%	0.0%	5.9%	0.0%

Caregivers working at nurseries in Jordan were also asked about the reasons for choosing this profession, and were allowed to choose among a list of possible reasons. Only 18.1%, 17.1%, 26.8%, and 17.6% (in private, MoE school-based, work-based, and CBO nurseries, respectively) said that 'interest in childcare' was one of the top reasons for choosing the profession. More prominent reasons were the need to work and lack of other job opportunities[19].

KG1 and KG2

The National Centre for Human Resource Development (NCHRD) conducted a study in 2012 to assess public KG2 teachers' and supervisors' training. The study showed that KG2 teachers in public schools tended to have substantial academic backgrounds; 2% had Master's degrees, 85% had Bachelor's degrees[20], and the rest had a two-year education diploma. Half of the teachers had less than five years of experience, around 45% had between five to 10 years of experience, and the rest had more than 10 years of experience. The qualifications and years of experience for KG2 and KG1 teachers in the private sector are unknown.

Quality of training

Educational systems at all levels, including ECED, need robust teacher training. Moreover, educators in the ECED sector require specialised training because they are serving children in the earliest years of their lives. Research shows that after establishing a strong foundation with proper pre-service training, ongoing education and training is critical to help professionals update their knowledge and skills in response to developments in the wider field of ECED practice and research[21].

Caregivers

Many caregivers working in all types of nurseries do not receive pre-service and in-service training. Nearly 90% of MoE school-based caregivers have never received pre-service training compared to around 60% in other types of nurseries.

[19] QRF, 2016.

[20] The percentage of teachers with a BEd. in ECE is not clear. How ever, one of the criteria for public KG teachers is to have an ECE BEd.

[21] OECD, 2015.

The situation for in-service training is equally inadequate. When asked whether they had received any professional development opportunities in the past two years, more than 70% of caregivers in work-based and CBO nurseries and around 90% in private and MoE school-based nurseries reported they had not[22].

Initial analysis of QRF's 2016 survey of ECED found that caregivers who received pre-service training exhibited more positive caregiving practices such as preparing lesson plans and teaching children everything from counting up to ten to naming colours[23]. Trained teachers also exhibited more positive attitudes about pursuing further formal or informal training[24]. There were also significantly higher rates of positive attitudes and caregiving practices for teachers who received in-service training, although these differences were not as dramatic as for pre-service training.

KG1 and KG2

According to NCHRD, 33% of a sample of public KG2 teachers underwent all five in-service training programmes offered by ERfKE. Participation rates by programme are outlined in the table below[25].

Figure 3.3 ERfKE teacher training programmes and public KG2 teacher participation rates by 2012[26]

Training Name	Description	Percentage of Public KG2 Teacher Participation (of teachers sampled)
National Curriculum	54-hour training on the interactive national KG curriculum	88%
Working with Young Children, WYC (Wisconsin)	160 hour training programme adapted from University of Wisconsin by Iman Academy	77%
Kidsmart Programme	40 hour training programme that bridges the technology skill gap between children across Jordan	77%
Hikayat Simsim	Educational multi-media programme that increases children's knowledge and enhance their skills through play	53%
Parental Awareness Programme	Training to help teachers raise parent awareness of ECED	58%
Other	-	34%

In contrast, in the last two years there have been reports that KG teachers appointed by the MoE in 2014 and 2015 did not receive any training due to budgetary constraints[27].

[22] QRF, 2016.

[23] These differences were statistically significant (p<.05).

[24] These differences were statistically significant (p<.05).

[25] NCHRD, 2012.

[26] ibid.

While, there are no official data available for private KG2 teacher in-service training, QRF's 2016 Survey revealed that 52.9% of directors in private KG1 classrooms think that their teachers need additional training[28]. In the private sector, training depends on the disposition of local owners and managers.

In both the public and private sector, training for all ECED teachers and caregivers is uneven in coverage and quality and is unlikely to improve unless higher expectations are set and enforced.

Curriculum quality

Currently, there are few curriculum specifications for ECED. A national interactive curriculum based on Developmentally Appropriate Practice (DAP) was established for KG2 under ERfKE but does not have resources, tools or materials to support it. The KG2 curriculum has not been revised since 2007, and may no longer align with the most up-to-date best practice. There is no national curriculum for KG1. Furthermore, in private provision, it is unknown to what extent the national curriculum is used at KG2 level.

School managers choose which curriculum they use in KG1. Caregivers' guides were established for nurseries by the NCFA in 2010, but 80% of MoE school-based, work-based, and CBO nursery administrators report that they are not implementing established curricula in their nurseries. 68% of private nursery administrators reported not implementing an established curriculum. Policymakers must consider ways to make ECED curricula more holistic, incorporating issues like health, etc.

Learning environment quality

The quality and quantity of learning materials for young children vary among different types of nurseries in Jordan. For example:

- More than 75% of all nurseries have building blocks
- Only 38% of MoE school-based nurseries have books compared to 78% of private nurseries
- 12%, 23%, 42%, and 45% of work-based, MoE school-based, private, and CBO nurseries, respectively, have musical instruments, respectively[29]

These tools are basic components needed to provide quality and effective learning environments for young children.

Infrastructure quality

Poor infrastructure is a concern for all stages of ECED provision in both the public and private sectors. Infrastructure problems are the most common reason for school supervisors issuing warnings to institutions[30]. Infrastructure quality varies substantially between the best-resourced, expensive private sector institutions and those with significantly less resources. There is high variability among both MoE school-based providers and independent private providers.

3.5.3 Accountability

Governance

Responsibility for public provision of ECED in Jordan is fragmented across several entities including the MoSD, MoE, MoH, MoL, and the Family Protection Unit at the Public Security Department. This has resulted in the duplication of roles and in gaps in ECED provision and oversight.

An example of duplication can be seen in the provision of ECED to children with disabilities. The MoSD has developed criteria for licencing special education centres. The Higher Council for Persons

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[27] MoE, 2015.

[28] QRF, 2016.

[29] QRF, 2016.

[30] Ibid.

with Disabilities has also developed standards for the accreditation of special education centres, and the MoE has its own Special Education Directorate for children with special needs[31].

Mobilisation of multiple entities in providing comprehensive ECED services has been a successful model in countries as diverse as Sweden, Turkey, and Kenya, but it is important to note that these models have relied on formal coordination as well as systematic meetings and follow-up between entities. The lack of coordination and follow-up between those seeking to direct ECED practices has contributed to the fragmentation of the sector.

Legislative adherence

Jordan has made significant progress in ratifying global conventions for children's rights, enacting by-laws to provide safer environments for Jordanian children to learn, and adopting legislation intended to enable parental participation in the workforce, but issues remain. Policies and laws to protect the well-being of children are spread across multiple pieces of legislation. By-laws related to childhood include but are not limited to: the MoSD Law No. 14 of 1956; the Jordanian Juveniles Law No. 24 of 1968 and its amendment in 1983; Childcare By-Law No. 34 of 1972; and the Domestic Violence Law No. 6 of 2008. Article 72 of the 2011 Labour Law is intended to provide an incentive for mothers to work by requiring the provision of care facilities. The level of enforcement of each of these laws varies, which makes it difficult to ensure consistent levels of quality for ECED programmes and services and give parents the support that they need to work. There are also gaps in these laws: the National ECED Strategy, developed in the year 2000, identified additional by-laws which should be reviewed and amended, but progress is unclear.

Beyond concerns about enforcement, some laws may not provide the right incentives to achieve the intended outcomes. For example, Article 72 of the Labour Law may actually discourage employers from hiring women because employers do not want to bear the cost of the requirement to provide childcare facilities and trained caregivers when they employ married women with a total of at least 10 children under the age of four (though Article 72 does not apply to the public sector). The government responded by developing a programme that could motivate companies to abide by it. The King Abdullah II Fund for Development (KAFD), the Employment-Technical and Vocational Education and Training Fund, and NCFA developed a programme in which they refurbish and renovate spaces for day-care in private sector firms, pay half of the caregiver's salary, and pay her social security for at least the first year.

A comprehensive review of ECED laws to identify gaps and amend existing legislation is needed to ensure a holistic policy framework with the appropriate incentives for ECED in Jordan.

Quality assurance

Although positive progress has been made in developing quality standards for the sector in recent years, there is still not enough coordination or enforcement. The MoSD licenses nurseries and has different standards for each of four types of nurseries (CBO, private, work-based, and MoE school-based). Informal home nurseries are unlicensed and, by definition, operate without regard to formal standards. Quality standards for KG2 were developed as part of ERfKE, but these standards only apply to public KG classrooms in Jordan. For private KGs, there are clear licencing standards but these stress infrastructure quality requirements rather than pedagogical and service delivery standards.

Supervisors

Analysis of the Early Grade Reading Assessment (EGRA) and Early Grade Maths Assessment (EGMA) results for second and third grade students show a clear correlation between school performance and supervisor visits in Jordan[32]. Supervisors are an important tool not only in

[31] Al-Azzeh, M., 2012.

[32] USAID, 2012.

maintaining and monitoring quality standards but also in offering mentoring and professional development advice to staff. Despite their effectiveness, supervisors are too few in number.

At the nursery level, supervisors focus on inspection rather than providing any guidance or advice on pedagogical approaches or curriculum. Furthermore, the MoSD has limited resources to provide supervisors and, as a result, is unable to implement a systematic inspection and follow-up process. An estimated 12% of work-based nurseries have never been visited[33].

There are only approximately 20 KG1 and KG2 supervisors for the whole country, who are responsible for monitoring both public and private KG teachers. With a total of 5,104 public and private teachers, it is thus impossible for KG teachers to get the support that they need[34].

Data-led decision processes

Effective monitoring and evaluation of ECED provision in Jordan is hindered by inadequate data collection and the lack of a holistic monitoring and evaluation framework used across all related stakeholders (MoSD, MoE, MoH, MoL and the Family Protection Unit). Currently, data is being collected by the MoE, MoSD, Department of Statistics (DoS), MoH and a number of donor agencies but there is little coordination across these groups. Where data are collected, there is limited capability to analyse the data, monitor, and report performance across the ECED sector as a whole and at the level of individual stakeholders.

There are specific issues in each area of data collection:

- **MoE**: The MoE has an Education Management Information System (EMIS) which has been redesigned in partnership with UNESCO. In the past, there have been discrepancies between official MoE reports and data in the EMIS database; however, training for data collection and submission under the new system has commenced as of spring 2016. At this stage, data for a full evaluation of ECED is not available.
- **MoSD**: The MoSD has four major challenges in obtaining the right data: its system is underdeveloped; high turnover of staff responsible for managing the EMIS in directorates means many people managing the system are poorly trained; the information provided by the directorates is not always comprehensive or complete; and inconsistent internet access for directorates; especially in remote areas means the system is not always fully up to date.
- **Donor Agencies**: ERfKE I & II increased the number of studies conducted by NCHRD and the MoE on KG2 performance. In addition to these tools, the Early Development Instrument (EDI) conducted every three years by UNICEF, NCHRD and MoE is an important index which assesses the extent to which students are ready for school; however, it could be expanded to address questions about years of nursery enrolment. UNICEF and NCFA conduct other ECED studies that could be valuable for policy making.
- **Department of Statistics**: The DoS Population and Family Health Survey is one of the most comprehensive data sources assessing different aspects of children's development. It includes early childhood education, health and nutrition, maternal health, and domestic violence, though it does not cover children under the age of three except when it comes to certain health indicators such as infant mortality.

[33] QRF, 2016.

[34] NCHRD, 2015.

3.5.4 Innovation

Use of technology and media

The potential of technology and media is not currently being fully mobilised to enhance ECED in every area. Better teaching resources could be made available to teachers, caregivers and parents through online platforms including mobile devices. Jordan's Massive Open Online Course (MOOC) platform, Edraak, has recently begun to provide courses in child mental health and parenting, but there is scope to harness technology and media more effectively in this area, not least in training.

Innovative funding schemes

Current options for financing ECED in Jordan include government, private and donor funding. Government funding is not sufficient to fulfil current pre-schooling needs, and the dominance of private sector provision largely excludes children from the lowest socio-economic levels. Many countries are increasingly looking to innovative funding schemes to develop high quality ECED systems. Non-traditional financing methods which could be considered include public-private partnerships (PPPs), blended financing, social impact investment, subsidy mechanisms and development impact bonds. In parallel to the developing of funding schemes, an objective evaluation of financial spending of ECED from all relevant ministries (a public expenditure review) should be conducted to determine ways resources could be more strategically allocated to make better use of existing funds.

3.5.5 Mindset

Awareness and engagement

As primary caregivers, parents play a critical role in ECED. Parental teaching and parent-child relationships are important for a child's early cognitive, physical, social and emotional development, particularly in Jordan, where the parental role in ECED takes on increased importance due to very low formal enrolment at both nursery and KG levels. However, the importance of this role is not sufficiently recognised. A recent survey found that 55% of mothers 'totally' or 'somewhat' believe that parental care at home has limited impact on a child's learning outcomes[35]. This demonstrates that information about simple, cheap, and effective approaches that parents might easily adopt and implement, such as reading with their children each day, is not widespread. The same survey also identified that for households with children under five:

- 65% of households do not have age-appropriate books for their children
- 41% of mothers do not read to their children
- 40% of mothers do not teach their children any letters, numbers, or words[36].

Expectations of parents and families are not explicit and there has been little concerted effort to engage parents around these issues, apart from the Better Parenting Programme designed by UNICEF. The difference that this makes in children's performance in their early years translates into lifelong disadvantages for children from less aware families in terms of achievement, employment, and individual prosperity.

Physical discipline

Discipline is an important part of child-rearing practices. To maintain safety, behaviour, and self-regulation, children need to be taught right from wrong. However, in Jordan, the most common method of child discipline at home is physical punishment. Even though 62% of mothers of children under five totally disagree with the statement that physical discipline is necessary to raise a child properly, 69% reported that they or someone else in the household has physically disciplined their children:

[35] QRF, 2016.

[36] Ibid.

- 65% hit children on the arm or the leg
- 45% hit children on the bottom
- 26% hit children on the face
- 10% hit children with a hard object[37].

In order to combat child abuse at home and support families, many entities have established hotline numbers. According to a recent study by NCFA, there are 15 different helplines that were established with the aim to empower the child and family and promote and protect the well-being and safety of children in Jordan. Of these hotlines, four are governmental. Only two of these are toll-free on all networks compared to around five of which are toll-free only on certain networks. The study shows that most of these lines are available in Amman and a few governorates and that only half of these lines are available throughout the day. The sustainability of these hotlines is at-risk since half of them rely entirely on international donors[38].

Nutrition and health

Knowledge, attitudes, and practices concerning early childhood nutrition and health are not in line with international evidence regarding the synergies between early nutrition and health and the development of early learning capabilities. There is a need to increase demand for child and maternal health services, including those offered in mother and child centres. Concerns about possible birth defects due to kinship marriage remains; kinship marriages are still prevalent in Jordan, especially in Badia and camp areas. Thirty-five percent of women reported that they are related to their husbands. Additionally, cultural barriers that discourage females from visiting the mother and child centres or participating in counselling services on reproductive health services remain[39].

3.6 Strategic Objectives

The Committee has identified five strategic objectives to address the key challenges faced and achieve the outcomes sought:

ECED1	Access – Ensure that Jordan's ECED infrastructure and provision develops to provide a basic level of access for all children in Jordan
ECED2a	Quality – Revise, update, and develop the curriculum and assessment framework
ECED2b	Quality – Improve the quality and size of the ECED workforce
ECED3	Accountability – Strengthen accountability and coordination at all levels in the ECED system
ECED4	Innovation – Use innovation to leverage change in ECED
ECED5	Mindset – Mobilise families to support learning, health, nutrition and social protection at home and school

[37] Ibid.

[38] NCFA, 2016.

[39] Official at MoH, April 2016.

3.7 Projects required to achieve outcomes sought

Set out below are the projects that the Committee believes are required to achieve the outcomes sought.

Strategic Objectives	Projects
ECED1: Access – Ensure that Jordan's ECED infrastructure and provision develops to provide a basic level of access for all children in Jordan	ECED1.1: Increase KG2 capacity and enrolment ECED1.2: Increase KG1 and nursery enrolment through encouraging the expansion of private and non-governmental provision that meets specified standards ECED1.3: Improve the health and nutrition of children and mothers
ECED2a: Quality – Revise, update, and develop the curriculum and assessment framework	ECED2a.1: Develop a new curriculum for ECED that meets the needs of young Jordanians
ECED2b: Quality – Improve the quality and size of the ECED workforce	ECED2b.1: Redesign admissions requirements for teachers and caregivers ECED2b.2: Improve and expand training opportunities for the ECED workforce
ECED3: Accountability –Strengthen accountability and coordination at all levels in the ECED system	ECED3.1: Reform and consolidate legislation related to ECED provision ECED3.2: Establish a single body to coordinate all ECED activities and decision making ECED3.3: Establish an independent inspectorate for public and private nurseries and KGs ECED3.4: Introduce an accreditation/qualification system for ECED teachers and caregivers ECED3.5: Create data-led decision processes to facilitate continuous system wide improvement
ECED4: Innovation – Use innovation to leverage change in ECED	ECED4.1: Better use technology and the media to support improvements in ECED provision ECED4.2: Examine feasibility of and pilot innovative financing approaches to ECED
ECED5: Mindset – Mobilise families to support learning, health, nutrition and social protection at home and school	ECED5.1: Improve training outreach to parents and other primary caregivers ECED5.2: Mobilise families to better support learning and early childhood development at home and increase their engagement in their child's formal learning

ECED1: Access – Ensure that Jordan's ECED infrastructure and provision develops to provide a basic level of access for all children in Jordan

Project Title	ECED1.1: Increase KG2 capacity and enrolment
Objectives	Ensure all children of KG2 age can ultimately enrol and attend KG2 through expanding public and private provision Secure additional funding to expand public provision
Activities	• Make enrolment in KG2 compulsory (once capacity has been increased to meet demand) • Reinforce this by connecting the National Aid Fund with the condition that age appropriate family members must be enrolled in KG2 (only once KG2 capacity has been increased so that KG2 is accessible to all) • Increase the number of pre-school classrooms in newly built public schools and prioritising areas of high need for additional provision • Improve the environment and incentives for private and public-private partnerships to expand KG2
Responsibilities	• MoE to lead and coordinate
Current Status	As of 2016, there were 1,206 public KG2 classrooms and, according to the MoE, around 2,800 more are required to reach universal KG2 enrolment, and the MoE has developed a plan to achieve this.
KPIs	• KG2 enrolment rate
Risks and Mitigations	• Risk: It is highly likely that such provision will grow first in more prosperous areas Mitigation: To address the needs of poorer areas, the Government should seek a dialogue with those who may be willing to provide more affordable solutions and see how they can assist these activities • Risk: Poor quality provision Mitigation: Develop an inspectorate body (See ECED 3.3)
Phase of Implementation	Phase 1

Project Title	**ECED1.2: Increase KG1 and nursery enrolment through encouraging the expansion of private and non-governmental provision that meets specified standards**
Objectives	Expand access to KG1 and nursery though stimulating growth in private and CBO provision whilst public funding is focused on developing universal KG2 enrolment
Activities	• Review Article 72 of the 2011 Jordanian Labour Law, which requires companies with more than 20 married female employees with a total of at least 10 children under the age of four to provide an adequate space for a day-care with trained personnel. Suggested amendments to improve the implementation and impact of the Article include expanding the scope to cover both private and public employers, including private owners of malls that house many small businesses, and modifying the Article to cover all parents, whether female or male employees • Review opportunities to incentivise new private provision (with an emphasis on affordable private provision) in targeted areas through tax exemptions and other mechanisms • Conduct a review into the suitability of introducing new funding mechanisms like Social/Development Impact Bonds and PPPs to expand nursery and KG1 provision (see Global Best Practice section for details on mechanisms used internationally to expand provision through PPPs) • Expand MoE school-based nurseries across all female public schools • Explore the possibility of establishing nurseries in MoH mother and child centres in high-demand and disadvantaged areas, potentially based on a low-fee approach
Responsibilities	• Joint ECED Committee. MoL to coordinate and mobilise work-based providers. MoSD to coordinate other types of nurseries
Current Status	MoE has not started to offer public KG1 services as they are planning to universalise KG2 first. Article 72 of the Jordanian Labour Law requires companies with more than 20 married female employees with a total of at least 10 children under the age of four to provide an adequate space for a day-care with trained personnel. This has proved difficult to implement due to lack of monitoring and evaluation capability and loopholes in the legislation.
KPIs	• KG1 enrolment rate • Nursery enrolment rate
Risks and Mitigations	• Risk: Resistance from employers to provide nursery provision • Mitigation: Consult employers during the review of Article 72 and promote the benefits of establishing a nursery for employees to the employers (e.g. lower absenteeism, improved value proposition for recruitment and retention) • Risk: Lack of financing for mother and child centres Mitigation: MoH could establish ECED centres based on a low-fee approach. These centres could only provide short ECED programmes (two to three hours a day) to limit costs but at least expand

	opportunities • Risk: Lack of financial and management skills among CBO's and private providers to establish nurseries and KGs • Mitigation: Develop a training programme for CBOs and individual entrepreneurs interested in establishing a low-fee or non-profit nursery or KG; such training could also be via free online courses
Phase of Implementation	Phase 1

Project Title	**ECED1.3: Improve the health and nutrition of children and mothers**
Objectives	Ensure that all children and mothers have access to quality health services and are provided adequate nutrients to ensure their wellbeing
Activities	• Expand the provision of mother and child centres and improve the quality of the approximately 450 existing centres • Improve the nutrition of expecting mothers and their children through providing mothers with nutrition supplements through mother and child centres, especially in poverty pockets • Increase and broaden scope of health services to include aspects of child health such as cognitive and psychological development and expand coverage of these services to remote and rural areas • Expand health awareness among parents about the importance of breastfeeding and provide information on healthy habits and nutrition • Evaluate previous feeding programmes at public schools and develop a new programme based on feedback received, targeting households living in poverty pockets and underserved communities • Improve training of health care workers to improve quality and efficiency of services. Capitalise on mother and child centres available and align their services with HRD Strategy in regards to ECED • Incentivise more females to enter the health workforce (i.e. paediatrics, gynaecologists) • Reconsider and review policy recommendations to improve health services • Collaborate with MoSD and the Higher Council for Persons with Disabilities to support early detection and intervention of disability among children
Responsibilities	• MoH, MoSD, and Higher Council for Persons with Disabilities
Current Status	Based on the 2012 Population and Family Health Survey by DoS, children's health and nutrition is still at risk in Jordan: • Only one-third of children aged six to 23 months are fed appropriately based on recommended practices • Around 8% of children under the age of five years are stunted or chronically malnourished, with children from the South being the most disadvantaged in comparison with other geographic regions

	• One in every 59 Jordanian children dies before reaching age one (17 per 1,000) • Neonatal mortality and perinatal mortality rates are 14 and 17 deaths per 1,000 respectively • Early detection services for children with disabilities are not sufficiently developed.
KPIs	• Perinatal mortality rate • Infant mortality rate • Under five mortality rate • Percentage of stunted children • Percentage of obese children • Percentage of children born with low birth weight • Prevalence and incidence of diarrhoea, pneumonia, and other relevant indicators and chronic diseases • Percentage of immunised children • Percentage of children who are breastfed • Percentage of children who are fed appropriately based on recommended infant and young child feeding (IYCF) practices • Absenteeism in nursery and KG • Percentage of kinship marriages • Percentage of women receiving postnatal care in the next two days after delivery • Percentage of expecting women who are under or overweight based on the body mass index (BMI)
Risks and Mitigations	• Risk: Financial constraints Mitigation: Public expenditure review of entire ECED sector to ensure current public funds are being used most strategically (see project IMP 4.1). Seek assistance from development partners and NGOs.
Phase of Implementation	Ongoing

ECED2a: Quality – Revise, update, and develop the curriculum and assessment framework

Project Title	ECED2a.1: Develop a new curriculum and assessment framework for ECED that meets the needs of young Jordanians
Objectives	Develop a modern ECED curriculum that combines literacy, numeracy and opportunities for imaginative play to develop social, physical and emotional skills and give teachers the necessary tools
Activities	• Review and develop KG1, KG2 and nursery curricula with a comprehensive approach to ECED that identifies age-appropriate standards for cognitive, social, linguistic, emotional, and physical development • Increase the scope and availability of teaching aids, materials, and resources to assist teachers and caregivers in planning and delivering education and leverage existing tools and materials such as the NCFA teachers' guide for nurseries
Responsibilities	• Proposed independent curriculum and assessment institute (see objective B&SE2a in Basic and Secondary Section)
Current Status	There is currently a curriculum for KG2 and nursery, but not for KG1. NCFA has developed a teacher/caregiver guide for nursery provision but there is no requirement for nurseries to follow this. The KG2 existing curriculum is outdated and does not meet the needs of young Jordanians.
KPIs	• New curricula designed, approved and implemented for KG2, KG1, and nursery level • Percentage of public and private KGs and nurseries using new curriculum
Risks and Mitigations	• Risk: Delay in establishing the curriculum and assessment institute Mitigation: Develop and revise current curriculum by experts until the curriculum and assessment institute is established
Phase of Implementation	Phase 1

ECED2b: Quality – Improve the quality and size of the ECED workforce

Project Title	ECED2b.1: Redesign admissions requirements for teachers and caregivers
Objectives	Raise the standards of those entering the ECED teaching/caregiving profession, and promote recruitment from a broader range of Tawjihi graduates
Activities	• Raise entry requirements to ECED programmes at universities and vocational schools • Including practical component in university degrees starting from the first year • Offer incentives like scholarship schemes to high performing Grade 12 students to enrol in ECED programmes • Develop a campaign to promote ECED programmes to secondary schools students • Develop a selection process to recruit ECED teachers and caregivers for private nurseries and KGs to use if needed (i.e. profile of caregivers, competency assessment test, interview questions)
Responsibilities	• For ECED vocational programmes, TVET Skills Development Council working through a Skills Development Council for ECED and MoE • For University programmes, MoHESR
Current Status	Entry requirements currently attract low performing students to the teaching profession because the Tawjihi admission grade to education major is one of the lowest
KPIs	• Average Tawjihi scores of new entrants to the profession • Percentage of teachers and caregivers from university top performers • Percentage of qualified teachers and caregivers working in private KGs and nurseries
Risks and Mitigations	• Risk: Resistance among low achieving Tawjihi graduates who would be excluded under this change Mitigation: The creation of a cadre of new teaching assistants with lower entry requirements and built-in progression routes • Risk: Reduction in the stream of new teachers that results in a shortage in supply Mitigation: raise the admissions criteria in phases to ensure the stream remains constant • Risk: Qualified teachers and caregivers will ask for higher salaries which could affect the sustainability of ECED centres Mitigation: develop financial training for private ECED centres
Phase of Implementation	Phase 2

Project Title	**ECED2b.2: Improve and expand training opportunities for ECED workforce**
Objectives	Ensure that teachers are receiving the needed pre-service and in-service training to improve their teaching and classroom practices Ensure that workers in mother and child centres and social protection organisations are receiving training to provide quality care, support, and protection for mothers and children from different backgrounds and with different needs Ensure that principals, supervisors and directors in educational, health, and social protection organisations, in all sectors, are receiving financial, managerial, planning, and evaluation training
Activities	• Ensure that all KG2 teachers are receiving an adequate pre-service training that has a practical component and are provided in-service training at least once every two years. This should include all public teachers including substitute teachers • MoE and MoSD to develop a training programme with reasonable fees for teachers and principals in the private and CBO sectors. Subsidies could be given to low-fee private centres and CBO's located in poverty pockets or centres that serve children with physical and mental disabilities, refugees, and orphans • Pre-service training to be included in licencing standards for all types of nurseries and KGs • MoE to increase the number of KG supervisors to align with the ratio recommendations cited in the Early Grade Reading and Maths Assessments (EGRA and EGMA). This ratio should be based on the number of public and private KG teachers. All supervisors should receive an ECED training developed by the MoE • MoH to ensure that training opportunities are offered to the maternal and child health workforce in all mother and child centres at least once every two years • All ministries should ensure that training programmes are sustainable, potentially by training their own workforce to become trainers for other teachers, health workers, or principals • Family Protection Department to develop a training for all social protection workers who are responsible for taking calls from the 14 family and child hotlines, referring cases, and dealing directly with abused children and women • Create a free online course for the ECED workforce (linked to ECED project 4.1)
Responsibilities	• MoSD, MoE, Family Protection Unit • The ECED committee mentioned in Project ECED 3.2 to lead
Current Status	MoE provides training to public KG2 teachers depending on availability of finances. A few NGOs and donors organise training for other caregivers but provision is fragmented and might not have a large impact.
KPIs	• Percentage of ECED workforce from all sectors receiving pre-service and in-service training • Changing attitudes in practice

	• Satisfaction of mothers and children in services provided • Number of official complaints regarding quality and efficiency of service e.g. maternal and child health, early childhood education, and other relevant services (in case of the non-existent of such a complaint system, responsible (MoE and MoSD ministries should build one)
Risks and Mitigations	• Risk: Financial constraints Mitigation: Public sector to offer face-to-face training opportunities to the private and CBO sector on a reasonable fee basis and free open online courses developed for the ECED workforce
Phase of Implementation	Phase 3

ECED3: Accountability – Strengthen accountability and coordination at all levels in the ECED system

Project Title	ECED3.1: Reform and consolidate legislation related to ECED provision
Objectives	Harmonise existing ECED laws to align with international best practices and facilitate the development of ECED in Jordan Ensure all ECED laws have accountability and enforcement mechanisms
Activities	Programme of reviews and reform coordinated by the Joint ECED Committee (see ECED3.2). The fundamental legal requirements should include: • Rights of children to early educational experiences • Requirements on work-based provision by employers • Rights of children with disabilities and special educational needs • Licencing requirements including for inspection and renewal • Rights of children to quality health services and safe environments • Laws related to violent discipline • Review and revise nursery and KG standards. Unify minimum standards for all nurseries • Reviewing and approving the new drafted licencing systems by MoSD for children's clubs, for children aged four to nine, and early detection and intervention centres, for children under the age of six. Once they are approved, MoSD should develop a plan that lists targeted interventions to subsidise children from disadvantaged groups and incentivise the private sector to expand its investment
Responsibilities	Joint ECED Committee and NCFA
Current Status	Existing legacy legislation requires updating and coordination
KPIs	• Progress against programme of reforms agreed
Risks and Mitigations	• Risk: Stakeholders and key target audiences resist adhering to new legislation Mitigation: Consult stakeholders and target audiences in developing legislative amendments

Phase of Implementation	Phase 2

Project Title	**ECED3.2: Establish a single body to coordinate all ECED activities and decision making**
Objectives	To create a single coordinating entity for the ECED sector to ensure strategic alignment of all public legislation, policies and provision related to ECED Among other things, this would serve to: • Improve the efficiency and effectiveness of the use of resources • Identify and fix gaps in provision • Improve accountability by increasing transparency throughout ECED system.
Activities	Establishing a Joint ECED Committee (coordinated by the Ministry of Public Sector Development (MoPSD) with attendance from relevant ministries (MoE, MoSD, MoH, MoL, MoHESR), NCFA or Queen Rania Foundation if necessary) with key responsibilities and actions to include: • Coordinate the ECED sector in terms of provision, comprehensive legislation, funding and workforce planning and an agreed vision for ECED legislation among all stakeholders • Development of the holistic M&E framework and cascading it across all stakeholder levels to ensure they are aligned on KPIs and data required to measure performance • Improve and expand training opportunities for the ECED workforce (see ECED 2b.2) • Reform and consolidate legislation related to ECED provision (with NCFA) (see ECED 3.1) • Ensure the establishment of an inspectorate for nurseries and KGs (see ECED 3.3) • Create data-led decision processes (see ECED 3.5) • Ensure better use of technology and the media to support improvements in ECED provision (ECED 4.1) • Examine feasibility of, and pilot, innovative financing approaches to ECED (with other responsible parties – see ECED 4.2) • Improve training outreach to parents and other primary caregivers (with other responsible parties – see ECED 5.1)
Responsibilities	• Proposed HRD Reform Board to nominate the members of the Joint ECED Committee
Current Status	Governance is still fragmented across MoE, MoSD, MoH, and MoL.
KPIs	• Committee established, staffed and operational (see ECED 3.2) • M&E framework and process designed to track the performance of the committee
Risks and	• Risk: Potential resistance from ministries to reporting to an external entity

Mitigations	Mitigation: Proper representation of the ministries and government departments and possible facilitation by a non-government organisation
Phase of Implementation	Phase 1

Project Title	**ECED3.3: Establish an independent inspectorate for public and private nurseries and KGs**
Objectives	Ensure minimum quality standards are upheld in all providers in Jordan in addition to the creation of a classification system for all providers
Activities	This inspectorate's main responsibility is to inspect all KGs and nurseries in Jordan and classify them on a scale of 'unacceptable', 'satisfactory', 'good', and 'outstanding'. The scale is to be developed further once implementation starts. In order to increase the impact of this project: • The licencing system of KGs and nurseries should be linked to the scale (i.e. if a nursery received a rating of 'unacceptable' in two consecutive years, its licence will not be renewed by the MoE and the MoSD) • The classification of nurseries and KGs should be released to the public to help parents make informed decisions on where to enrol their children and increase competition between nurseries and KGs • Develop a frequent systemised inspection and follow up visits to nurseries and KGs • Inspection elements should include infrastructure, curriculum, teacher qualifications, management qualifications, health, parental engagement, and safety measures. While this inspectorate should be independent, it can be established under an existing independent umbrella such as NCFA. In this case, more human and financial resources should be allocated to NCFA to establish this inspectorate unit. Additionally, this unit could go beyond classification of nurseries and KGs and rank them.
Responsibilities	• Joint ECED Committee
Current Status	Quality standards for KG were developed as part of ERfKE; however, these standards are only for public KG classrooms in Jordan. For private KGs, there are clear licencing standards and procedures but no quality assurance system. Some NGOs, such as the Royal Health Awareness Society (RHAS) have developed a health accreditation system for healthy schools and might have plans to expand it to KG.
KPIs	• Percentage of success rate of spot-checks on standards at accredited centres to ensure accreditation process is reliable • Percentage of nurseries and KGs are rated 'good' or 'outstanding' in

	inspections
Risks and Mitigations	• Risk: Resistance and potential exit of poor quality providers Mitigation: Introduce additional capacity building measures
Phase of Implementation	Phase 2

Project Title	**ECED3.4: Introduce an accreditation/qualification system for ECED teachers and caregivers**
Objectives	Increase pre-service and in-service training requirements for teachers and caregivers as conditions for accreditation
Activities	• Establish an accreditation system where teachers and caregivers are required to have a valid license in order to practice • Work with universities and colleges to integrate practical training requirement into ECED programmes at these institutions • Increase the length and quality of training teachers and caregivers receive before being appointed • Provide training materials, aligned to the new standards and curriculum, for widespread use
Responsibilities	• MoE and MoHESR (for university programmes)
Current Status	There is no licencing/accreditation system for teachers or caregivers at any stage in ECED.
KPIs	• Percentage of ECED teachers and caregivers achieving accreditation standards • Percentage of teachers ranked 'good' or above in inspection reports
Risks and Mitigations	• Risk: Existing teachers and caregivers are antagonistic towards the introduction of an accreditation system as it threatens their jobs Mitigation: Roll-out the accreditation system in phases and provide in-service training for existing teachers and caregivers who wish to become qualified.
Phase of Implementation	Phase 2

Project Title	**ECED3.5: Create data-led decision processes to facilitate continuous system wide improvement**
Objectives	Develop the capability required to enable data-based decision making processes
Activities	• Create and implement a plan to improve data collection and availability • Review the possibility of using UNICEF's multi indicator cluster survey (Round Four) MICS4, the Systems Approach for Better Education Results (SABER) - and/or other types of domestic surveys to bridge the current knowledge gap based on children's progress in the main areas of development and compare with Early Development Instrument (EDI) • Evaluate and improve reliability of data systems at MoSD, MoH and Family Protection Unit and the expansion of the new EMIS system for primary education to include KG and nurseries • Develop or adopt a holistic ECED M&E framework and a baseline with a core set of ECED indicators that can be tracked on governmental, regional, and national levels. The M&E system for ECED should include sector-wide and institutional stakeholder level indicators for integrated services, multi-sectoral services and coordination (linked to ECED 3.2 above)
Responsibilities	• Data Collection Task Force to be established under the Joint ECED Committee
Current Status	Current data collection is uncoordinated, inconsistent and often inaccurate.
KPIs	• Proportion of teachers and MoE and MoSD staff trained on how to use the EMIS and the MoSD data system effectively • Data error rate for key statistics such as enrolment, number of teachers
Risks and Mitigations	• Risk: Teachers, MoE, and MoSD staff do not input data and use the system effectively Mitigation: Provide extensive training for teachers and MoE and MoSD staff on how to use the system and how it will benefit them and the broader ECED system
Phase of Implementation	Phase 2

ECED4: Innovation – Use innovation to leverage change in ECED

Project Title	ECED4.1: Better use of technology and the media to support improvements in ECED provision
Objectives	Use technology and the media as a means to stimulate quality improvements in ECED provision, formal and informal
Activities	For formal ECED provision: • Create free online courses, via Edraak, that can be used for both pre-service and continuous professional development of ECED teachers and caregivers (linked to ECED 2b.2, above) • Create free online courses that target policymakers and programme implementers with an aim to increase their planning and management skills in the ECED sectors • Create free online courses for owners and principals on management and running of private KG and nurseries For informal ECED via parents and families (linked to ECED 5, below): • Create an ECED online platform that brings together free material and information on key aspects of ECED, and serves as a single platform for all ECED stakeholders in Jordan that can house learning materials and information for parents and caregivers • Build on Edraak's online parenting course, expand its outreach, and design new targeted courses through Edraak or other platforms • Develop mobile applications for parents that could provide them with activities for their children at home on a daily basis. This can be also sent to a targeted group of beneficiaries on regular mobiles through messages • Create TV and radio programmes for parents For all stakeholders: • Create short videos targeting different stakeholders (government, parents, general public, donors) to show why ECED should be a national priority and leverage social media (i.e. YouTube channel)
Responsibilities	• Joint ECED Committee
Current Status	There are a few websites available from private companies containing online resources for parents. No open platform exists to bring together the collective knowledge of ECED stakeholders in an accessible way.
KPIs	• Amount of utilisation or number of people who have utilised each of the identified methods (e.g. number of viewers on videos, number of users on online platforms etc.) • Statistically significant changes in levels of knowledge, attitudes, and practices of families
Risks and Mitigations	No major risks identified.
Phase of Implementation	Phase 1

Project Title	**ECED4.2: Examine feasibility of, and pilot innovative financing approaches to ECED**
Objectives	Assess and pilot the use of various innovative financing mechanisms (including in-kind) for ECED that can both enable expansion and improve quality
Activities	• Conduct a review into the suitability of introducing new funding mechanisms like Social/Development Impact Bonds and PPPs to expand nursery and KG1 provision • Conduct pilot(s) of the most promising approach(es) related to PPPs and bond financing for ECED • Feasibility study into the options for market-based approaches to ECED, including social enterprises related to various aspects of ECED (education, nutrition etc.) and innovative mechanisms to leverage micro-donations from private individuals as well as corporate sponsorship • Assessment of the potential use of public funding to leverage private and other non-state financing for ECED • Feasibility study into the set-up of book donation approaches to get unused second hand age-appropriate books into the hands of children and families without such books
Responsibilities	• ECED committee, in collaboration with QRF and the MoE, MoSD, Ministry of Finance (MoF) and Ministry of Planning and International Cooperation (MoPIC)
Current Status	Some scoping work on innovative financing mechanisms for ECED from 2012.
KPIs	• Success rate of transforming innovative funding options from pilot to full implementation
Risks and Mitigations	No major risks identified.
Phase of Implementation	Phase 1

ECED5: Mindset – Mobilise families to support learning, health, nutrition and social protection at home and school

Project Title	ECED5.1: Improve training outreach to parents and other primary caregivers
Objectives	Empower families with means of providing ECED for their children The Committee also recognises that there is a lack of parenting training and recommends the expansion of existing successful programmes and the development of new ones that target all parents
Activities	• Conduct home visits training programme based on global best practice examples (for example, the Mother-Child Education Programme in Turkey which teaches mothers and community members to educate their children where formal education is lacking, or the UK SureStart programme) • Expand on the outreach of the Better Parenting Programme • Offer packages for parents through family and child centres or public hospitals in poverty pockets; these can include learning materials for children and tips for parents • Develop a parenting guide to be distributed to pregnant mothers • Better use technology and the media to support improvements in ECED provision (see ECED4, above)
Responsibilities	• Joint ECED Committee • MoE in coordination with UNICEF • Other partners may include Jordan River Foundation (JRF), the Islamic Centre Charitable Society, the Jordan Hashemite Fund for Human Development, MoSD, the Higher Council for Persons with Disabilities, Telecommunication companies, and TV and radio channels
Current Status	UNICEF is working to relaunch the Better Parenting Programme which was suspended in 2011.
KPIs	• Number of families reached through a home visit programme in rural or poor areas with low ECED enrolment • Statistically significant changes in levels of knowledge, attitudes and practices of families • One-question satisfaction surveys to beneficiaries through mobile devices
Risks and Mitigations	No major risks identified.
Phase of Implementation	Phase 1

Project Title	**ECED5.2: Mobilise families to better support learning and early childhood development at home and increase their engagement in their child's formal learning**
Objectives	Change the mindset and behaviour among families and communities by increasing public understanding about the importance and effects of ECED in child development, about the role they can play in the development of their child in their early years, and the long term benefits for Jordan (Should be linked with awareness raising aspects of project ECED1.)
Activities	• Create an 'ECED awareness initiative' to leverage a range of engagement methods including mass and social media and technology along with print media to inform parents of the importance of ECED and to advise how they can help their child develop and learn during this period • Provide information on the importance of ECED for all children, including those with disabilities • Provide information on the importance of reading to children, singing to and with children, and arts • Increase awareness among both mothers and fathers about the importance of fathers' involvement • Identify spokespersons and organisations to act as a champion for the programme • Expand the outreach of the 'mobile museum' of the Children's Museum of Jordan • Explore options of mobile libraries and other book-sharing approaches to increase availability of age-appropriate reading materials • Better use technology and the media to support improvements in ECED provision (see ECED4, above)
Responsibilities	• A well-resourced coalition of national ECED stakeholders to be set up, initially led by QRF, to design and develop an engagement platform, that draws in existing initiatives in Jordan, e.g. 'We Love Reading' and 'Hikayat Simsim' and unifies efforts under one campaign
Current Status	There are multiple initiatives to raise awareness on the importance of ECED such as 'We Love Reading' and 'Hikayat Simsim' but they have not been brought together and scaled up.

KPIs	• Percentage of families with young children reached
	• Improved perceptions and responses as measured through a survey, to include:
	  o Percentage of parents reading to their children
	  o Percentage of families with age-appropriate books
	  o Percentage of families who recognise the impact of the home environment on child's development.

Risks and Mitigations	• Risk: Exclusion of Syrian refugees and disadvantaged groups Mitigation: Ensure that tailored content is developed for Syrian refugees and minority groups

4

BASIC AND SECONDARY EDUCATION

4 BASIC AND SECONDARY EDUCATION

4.1 Section Summary

Basic and Secondary Education equips student with the skills they need for their journey from school to life. It provides a foundation for future attainment and is the crucial period when they discover not only the range of life paths they could pursue, but also their own strengths and skills. Jordan clearly recognises this. Numerous education reforms over the past three decades illustrate a continuous commitment to align what students learn with what skills are needed for life, and to participate in the knowledge economy[1]. One of the earliest of these was the 1988 Education Reform which spurred from the National Conference for Education Reform; the most recent was Education Reform for the Knowledge Economy (ERfKE): phase one in 2003 and phase two in 2009, and due to end in December 2016[2]. Both reforms focused on curriculum, teacher professional development and student learning outcomes, among other priorities.

As a result of previous and ongoing efforts, Jordan can boast some significant achievements including:

- Compulsory and free Basic Education to all children of school age[3]
- Signatory to the Convention on the Rights of Persons with Disabilities (CRPD), law number 31 for 2007 including that all children with disabilities should be taught in inclusive settings for Basic, Secondary and Tertiary education
- High enrolment rates of 98% in Basic Education and 72% in Secondary Education[4]. Jordan's net enrolment rate exceeded the average for the Arab region and for upper middle income countries by the year 2000[5]
- A rate increase of 44% in the literacy rate between 1979 and 2011 (from 66% in 1979 to 95% in 2011)[6]
- Jordan reached gender parity in access to education in 1979[7]
- Alternative accredited tracks for out of school children exist within the Ministry of Education (MoE) namely their 24 month Non-Formal Education Programme, established since 2003.

Nevertheless Jordan still faces challenges to ensure all students get the outcomes they should from Basic and Secondary Education. These include:

Access: Not all students can access schools due to income level, geographic location, disadvantaged status, special educational needs and disabilities, family obligations and refugee status. As a result, there are over 110,000 out of school children in Jordan[8] and of those that are in school there is a high rate of student absenteeism: 40% of students in Jordan reported skipping at least one entire day of school without authorization in the previous two weeks, compared to the Organisation for Economic Co-operation and Development (OECD) average of 15%[9]. Children with disabilities face tremendous challenges to access public school: with an 11%

[1] Sakarneh, M., 2014.

[2] Most activities finished at the end of 2015.

[3] MoE, Education Law no.3, 1994.

[4] MoE 2015a; MoE, 2016.

[5] UNESCO, 2015.

[6] World Bank Development Indicators, 2015.

[7] UNESCO Institute for Statistics, 2014.

[8] UNICEF, 2014 (Jordanian numbers).

[9] OECD, PISA 2012.

disability rate across the population in Jordan[10] there is a significant proportion of young people who are finding school participation and learning a challenge, or else are missing out altogether.

Quality: Teachers do not receive the training they need or have the right curriculum and assessments to help students achieve the outcomes they need to succeed. As a result, over the past 10 years there has been a decline in student learning outcomes. For example, Jordan declined to 6th place in maths (from 2nd among Arab states) and 3rd place in science (from 1st place among Arab states) in 2011 Trends in International Mathematics and Science Study (TIMSS). Likewise in the 2012 Programme for International Student Assessment (PISA), Jordan was among the 10 lowest performers of all participating countries and economies[11]. Furthermore, only 41% of students who sat for the Tawjihi exam in 2015 passed. There are concerning disparities between boys' and girls' learning outcomes, e.g. only 31% of boys achieved proficiency in reading at the upper secondary level in comparison to 68% of girls[12].

Accountability: Existing quality control processes do not prioritise the inputs that make the biggest impact, for example, teaching and strategic planning processes are not informed by data. Inspection of Basic and Secondary schools is conducted by a number of governmental ministries; however, inspections focus on infrastructure rather than quality of teaching and learning. There is a lack of consistent use of data for decision making.

Innovation: **New approaches to teaching and technology are not used enough.** Focus group discussions suggest teachers are not encouraged by their principals to be innovative in their teaching[13]. Furthermore, technology is under-utilised: around 21% of all schools do not have internet access, and the majority of the 79% of schools that are connected suffer from low connection speeds[14].

Mindset: Parents and communities need to be more involved in formal and informal learning to provide holistic support to children during their education journey. Two-thirds of public school parents reported that they do not discuss their child's behaviour or progress with their teachers; this is also true for more than half of private school parents[15]. Only 7% of parents reported volunteering in extracurricular activities at school and only 19% reported participating in a local school government or a Parent Teacher Association[16].

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[10] Department of Statistics, 2015.

[11] TIMSS out of 57 countries and PISA out of 65 countries and economies

[12] OECD, PISA 2012.

[13] QRF, 2014.

[14] MoE, 2015b.

[15] PISA, 2012.

[16] Ibid.

Vision of the Committee

In response to these challenges, the Committee has designed a range of projects with the goal that, **by 2025, all children complete equitable and quality Primary and Secondary education leading to relevant and effective learning outcomes.**

To achieve this goal, five strategic objectives were set[17]:

(1) Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand: By building schools based on strategic planning and adherence to construction codes to ensure accessibility to all students, expanding access to General Equivalency Diploma (GED) for out of school children, and ensuring that safe, nurturing and healthy school environments exist for all.

(2) Improve schooling quality:

- **a. Modernise the curriculum and assessment framework through establishing an independent body**: By establishing an independent Curriculum and Assessment Centre for pre-KG through to Grade 12, modernise Tawjihi and other key assessments
- **b. Improve the quality of the workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training**: By establishing an Initial Teacher Education Programme and comprehensive in-service teacher training to ensure all teachers are equipped and licensed

(3) Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry): By devolving more responsibilities to the Field Directorate and schools, leveraging the MoE's accountability structures to drive public and private school quality, and improving data quality and usage for decision making

(4) Use innovation and technology to leverage change in schools: By strengthening the use of technology to modernise teaching and learning and exploring innovative financial mechanisms to accelerate improvements in provision and quality

(5) Mobilise families and parents to support learning at home and in school: By carrying out campaigns to raise parents' awareness on the importance of their role in their children's learning process, both at school and at home; encouraging direct parental involvement in their children's studies and participation in Parent-Teacher Associations or extracurricular activities.

Success in achieving these aims will be evaluated through the use of the Key Performance Indicators (KPIs). The following KPIs are regarded as high-level results KPIs, which can be widely communicated and which give an overall sense of reform progress:

- Percentage of Grade 1-10 aged children enrolled in schools, including disaggregated rates by gender, refugee status, and disability status
- Number of new schools opened that meet national construction codes and adheres to the MoE Education Quality and Accountability Unit inspection criteria
- Jordan's scores in TIMSS and PISA
- Percentage of schools leaders and teachers who are licensed
- Percentage of teachers who use technology in the classroom on a regular basis.

[17] Detailed recommendations and projects are listed at the end of the Basic and Secondary Education section.

4.2 Overview of Basic and Secondary Education

Basic and Secondary Education in Jordan runs from age 6 to 17. The provision is split into two: Basic, which runs from age 6 to 15 and is compulsory for all Jordanians to attend, and Secondary, which runs from 16 to 17. Secondary Education is optional for Jordanians, where students can choose between two tracks: vocational and academic, and are currently admitted to them based on the minimum grade requirements for each stream. The MoE oversees the provision of public education in a highly centralised system and also regulates private sector provision. Figure 4.1 shows the provision of education by the various providers (public, private, United Nations Relief and Works Agency [UNRWA] and Ministry of Defence). Kindergarten (KG1 and KG2) has been included in the diagram to show the different composition of each stage, and a discussion on provision and reforms suggested for this stage can be found in the Early Childhood Education and Development (ECED) Section of this Strategy, while reforms related to school-based vocational education are addressed in the Technical and Vocational Education and Training (TVET) Section.

Figure 4.1: Number of students by provider type

Source: EMIS-Database, Ministry of Education 2014a

4.3 Global Best Practice

Increasing participation in international assessments like TIMSS and PISA has allowed researchers to identify the highest performing school systems and gather insights from their successes. In these assessments, countries such as South Korea, Singapore and Finland frequently come out on top.

High performing education systems have equity at the core of their values and operations. Equity refers to non-discriminatory and enabling practices that allow any student to reach his or her highest potential, regardless of their socioeconomic status (SES), gender, ethnicity, or physical and/or cognitive disability[18]. While increased funding can make a difference to the success of an education system, funding alone does not transform a school system from adequate to good, or from good to great. McKinsey points to the failure of significant financial investments and large educational reform efforts implemented by a number of countries to deliver better learner outcomes. For example, though spending on education in the U.S. rose 73% between 1980 and 2005, and student-to-teacher ratios fell by 18%, student outcomes 'stayed almost the same'[19].

Similar stories can be found in most countries in the Organisation for Economic Cooperation and Development (OECD), where higher spending and reducing class sizes did not make a significant difference to student performance. The three factors that matter more in successful systems are[20]:

- Attracting the right people into teaching
- Developing them into effective teachers
- Ensuring that the system is equipped so that it enables teaching to support all learners.

Top performing education systems achieve the above by making teaching an attractive career path to draw top-performers into the profession, raising the profession's status and offering competitive starting salaries. They also focus relentlessly on what happens in the classroom and show consistent and significant improvements in teacher quality. High standards for learner outcomes are supported by monitoring school and learner performance, the findings of which feed into effective interventions. Such interventions ensure that teaching is improved so that no learner falls behind and all schools at all levels of performance are given the right support. Effective leadership is an important enabling factor for success and the best systems focus on promoting the best teachers into leadership positions.

Further research published in 2010 suggests that six interventions are common to all performance stages across the entire improvement journey: building the instructional skills of teachers and management skills of principals, assessing students, improving data systems, facilitating improvement through the introduction of policy documents and education laws, revising standards and curriculum, and ensuring an appropriate reward and remuneration structure for teachers and principals[21]. Long-standing research into school effectiveness additionally emphasises the importance of setting high expectations, which is reflected in many countries' endeavours to reform standards and curricula frameworks[22].

Finally, there is compelling evidence that high performing education systems – as diverse as Singapore and Finland – have been able to draw on parental engagement in their children's learning as a factor in raising student performance. While Jordan has made efforts in engaging parents in their children's education, more can be done to coordinate and expand these efforts, as well as emphasise their importance.

[18] OECD, 2008.

[19] Barber, M. & Mourshed, M., 2007.

[20] Tabberer, R., 1994.

[21] Barber, M. et al, 2010.

[22] Leithwood, K.A. & Riehl, C., 2003.

4.4 Desired Outcomes for Basic and Secondary Education in the Strategy

The Committee believes that schools' contribution should be directed to achieve the outcomes shown in Figure 4.2 below at the heart of a concerted effort to strengthen Jordan's education system and HRD outlook:

Figure 4.2: Desired outcomes for Basic and Secondary Education in the Strategy

FOR THE KINGDOM:

- The system prepares Jordanians for work and life
- Research and data analysis identify challenges which are addressed by nimble, well-coordinated, and strategic policy process
- Jordan publishes data showing progress on student performance, teacher quality, violence levels and other indicators to further drive improvement
- Percentage of TIMSS, PISA, EGRA & EGMA scores match those in selected benchmark countries (neighbouring, regional and global) and specific target levels set by the Government

FOR STUDENTS:

- All students have access to excellent teaching and modern curricula that puts students at the center of high quality learning environment.
- Students are clear on the their career options and supported in making the right decisions
- Students are well prepared for the next stages in education and well equipped for work and life

FOR EMPLOYERS:

- Employers are engaged in curricula development early on to align skills needed
- Employers recruit from a talented pool of people that meet their needs.
- The private sector complements the public sector in both financing and delivery of education services by providing capital investments, private sector rigor, and performance management experiences to advance the expansion of education provision

FOR TEACHERS:

- Being a teacher is a well recognised and fulfilling profession.
- Teachers are well rewarded and provided with relevant incentives
- Teachers receive quality pre and in-service training
- Teachers are engaged in communities of practice to share best practice and ideas

FOR PARENTS AND THE COMMUNITY:

- Communities are engaged with providers to improve school provision
- Education continues at home and in the community throughout all stages of life

4.5 The Current State of Provision of Basic and Secondary Education in Jordan

This Section provides an outline of the current situation assessment that was conducted to inform the development of the Strategy. Assessments were made of Jordan's current status and outlook, building upon a wide range of primary and secondary research conducted by the National HRD Committee through its subcommittees, non-governmental organisations (NGOs) and other education stakeholders.

4.5.1 Access

In Jordan, enrolment and adult literacy rates are high for both males and females. Basic net enrolment is 98%, above the average for upper middle income countries. After achieving gender parity in enrolment in 1979, Jordan now has one of the highest female literacy rates in the region, at 95.2%[23].

Figure 4.3: Per-pupil expenditure by school level (GDP per capita)

Source: Education Policy and Data Centre, Jordan 2014 report

This has been achieved despite Jordan spending below the average per pupil for upper middle income countries[24]. While increased spending alone does not guarantee better outcomes, the quality of basic public school infrastructure is highly variable across the Kingdom and there is growing pressure on school infrastructure to provide universal access to education to all students within school age. This has been made even more challenging by the influx of Syrian refugees and domestic population growth.

Ensuring access is a challenge on several dimensions, including income level, geographic location, disadvantaged status, special educational needs and disabilities, and refugee status. Currently, the distribution of schools is not in accordance with population demands. Around 20% of schools have fewer than 100 students. These schools are less efficient and lower-performing than the national average. The MoE has made efforts to rationalise these schools, shutting down 27 schools with fewer than 30 students in 2015[25], and aims to continue merging schools with fewer than 100 students based on findings from the 2nd School Rationalization Study that is to be conducted by the National Centre for Human Resource Development (NCHRD) in 2016. Additionally, infrastructure quality and student outcomes are poor, particularly in rented schools.

[23] UNESCO, 2015.

[24] Education Policy and Data Centre, 2014.

[25] World Bank, 2016.

Special educational needs

In the last ten years, there have been efforts to improve the overall conditions for people with disabilities: the CRPD has been signed by Jordan; sub-component four of ERfKE II addressed special education; and, the TAKAFO Campaign promoted the Rights of Persons with Disabilities. The Law on the Rights of Persons with Disabilities number 31 (2007) states that the MoE is responsible for providing inclusive basic and vocational education for all children with disabilities or learning difficulties. Despite this, it is common for students with disabilities to be segregated in specialised centres, or placed in mainstream schools but separated for the majority of the day in different classrooms from their peers. A total of 604 resource rooms in the Kingdom serve 14,090 students with disabilities[26]. The Special Education Directorate at the MoE estimated that only 10% of MoE schools were considered accessible for students with disabilities in 2012[27].

In addition to the limitations in the physical infrastructure restricting access for students with disabilities, a medical model currently serves as the basis for students to access education. This gives medical authorities the absolute power to determine the needs of persons with disabilities, which often leads to inadequate placements in schools[28].

Furthermore, there is a lack of adequate training for public school teachers and staff who work with students with disabilities and special needs. In addition, the fragmentation of educational provision between the MoE (for the majority of students with disabilities) and the Ministry of Social Development (MoSD) (for students with moderate to severe mental disabilities) has resulted in restrictions for students wanting to sit for certain examinations since the MoSD operates curricula and training independently of the MoE.

Syrian refugees

Around 80% of Syrian refugees reside in host communities, which has put huge pressure on the education system and subsequently impacted the quality of education that some Jordanian children receive. In 2015/2016 school year, there were over 143,000 Syrian students enrolled in public schools, an 875% increase from 2011/2012 year[29]. The substantial increase in Syrian refugees of school age combined with a domestic population boom has put substantial strain on public school provision. The surge in demand has caused an increase in double shift schools, with 11.7% of schools operating a double shift system in the 2014/15 school year, serving 17.1% of all students. The MoE expects the number of double shift schools to increase slightly over this scholastic year[30].

The Ministry of Education estimates that the recurrent cost of hosting Syrian students in public education is around JOD 115 million per annum and requires an additional 260 new schools. The Government has made significant efforts to ensure school-aged Syrian refugee children enrol in school, but limitations in existing infrastructure, poor transportation, child labour, violence in schools, early marriage and other issues have resulted in an enrolment rate of just 62%[31]. For children that are unable to attend formal education there are Non-Formal Education (NFE) and Informal Education (IFE) options available, but there a limitations in access. In 2015, 26,000 children participated in IFE and 1,100 children (Jordanian, Syrian and other nationalities) participated in NFE[32].

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[26] Mattingly, J., 2011.

[27] Al-Azzeh, 2012.

[28] Ibid.

[29] MoPIC, 2016.

[30] MoE, 2016.

[31] UNICEF, 2015.

[32] MoPIC, 2016.

Gender

Jordan achieved gender parity in enrolment in 1979 and has one of the highest female literacy rates in the region at 95.2%[33]. In fact, female students in Jordan outperform their male students on the Early Grade Reading Assessment (EGRA) and Early Grade Maths Assessment (EGMA), early literacy and numeracy assessments, on the National Assessment for the Knowledge Economy (NAfKE), and on international assessments such as PISA. Only 31% of boys achieved proficiency in reading at the upper secondary level in comparison to 68% of girls[34], and new strategies are needed to ensure boys receive high quality learning experiences catered to their needs within safe and engaging school settings. At the same time, challenges like early marriage do persist in some communities, and 10% of girls are married before turning 18 years old[35].

Rural/urban divide

There is a significant gulf in the quality of education received in rural and urban schools. Eighty one percent of schools where no student passed Tawjihi were in rural areas, compared to just 47% of all schools with 12th graders[36]. The incentives that currently exist to encourage teachers to move to remote rural schools have done little to address the shortage of high quality teachers. As teachers in rural areas acquire more experience and achieve higher qualifications, they often opt to move to urban areas, and some, particularly males, leave the teaching profession altogether[37]. The lack of a high quality basic education restricts many rural Jordanians from accessing further education and skilled employment.

Out-of-school children

There are over 110,000 children of school age not currently enrolled in formal education in Jordan (over 30,800 Jordanians and 83,259 Syrians) for various reasons related to school environment or family pressures and obligations[38]. Furthermore, the PISA 2012 survey revealed that there is an alarming truancy rate, where 40% of students in Jordan reported skipping at least one entire day of school without authorisation in the previous two weeks, compared to the OECD average of 15%[39]. As children with sporadic attendance are at risk of underperforming and dropping out of school, accurate data tracking systems would be useful to prevent drop-out among all vulnerable groups, such as boys that are obliged to work to support their families or girls who marry early[40]. Furthermore, there is a lack of comprehensive enforcement of laws regarding access.

There are limited accredited alternative pathways available for children that have been out of school and are illegible to return to formal education according to MoE regulations. One of the main options available at the MoE is their NFE programme, which was established in 2003 in partnership with Questscope, and is the only fully accredited GED. The main objective is reducing the number of dropouts and out-of-school (OOS) children and youth in Jordan by offering alternative pathways to formal education. From 2003 to 2016, more than 13,000 young people have enrolled in NFE, and more than 500 MoE teachers received training as NFE facilitators to build the human resource capacity of MoE for the programme[41].

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[33] UNESCO, 2015.

[34] Ibid.

[35] UNICEF, 2014.

[36] MoE, 2015c.

[37] Identity Center, 2015.

[38] MoPIC, 2016.

[39] OECD, PISA 2012.

[40] UNESCO, 2014.

[41] Questscope, April 2016.

4.5.2 Quality

Despite positive measures and many teachers' best efforts and achievements, Jordan's education system has experienced a comparative decline in the past ten years[42]. More than 80% of 2nd and 3rd graders are not reading with comprehension[43]. Furthermore, scores on the international TIMSS assessment declined by 5% between 1999 and 2011[44].

Figure 4.4: Trends in TIMSS scores

Source: TIMMS and PIRLS International Study Centre, 2012a;

TIMMS and PIRLS International Study Centre, 2012a

The key elements impacting the quality of education in Jordan include curriculum, assessment methods and teachers.

Curriculum quality

The school curriculum in Jordan has become outdated and does not include the appropriate elements to equip students with the skills and knowledge they need to succeed in life and work. Despite reforming the General Framework for Curricula and Assessment under ERfKE II to incorporate critical thinking and problem solving strategies within the curriculum, there is still too much emphasis on rote learning and on traditional pedagogies and delivery techniques. A recently conducted review of the lower primary revised textbooks revealed that these textbooks offer limited hands-on, activity and group-based learning and do not place enough emphasis on critical thinking and problem-solving strategies. For example, the lower primary science curriculum and textbooks only allocate 15% of the overall mark to experimentation, while 85% is allocated to theoretical knowledge[45]. The subject material is often significantly out-dated to the point that textbook examples no longer relate to real world practices.

There is a lack of consistent learning standards or clear vision for teaching and learning that aligns with skills demanded in a knowledge economy. The curriculum is officially intended to promote tolerance, respect and acceptance of people of other faiths and cultures; however, reviews have suggested that this is not clearly reflected both within the textbooks produced or in the pedagogical approaches used, potentially facilitating intolerance or marginalisation of women's role in society[46]. The process for curriculum and textbook development lacks the appropriate expertise and does not align with international best practice. For example, the MoE went through a reform process for the grade 1-3 curricula and textbooks in 2014 with the goal of improving the literacy and numeracy skills of lower primary grade students. External reviews of the revised curriculum and textbooks conclude that the revision did not improve basic primary level competencies[47].

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[42] World Economic Forum, 2016.

[43] USAID, EGRA 2012.

[44] TIMMS and PIRLS International Study Centre, 2012a; TIMMS and PIRLS International Study Centre, 2012b .

[45] MoE, 2015a.

[46] Abu Jaber, M., 2014.

[47] MoE, 2015a.

Assessment quality

Reforming student assessment is recognised as an important component in improving the quality of the education system. There is a lack of alignment between the set national and international assessments that are conducted at school. The lack of coordination between these assessments has resulted in overlapping purposes and an inability to accurately measure the performance of each student cohort from the start of Grade 1 to the end of Grade 12.

The school assessment system, and the success of students within it, is too heavily dependent on one set of high-stakes summative exams, the Tawjihi exam. Tawjihi currently serves as the method to certify students in Secondary Education and regulate enrolment of students for Higher Education (HE) programmes, whether in TVET centres or universities. However, Tawjihi fails to test the full range of skills required to succeed in tertiary education and 21st century employment. For example, a review of the maths assessment for the years 2010, 2011 and 2012 showed that the average weight given to information retrieval was 68%, with 25% of the weight given to communication skills, leaving only 7% for problem-solving and critical thinking[48]. This incentivises students and teachers to focus on rote memorisation rather than developing the skills that will enable them to succeed in further education, work and life.

Only forty one percent of students who sat for Tawjihi in 2015 passed; this low pass rate delays or completely restricts the opportunity for many students to progress into HE or TVET institutions. Meanwhile, there is a significant number of students who never register or register and never sit for the examination; 43% of all students enrolled in the 2014-15 scholastic year did not sit for the Tawjihi, either dropping out or opting to delay it till 2016. Of those, 36% registered for the 2015 examination but never sat for it[49].

There have been many Tawjihi reform efforts which have focused on procedural issues but have not addressed challenges like the overemphasis on rote memorisation and high stakes nature of the examination[50].

Teacher quality

The Committee recognises the importance of teachers and feels that teacher quality is currently being constrained by problems in recruitment and selection, as well as training on both the pre-service and in-service level.

University admissions for teacher programmes

The admissions criteria at universities for education programmes (B.Ed.) are low when compared to other professional subjects. This results in the selection of less competent students to enter the profession. The average Tawjihi score for newly hired teachers at the MoE was 65% (the minimum score for admission to the public university system) in the most recent year with available data (2010)[51]. In contrast, a minimum score of 85% is required for admission into the faculties of medicine and dentistry, and 80% for faculties of pharmacy and engineering across the country's leading universities[52]. Since the Ministry of Higher Education and Scientific Research (MoHESR) made an executive decision to remove all 'Field Teacher'[53] tracks in B.Ed. programmes in 2006/2007, B.Ed. graduates are only academically qualified to teach grades 1 through 3 or 4, in addition to special needs students and early childhood educational years. Consequently, approximately one third (29%) of teachers have B.Ed. degrees, while the remainder (who teach grade five and up) have B.A. or B.Sc. degrees in Arabic, Maths, Science, etc. but with no theoretical exposure to education or practical training in pedagogies.

[48] Obeidat, O. and Dawani, Z, 2014.

[49] MoE, 2015a.

[50] Obeidat, O. and Dawani, Z, 2014.

[51] Ibid.

[52] Unified Admissions Policy for Official Universities in Jordan, 2015/2016.

[53] The 'Field Teacher' track trained Student Teachers in pedagogical practices and educational concepts that are specialised for grades 5 to 10.

Teacher recruitment

The teacher recruitment process for public schools is currently run through the Civil Service Bureau (CSB). Entry requirements are very low and selection is heavily weighted in favour of the length of time in the CSB queue and graduation year rather than on academic achievement, ability and motivation to become a teacher. The criteria for applications to the teaching profession in public schools are weighted as follows: 9% for post-secondary grade, 9% for Tawjihi score, 28% for graduation year, 19% for application year, 19% for CSB examination (content based), and 9% for interview[54]. Although the examination was intended to make the hiring process more merit-based and competitive, the seniority factor still plays the largest role by determining which candidates have the opportunity to sit for an exam. Moreover, the exam's academic focus does not address candidates' teaching competencies[55]. Furthermore, candidates have an unlimited number of chances to repeat exams if they have failed to pass, which means that other, perhaps more suitable, candidates have to wait longer for their turn to sit for the CSB examination.[56] Since the first introduction of interviews into the selection process, none have actually been conducted due to shortage of time[57].

Recruiting qualified teachers is especially challenging in the South of Jordan and in rural areas given the lack of resources in those areas and the few incentives provided for teachers to work there[58]. Furthermore, the MoE has made exceptions over the years to allow teachers with community college degrees to enter the teaching profession in order to fill the teaching vacancies for certain subjects where supply of teachers is insufficient.

The recruitment process for private schools is determined by those institutions. These schools therefore have the ability to conduct a more rigorous recruitment process based on capability, motivation and qualifications. However, the shortage of high quality teachers and a lack of effective monitoring and evaluation system has resulted in some private schools lowering recruitment standards and employing academically unqualified teachers (i.e. community college degree holders or teachers assigned to subjects for which they have little to no specialised knowledge).

The current recruitment process for teachers in Jordan does not align with the practices of high performing school systems where entering the teaching profession is substantially more competitive than in Jordan. For example, in Singapore only secondary school graduates who are in the top 30% of the cohort are eligible to apply to become teachers, and only 12.5% of applicants are admitted to the country's prestigious National Institute of Education. The screening process is a rigorous one; applicants sit through competitive exams, tough panel interviews, intensive reviews of their academic records and their contribution to their schools and communities. These practices have helped raise the prestige of the profession in these countries and improve the capabilities of teachers.

Initial teacher training

There is no licencing system for teachers nor a consistent level of initial (pre-service) training for private or public school teachers[59]. Twenty eight percent of public school teachers and 44% of private school teachers did not receive any teacher training before entering the profession, and only about a quarter received training of longer than two months. Of the teachers who did receive training, 82% of public and 86% of private school teachers said they 'agreed' or 'strongly agreed' that after participating in the training, they had a set of teaching techniques that they could immediately use in their classrooms[60]. Currently, teachers may receive training before entering the profession either from B.Ed. programmes at universities or from induction training organised by the MoE. The latter has been described as insufficient in both duration (ranging from two weeks to two months) and quality of training; the induction training was unable to provide teachers training in more than basic classroom management concepts[61]. Furthermore, the lack of a teacher licencing system for both the private and public sectors, which expects teachers to meet a set of criteria on a recurring basis (e.g. a certain number of trainings within a time

[54] CSB, 2016.

[55] Ibid.

[56] Ibid.

[57] Ibid.

[58] Ibid.

[59] World Bank, 2010.

[60] QRF, 2014.

[61] MOE, 2014b.

period to be relicensed), has resulted in many unqualified, unmotivated and, in some cases, unsuitable individuals becoming teachers.

In-service teacher training

In terms of formal in-service teacher training, there is no consistent level of training for teachers in either the public or private sector. Only 43% of public school teachers and 29% of private school teachers received formal in-service training in the past two years. In comparison, 91% of upper-secondary teachers in OECD countries surveyed had received in-service training or professional development within the year preceding a recent survey[62]. There is a lack of information on informal training in Jordan at the individual school level, particularly in the private sector.

Countries with high achieving education systems (e.g. Singapore, Hong Kong, Canada, Australia, and Finland) put professional development at the centre of teachers' day-to-day jobs[63]. Teacher professional development is the primary mechanism for improving student learning and school performance, and it is how teacher performance is evaluated. These teachers work in systems that are organised around improvement strategies explicitly anchored in teacher professional learning, oriented around the following steps:

- Assess students' learning to identify their next stage of learning (at either an individual or school level)
- Develop the teaching practices that are tailored for the next stage of student learning (based on evidence)
- Evaluate the impact of new practices on student learning.

Non-governmental initiatives

Despite the challenges, individual initiatives in Jordan have made commendable progress in improving teacher training. However, until now these initiatives have not been scaled across the system. The MoE, in partnership with the Queen Rania Teachers Academy (QRTA), is launching an Initial Teacher Education Programme (ITE) to introduce standard pre-service training programmes for teachers in Basic and Secondary Education. This Programme will, in time, award teacher qualifications in line with international best practice.

The Early Grade Reading and Mathematics Project (RAMP) aims to train 14,000 teachers in 2,500 government-run schools within the next five years to raise the percentage of Grade 2 and 3 students who read with comprehension and do mathematics with understanding from 12% in 2012 to 55% by 2019. This US$ 48 million project, funded by the US and the UK, aims to achieve its goals by improving learning materials, providing teacher training, engaging communities to participate in education and supporting the government in its endeavours[64].

The Jordan Education Initiative (JEI) has also made positive contributions to teacher training by introducing technology with proven modern teaching strategies. However, these training initiatives – whether from the public or private sectors or NGOs – are not coordinated under an overall-arching teacher training strategy. There is no comprehensive approach for teacher training that identifies training needs based on the system's strategic direction. Also, professional development currently seems to be focused mainly on training with little consideration to other methods such as school-based coaching, collaborative planning, or reflective practice.

[62] OECD, 2014.

[63] Schleicher, A., 2016.

[64] USAID, 2016.

4.5.3 Accountability

Governance

The MoE, and the 43 sub-divisions that report to it, oversees public and private Grades 1-12 education in Jordan[65]. The MoE controls public schools through a highly centralised system where individual schools have historically had little autonomy or control. Under ERfKE II, there have been efforts focused on granting Field Directorates and schools more responsibility under the School and Directorate Development Programme (SDDP), particularly with regard to school development and improvement. This has culminated in a new Education Quality and Assurance Unit (EQAU) at the MoE, for which the reform is still underway and the capacity building stage is not yet complete. However, this initiative has the potential to gradually decentralise the current system allowing the MoE-HQ to focus on planning, strategy and policy making.

In contrast to public schools, private providers are allowed to supplement the national curriculum with high quality international materials and have autonomy in other key areas such as staff recruitment.

Leadership quality

Currently, the role of school principals is primarily focused on serving as middle managers, attending to logistics rather than supporting teachers and enhancing teacher quality. The current centralised system does not give sufficient autonomy to school leadership and teachers to be able to implement new initiatives tailored to their local context. Furthermore, the career progression system does not promote the best or most equipped teachers into leadership positions; instead it rewards those who have stayed the longest in the system. While there is significant awareness on the need for teacher training and licensure, little focus has been given to the development of school leadership other than the development of the 2010 Framework for Leadership Standards document.

Quality assurance

The MoE, Ministry of Labour (MoL) and Ministry of Health (MoH) all conduct inspections in Basic and Secondary schools; however, inspections have historically focused on infrastructure issues rather than quality of teaching and learning. Inspection units are under-resourced and follow-up is often lacking; for example, to ensure fines for violations by private schools have been paid. The ineffective monitoring and evaluation system has failed to ensure that baseline quality standards are maintained in all schools across Jordan, public and private. The gulf in quality between schools is particularly prevalent when comparing rural and urban schools, as well as public and private schools. The MoE's newly-established EQAU is tasked with increasing accountability throughout the public system and providing support to schools to ensure baseline qualities are maintained.

Professionalisation of the teaching profession

The MoE developed a grading and career progression scheme for teachers in the 2002 Instructions on Teachers' Ranks and again in 2010 in both the Teachers Policy Framework and Framework of Leadership Standards, but these have not been fully implemented. The current system fails to incentivise training, good performance and results, and teachers report that appraisals emphasise textbook completion rather than performance and results. There is no correlation between performance and remuneration, nor are allowances allocated towards teachers who assume more leadership responsibilities or carry out educational and extracurricular tasks outside of their basic job description. Existing allowance could be allocated more strategically as incentives for teachers to attend training and self-development courses, or take on greater responsibilities. Career progression is nominally linked to indicators like performance, training and results but this is not widely implemented.

A novice teacher with a Bachelor's degree starts at rank 7 (out of 9) in the Second Category professional ladder. Around 65% of teachers are in ranks 4-6, while 3% progress into the First Category to assume leadership roles in education, and only 0.06% manage to progress further into the Special Category to assume roles in strategic planning in education[66]. This restricts the improvement of the system and those within it as individuals have little-to-no incentive to improve and advance their careers. Professionalisation of teaching will require a fully implemented continuing professional development framework to ensure teachers have incentives to attend trainings and improve their practice. The 2010 Teachers Policy Framework could serve as the basis to establish a continuous professional development system in alignment with a rigorous certification and licencing process.

[65] MoE, 2015c.

[66] Sawalmeh. Y, 2014.

Data-led decision making

An Education Management Information System (EMIS) has been developed in partnership with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and an open source version is publicly accessible. The new system is designed to build data and management capabilities within the system to increase transparency and accountability and drive and inform improvement programmes. For the new EMIS to be successful, it needs to be successfully integrated into current operations. This will require ongoing training to ensure teachers, school leaders and MoE officials are able to use and input data effectively into the system. The MoE also needs to ensure stakeholders at all levels have access to dashboards containing the data they need to drive improvements.

4.5.4 Innovation

Innovation can play a greater role in leveraging the existing assets in the system to achieve positive change in schools. This transformation can be driven by two major efforts: first, integrating technology in teaching and learning and, secondly, using innovation to expand school provision.

Despite significant efforts to integrate technology into education in Jordan, technology is under-utilised. Around 21% of all schools do not have internet access, and the majority of the 79% of schools that are connected suffer from low connection speeds[67]. Most schools are equipped with computer labs and peripherals but the equipment is generally outdated and some is verging on obsolete[68]. Due to a lack of clear communication around the vision for using technology to enhance learning, most school leaders and teachers do not see technology as an effective tool to enhance learning and have not successfully integrated technology into the curriculum or pedagogical approaches. Teacher training in the use of technology has occurred but has not produced the desired outcomes. Focus group discussions suggest teachers are not encouraged by their principals to be innovative in their teaching[69].

A new national strategy for information and communications technology (ICT) in Education was recently developed to address these challenges. The success of this strategy will depend on the commitment of leaders at every level to follow through and ensure the strategy is faithfully implemented, as well as clearly and concretely communicated across the system, highlighting how technology can be used to serve the larger vision for effective teaching and learning.

Private education

The private education sector in Jordan has been growing, experiencing a 6% student growth rate in 2013/2014[70]. It now constitutes 41% of the total number of schools and 24% of the Basic and Secondary Education student populations in Jordan. In 2014/2015, 52% of these were kindergartens (KG1 and KG2); 24% were K-6 schools; and another 24% were K-12 schools[71].

Students attending private schools outperform their public school counterparts on PISA, TIMSS, NAfKE, and Tawjihi by wide margins. While public school students in the 8th grade achieved an average TIMSS science score of 443 in 2011, the average score among private school students was 69 points higher at 512. A similar trend can be found in all subjects across all international and national assessments. A small elite class of private schools charge high fees, ranging between JOD 15,000 to JOD 21,000 per year. However, the majority of schools—mostly located in Amman—charge much lower fees, sometimes as low as JOD 200 a year. Since private schooling is only available for families with financial means, this could have negative consequences for inequalities between higher and lower-income families in Jordan. Further research is needed to explore the programmes that could enable private schools to expand provision to reach more socioeconomically disadvantaged students, and to monitor the impact of expansion of private schooling on educational equity.

[67] MoE, 2015b.

[68] MoE, 2015a.

[69] QRF, 2014.

[70] MoE, 2014a.

[71] MoE, 2015a.

Research suggests that the higher performance of private schools may be rooted in differences in resources. Significantly more MoE schools reported shortages in space and resources than private schools in the PISA 2012 survey. Almost half of MoE schools (45%) struggle with insufficient instructional space compared to only a quarter of private schools. Only 4% of private schools report shortages in library materials to 'some' or 'a lot' of extent compared to a third of MoE schools. More than half of MoE schools (55%) also face great shortages in buildings and school grounds (compared to 33% of private schools), 40% lack science lab equipment (compared to 29% of private schools), and 63% struggle with inadequate heating/cooling and lighting (compared to 41% of private schools).

Private schools are able to be more innovative than public schools due to private schools' higher levels of autonomy. There is a small selection of private schools (5% of the entire sector) that offer internationally renowned curricula and assessments and perform well against international benchmarks[72]. However, the majority of private schools are small institutions, and many owners lack financial management skills to sustain and grow their businesses[73]. Furthermore, these education businesses are required to pay a number of taxes despite identification of Education Services as a key economic growth sector in *Jordan 2025*.

Despite their advantages, private schools in Jordan have some major shortcomings. Labour reports have found that many private schools pay their teachers below minimum wage or even withhold payment altogether for months at a time[74]. Furthermore, the gender wage gap (in basic salary) in favour of men in the private education sector was 42% in 2013[75]. Improved regulation and coordination between the MoE and the MoL are needed to ensure private schools treat their teachers fairly.

4.5.5 Mindset

National values and identity

Regional instability is putting more pressure on Jordan's education system to instil national values of unity, tolerance and inclusiveness. Media and research reports have reported that elements of the current textbooks may facilitate intolerance of other faiths and marginalise women's role in society. The new curriculum reform and teacher training will need to take into consideration the importance of instilling national values.

Teachers' status

Although Jordanians value education highly, teaching is seen by many as an un-prestigious profession. Over 47% of participating teachers in a national survey said they became a teacher because 'it was the best option available' or for 'lack of a better option' instead of passion for teaching or other positive motivations[76]. As a result, there are reports of unqualified, unmotivated and in some cases unsuitable individuals becoming teachers. The negative perceptions of the teaching profession may be attributed to the low standards adopted in the teacher selection process at the CSB. Furthermore, there is no formal Continuous Professional Development (CPD) system whereby teachers would need to continuously train in order to be licensed and relicensed to practice the profession, compared to doctors, lawyers or engineers who have to go through specific trainings and sit for regular examinations to progress in their careers. The professionalisation of teaching by increasing selectivity, instituting a licensure and re-licensure system, and raising standards for both pre- and in-service training can help overcome this stigma and raise the prestige of the profession.

[72] *Jordan 2025*.

[73] USAID, 2012.

[74] Labor Watch, 2010.

[75] ILO, 2013.

[76] QRF, 2014.

Parental and community engagement

Whilst Jordanians acknowledge the importance of formal education, not all communities see education and learning as a collective responsibility. The majority of teachers cite disengaged students and parents as their top professional challenge after salary[77]. Two thirds of public school parents reported that they do not discuss their child's behaviour or progress with their teachers, and this is also true for more than half of private school parents as well[78]. Only 7% of parents reported volunteering in extracurricular activities at school and only 19% reported participating in a local school government or a Parent Teacher Association[79] (PTA).

The proportion of parents who regularly read to their children is low, even when compared to similar countries in the region. More than 40% of Jordanian mothers with children under five do not read to their children even though children of mothers who read to them are four times more likely to recognise more than 10 Arabic letters by the age of five[80]. This is a trend that continues into Basic and Secondary Education; nearly 60% of students across all sectors in Jordan report having fewer than 25 books at home, and one-third of public school students report having fewer than 10 books at home[81]. Media campaigns and an effective public information service could be mobilised to inform parents and parent-teacher organisations. Additionally, other initiatives could build stronger ties between families and schools.

4.6 Strategic Objectives

The National HRD Committee has identified five strategic objectives to address the key challenges faced and achieve the outcomes sought for Basic and Secondary Education:

B&SE1	Access – Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand.
B&SE2a	Quality – Modernise the curriculum and assessment framework through establishing an independent body.
B&SE2b	Quality – Improve the quality of the workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training.
B&SE3	Accountability – Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry).
B&SE4	Innovation – Use innovation and technology to leverage change in schools.
B&SE5	Mindset – Mobilise families and parents to support learning at home and in schools.

[77] QRF, 2014.

[78] OECD, PISA 2012.

[79] Ibid.

[80] QRF, 2016.

[81] OECD, PISA 2012.

4.7 Projects required to achieve outcomes sought

The National HRD Committee has selected a set of projects under each strategic objective to achieve the outcomes sought:

Strategic Objective	Projects
B&SE1: Access – Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand.	B&SE1.1: Open new schools strategically B&SE 1:2 Rationalise poor performing small schools B&SE1.3: Increase capacity to serve students with disabilities and special needs B&SE1.4: Improve provision for Syrian refugees B&SE1.5: Expand national-level General Education Equivalency Diploma system to cover all out-of-school children and youth B&SE1.6: Improve school environments to ensure they are safe, nurturing and healthy
B&SE2a: Quality – Modernise the curriculum and assessment framework through establishing an independent body.	B&SE2a.1: Establish an independent Curriculum and Assessment Centre B&SE2a.2: Modernise the Basic and Secondary Curriculum B&SE2a.3: Modernise and align Tawjihi and other key assessments
B&SE2b: Quality – Improve the quality of the workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training.	B&SE2b.1: Reform admissions process at universities for fields related to education B&SE2b.2: Improve teachers' selection process B&SE2b.3: Establish an Initial Teacher Education Programme B&SE2b.4: Develop comprehensive in-service teacher training
B&SE3: Accountability – Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry).	B&SE3.1: Introduce a teacher certification and licencing system B&SE3.2: Devolve more responsibilities to the Field Directorate and school level B&SE3.3: Introduce a school leader certification and licencing system B&SE3.4: Revise the teacher ranking system and appraisal process B&SE3.5: Leverage MoE accountability structures to drive public and private school quality B&SE3.6: Improve data quality and use of data to aid accountability and improvement
B&SE4: Innovation – Use innovation and technology to leverage change in schools.	B&SE4.1: Explore innovative financial mechanisms to accelerate improvements in provision and quality

	B&SE4.2: Stimulate growth in high quality private provision B&SE4.3: Strengthen the use of technology to modernise teaching and learning
B&SE5: Mindset – Mobilise families and parents to support learning at home and in schools.	B&SE5.1: Mobilise families and parents to support learning at home B&SE5.2: Mobilise families and parents to support learning in schools

B&SE1: Access – Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand

Project Title	**B&SE1.1: Open new schools strategically**
Objectives	Increase access to high quality schools. The project should target areas where there is the highest need for new schools.
Activities	Open new schools to: • Meet growing demand caused by domestic population growth rate and incoming refugees. • Replace rented schools. • Eliminate the need for double-shift schools. • Replace inefficient, low quality small schools. • Increase the number of mobile schools (schools with detachable/ modular classrooms) to allow flexibility in schools' relocation and future use. Ensure that all newly built schools adhere to national construction codes which make schools safe and accessible to students with disabilities. This will be achieved by: • Establishing a school development plan that prioritises areas where expanding provision is most needed and redistributes the school map to match long-term demand. • Developing a database and system for school maintenance. • Developing and approving standards for school construction plans.
Responsibilities	• MoE (Managing Directorates [MDs] of Educational Planning and Research, School Buildings and International Projects). • Ministry of Planning and International Cooperation (MoPIC). • Ministry of Public Works and Housing (MPWH). • Donors.
Current Status	A substantial increase in student numbers due to domestic demographics (e.g. one third of the population is under the age of 14) and Syrian refugees are putting substantial strains on the existing public provision. To address this, the MoE plans to provide 100 new schools to accommodate 50,000 additional children for the 2016-17 school year.
KPIs	• Basic and Secondary school enrolment rate by 2025. • Number of new schools opened that meet national construction codes and adhere to EQAU inspection criteria. • Number of rented schools by 2025.

	• No Double-Shift schools in operation by 2025. • Percentage of stand-alone schools with fewer than 100 students. Increasing the number of classrooms through providing the school extensions and new school buildings or building 60 schools annually for ten years to meet the expected increase in the number of students by 25,000 new students.
Risks and Mitigations	• Risk: Geographical distribution of new schools is not correlated with demand. Mitigation: Planning for new school development should be based on robust data analysis and projections of demand.
Phase of Implementation	Phase 1

Project Title	**B&SE1.2: Rationalise poor performing small schools**
Objectives	Remove small schools that are inefficient and deliver low quality teaching.
Activities	Develop Geographical Information System (GIS) capacity to improve school mapping and planning within the MoE. Review options for schools with fewer than 100 students taking into account exceptions. Options could include: • Merging schools with fewer than 100 students. • Establishing clusters of smaller schools to collectively run the cluster and provide support and share best practice. Establish a communication strategy for parents/communities to advocate the benefits of rationalising poor performing small schools (e.g. improved teacher quality, access to more Tawjihi programmes).
Responsibilities	MoE (MDs of Educational Planning and Research, School Buildings and others). UNESCO and other donors.
Current Status	Currently 20% of schools have fewer than 100 students. These schools tend to be more inefficient and lower performing than the average school.
KPIs	• Number public schools with fewer than 20 pupils. • Percentage of free standing public schools with fewer than 100 pupils.
Risks and Mitigations	• Risk: Public opposition to policy of closing local schools. Mitigation: Engage local communities to explain reasons for closing these schools and the advantages their children will have in changing schools as well as offering services e.g. transportation where necessary.
Phase of Implementation	Phase 1

Project Title	B&SE1.3: Increase capacity to serve students with disabilities and special needs
Objectives	Ensure children with disabilities and special needs have access to a high quality education with the staff capability and infrastructure to meet their needs.

Activities	• Develop educational assessment centres or committees made up of multidisciplinary teams (psychologists, educationalists etc.) to assess the educational needs of students with disabilities or learning difficulties and abolish the use of medical reports as the sole basis for student placement.
	• Renovate existing schools to comply with the national construction codes to eliminate the environmental barriers restricting students with disabilities from attending school.
	• Build teachers' capacities by:
	  ○ Enforcing mandatory modules on disabilities and inclusion in B.Ed. specialisations outside the Special Education major and other pre-service preparation.
	  ○ Introducing in-service compulsory training courses on inclusive, student-centred learning.
	• Assess the feasibility of introducing Learning Support Assistants (LSAs) positions at MoE along with university certification programmes and teacher professional development.
	• Conduct long-term strategic awareness campaigns combined with services to promote the rights of students with disabilities to be included in mainstream education.
	• Review the provisions of the Education Law No. 3/1994 and Law No. 31/2007 to ensure full equality and equal opportunities, as guided by the CRPD's provisions and principles.
	• Enforce compliance of current legislation for the provision of education for students with disabilities.
	• Expand online resources to increase access to education for students with disabilities.
	• Establish a mechanism to coordinate efforts, roles, and responsibilities of the relevant stakeholders, especially those between the MoE, MoSD, Higher Council for Affairs of Persons with Disabilities (HCD), MoH, training centres, civil society organisations (CSOs), and private sector.
	• Utilise the new EMIS to improve data collection and dissemination of information about students with educational and/or medical disabilities and the resources they are receiving.

Responsibilities	• MoE • HCD • Donors (e.g. Mercy Corps, Handicap international, UNICEF etc.) • MoSD • MoH
Current Status	Jordan signed the CRPD in 2007, and the Law on the Rights of Persons with Disabilities no. 31 (2007) states that MoE is responsible for providing a quality inclusive education for all children with disabilities or learning difficulties. However, Jordan still relies almost entirely on a private educational, non-inclusive environment for students with disabilities/gifted students. Reliance on medical reports as the sole basis for identification often leads to inappropriate placements and insufficient support in schools. Additional barriers include lack

	of teacher awareness and training, physical accessibility, and fragmentation of responsibilities for education offered to students with disabilities between MoSD and MoE.
KPIs	• Percentage of students with disabilities who are enrolled in inclusive versus integrated public schools (disaggregated by location, gender, age). • Number of new and existing teachers trained on inclusive teaching practices and teaching students with disabilities (disaggregated by gender). • Parental satisfaction ratings of the support their children with disabilities receive at school (by survey). • Number of schools that are able to accommodate students with disabilities (disaggregated by gender, location, type i.e. basic/secondary etc.). • Literacy and Mathematics performance for students with disabilities and learning needs e.g. EGRA, EGMA, TIMSS, PISA (disaggregated data by disability or special needs).

Risks and Mitigations	• Risk: New and existing legislation is not enforced due to lack of commitment or resources.
	Mitigations:
	  ○ Consult schools in developing new legislation and processes to ensure successful implementation.
	  ○ Set schools targets for implementing legislation.
	  ○ Provide schools with additional funding, where required, to implement new and existing legislation.
	  ○ Create incentives for schools to implement legislation and punishment if they fail to do so.
	• Risk: Lack of institutional commitment to implement changes due to lack of belief that all children can succeed.
	Mitigations:
	  ○ Provide school staff with the training required to implement new and existing legislation.
	  ○ Engage stakeholders to show the importance of ensuring all children have access to a quality education that meets their needs.

Phase of Implementation	Phase 2

Project Title	**B&SE1.4: Improve provision for Syrian refugees**
Objectives	Increase the enrolment rate of refugee children.
Activities	• Expand NFE opportunities to accommodate children under 13 or modify the rule excluding children under 13 who have been out of school for a year from having to enter NFE before entering formal education. Also, make entrance exams available more than once per year. • Expand informal education learning opportunities to restore out of school children to formal or non-formal certifiable education. • Provide remedial and enrichment programmes for Syrian students during the summer holidays.

	• Increase number of Syrian teacher assistants to reduce pressure on Jordanian teachers. • Formalise employment contracts for teacher assistants from Syria, and assess the feasibility, costs and benefits of allowing Syrian teachers to work as teachers in Jordanian schools. • Provide Syrian students with feeding services in schools covered by the school feeding system. • Train school principals, educational counsellors and teachers (both full-time and contract) to provide appropriate psychosocial support to Syrian refugees. • Ensure laws on early marriage and child labour are enforced.
Responsibilities	• Donors • Civil Society Organisations • United Nations High Commissioner for Refugees (UNHCR) • MoE
Current Status	In the 2015/16 school year there were over 143,000 Syrian students enrolled in public schools, an 875% increase from the 2011/12 school year[82]. The estimated recurrent cost of hosting Syrian students in public schools is around JOD 115 million and an additional 260 new schools are required according to the MoE. The Government has made significant efforts to ensure school-aged Syrian refugee children have enrolled in school, but poor transportation, child labour, violence in schools and other issues have resulted in a 61.6% enrolment rate of school-aged Syrian refugee children.
KPIs	• Enrolment rate for Syrian refugees for Basic and Secondary Education. • Percentage of school principals, educational counsellors and teachers who have received training in providing appropriate psychological and educational support to Syrian refugees. • Percentage of out-of-school children enrolled in IFE and NFE programmes (disaggregate by gender, age, location etc.).
Risks and Mitigations	• Risk: lack of financial support from the international community to help Jordan fund this global public good (education of Syrian refugees). Mitigation: Seek further grant funding and support from international community to fund the education of Syrian refugees. • Risk: Increasing debt burden as a result of having to fund a large share of the cost directly, including through taking loans from international financial institutions (even at concessional rates) Mitigation: Seek long term funding commitments from donor countries that share the burden fairly and spread the debt over a suitable period of time.
Phase of Implementation	Phase 1

[82] MoPIC, 2016.

Project Title	B&SE1.5: Expand national-level General Equivalency Diploma system to cover all out-of-school children and youth
Objectives	Integrate NFE into MoE's strategic plans, accredit MoE schools for NFE implementation and develop Human Resources for NFE.
Activities	• Reform legislation to enable the certification of NFE to enter the Tawjihi stream and the accreditation of schools that offer NFE. • Increase NFE accredited schools in every district with high numbers of OOS children and youth. • Develop NFE curriculum in line with international best practice. • Establish effective monitoring and evaluation system to enable continuous improvement in provision and quality. • Provide financial support for infrastructure, manpower and projects specific to NFE. • Establish decentralised, district-level NFE governance structure to supervise NFE and address technical issues. • Strengthen the responsiveness to youth through establishing adult-youth partnerships and increasing participation and leadership of youth in their learning process. • Increase enrolment through outreach to gain family and community support. • Provide training to NFE facilitators on Participatory Learning Methodology (PLM) and the NFE curriculum. • Develop a recognised diploma for facilitators and establish recognition, awards and revised remuneration as incentives for facilitators. • Develop opportunities for ongoing learning among NFE facilitators through communities of practice. • Develop online teaching courses and teaching material to enable community members to provide informal education in addition to formal education, or where formal education is unavailable in the short term.
Responsibilities	• MoE • Schools • NGOs
Current Status	The MOE currently runs a 24-month NFE programme that offers alternative education for children/youth in Jordan who do not meet requirements to be part of the formal education system, i.e. have been out of school for over 3 years. Between 2003 and 2016, more than 13,000 young people enrolled in this NFE programme and more than 500 MoE teachers received training as NFE facilitators for the programme. This NFE programme was evaluated by the University of Oxford Centre for Evidence-Based Interventions, which revealed that it had a significant impact on reducing aggressive behaviours and conduct problems, and an increase in self-efficacy and social skills. Mobile schools are currently being assessed on a national and international level, such as the Pilosio Building Peace (2014) supported by the Save the Children and Relief International. This project has been implemented in Za'tari camp and in the Queen Rania Park.
KPIs	• Government recognition and support of NFE as a GED system. • Establishment of a specialised NFE department. • Section of education budget allocated to NFE.

	• Percentage of OOS children graduated from NFE (disaggregated by gender, special education needs or disability, location, age). • Percentage of NFE graduates that complete to Tawjihi level (disaggregated by gender, location, age, special education or disability etc.). • Number of qualified NFE facilitators. • Number of NFE-accredited schools (disaggregated by location, gender, school type i.e. basic/secondary etc.).
Risks and Mitigations	• Risk: Lack of capabilities at district level to manage implementation. Mitigation: Assess and develop district capabilities before delegation of NFE responsibilities.
Phase of Implementation	Phase 2

Project Title	**B&SE1.6: Improve school environments to ensure they are safe, nurturing and healthy**
Objectives	Ensure students can access education without risk to their health or safety, reduce the problems in school environments that deter school attendance, and use feeding programs to promote attendance.
Activities	• Expand the school feeding program and ensure it reaches the students that need it most. • Prohibit discrimination, violence, corporal punishment and promote inclusion in class for all students. • Improve reporting and consequences for violence both towards teachers and students. • Trainings and manuals for teachers on effective discipline focused on ensuring students remain engaged in their learning. • Improve water, sanitation, and hygiene facilities and ensure they are safe and inclusive, to allow all children to attend school. • Ensure that students are safe on the way to and from school (addressing harassment, etc.).
Responsibilities	• MOE • Local NGOs • Donors
Current Status	63% of public schools report inadequate heating/cooling and lighting[83]. School violence, discrimination, and harassment were pervasive problems among refugees, children with special needs and in male schools[84]. Many refugee children who dropped out of formal schools reported leaving school after experiencing harassment[85].
KPIs	• Number of children reporting feeling unsafe at or on the way to school. (Disaggregated by: gender, location, school type, and other data where possible).

[83] OECD, PISA 2012

[84] UNICEF, 2015; NCHRD, 2014; Ryder, 2001

[85] UNICEF, 2015

	• Number of trainings offered to MoE staff on alternative disciplinary measures. • Number of children receiving food through the feeding program. (Disaggregated by: sex, location, nationality, refugee status, socioeconomic status).
Risks and Mitigations	• Risk: Lack of data available to target feeding program. Mitigation: Utilise National Unified Registry to inform persons who are most in need. • Risk: Lack of willingness to report and record cases of violence. Mitigation: Establish effective reporting processes Train all staff in how to identify and report violence in schools.
Phase of Implementation	Phase 1

B&SE2a: Quality – Modernise the curriculum and assessment framework through establishing an independent body

Project Title	**B&SE2a.1: Establish an independent Curriculum and Assessment Centre**
Objectives	Establish an independent body that introduces curriculum and assessment policies and reforms Pre-primary, Basic and Secondary curriculum to ensure learning materials and exams are brought up to date with current national needs and international best practice.

Activities	• Establish the independent curriculum and assessment body which carries out the following functions but is not limited to them:
	  ○ Develop rigorous, relevant learning standards and revise the curriculum and assessment framework and policies to enable future improvement, with the MoE's Curriculum and Assessment Departments assuming an advisory role.
	  ○ Develop a framework for civic education to coordinate between education institutions and media to help build national and cultural values and identity.
	  ○ Outsource the development of textbooks, with the MoE's Curriculum and Assessment Departments assuming an advisory role.

Responsibilities	• The Curriculum and Assessment Centre to lead on creating the new curriculum and assessment framework and engage qualified curriculum experts to develop the new curriculum and assessment system. • MoE to inform the curriculum and assessment framework and be responsible for implementation of the new curriculum and assessment.
Current Status	The Curricula and Textbooks Directorate within the MoE develops all aspects of the curriculum and textbooks for Basic and Secondary levels.
KPIs	• International/regional test scores (e.g. PISA, TIMSS, EGRA and

	EGMA).
Risks and Mitigations	• Risk: The new curriculum and assessment framework does not result in substantive change to the curriculum and assessment system Mitigation: Outsource the development of the curriculum and assessment system to a qualified third party specialised in curriculum and assessment development.
Phase of Implementation	Phase 1

Project Title	**B&SE2a.2: Modernise the Basic and Secondary Curriculum**
Objectives	Develop a curriculum that focuses on the applications of knowledge, rather than the recall of facts, with a thoughtful sequence of expectations based on developmental learning progressions within and across domains. The curriculum should instil Jordan's national values and provide students the skills and knowledge required to succeed in work and life.
Activities	• Develop curriculum framework and policies for Basic and Secondary Education (along with nursery and KG – see ECED Section). • Contract a qualified external curriculum expert body to develop a new curriculum under the framework set by the Centre and in line with international best practice and Jordanian national values. • Outsource the development of textbooks and teacher guides to qualified professional curriculum development organisations. • Introduce the new curriculum in phases (e.g. roll out curricula for grades 1, 5, and 9 in phase 1;grades KG1, 2, 6, and 10 in phase 2; grades KG2, 3, 7 and 11 in phase 3; and grades 4, 8, and 12 phase 4).
Responsibilities	• Curriculum and Assessment Centre to develop the new curriculum. • MoE to ensure curriculum is implemented effectively in schools.
Current Status	The schools' curricula rely on rote learning and traditional pedagogies and delivery techniques. The subject material is often outdated.
KPIs	• International/regional test scores (e.g. PISA, TIMSS, EGRA, EGMA) • Independent expert reviews verify that the quality of textbooks is radically improved with strong clear messaging around national values like tolerance and the role of women in society.

Risks and Mitigations	• Risk: The new curriculum is not successfully implemented at school level.
	Mitigations:
	  ○ Provide adequate training and teacher aides on teaching the curriculum.
	  ○ EQAU to ensure schools implement new curriculum effectively.

Phase of Implementation	Phase 2

Project Title	B&SE2a.3: Modernise and align Tawjihi and other key assessments
Objectives	Develop an assessment system that is both formative and summative and accurately measures the progression and performance of each cohort between Grades 1-12. The assessment process culminates in a matriculation process that provides an accurate indication of performance and capability of individuals to direct them to further education or employment.
Activities	• Develop assessment framework and policies for Basic and Secondary Education. • Contract qualified external curriculum and assessment experts to develop a new assessment system for Basic and Secondary Education under the framework set by the Centre and in line with international best practice and Jordanian national values. • Ensure all assessments at Basic and Secondary level align to enable the Centre to accurately track and measure the development of the system and the individual students within it at each stage of their education. • Involve multiple stakeholders including private sector leaders to ensure assessments align with the skills and knowledge required in life and work. • Introduce new assessments in phases, leaving sufficient time after introduction of curricula for teachers and students to adapt, and implement new Tawjihi assessment only after students have had several years to adapt to the new curricula (in year five or later). • Evaluate the feasibility of electronic tests in the educational assessment process in various stages: pre and constructivist (formative) and final (summative) assessments. • Introduce a screening system to identify students who need early intervention for literacy and numeracy. • Coordinate with MoE and other testing entities to ensure tests are properly administered and data is reliable. • Introduce a student feedback system which allows students to set goals for themselves, measure their improvement and take ownership for their academic and social development.
Responsibilities	• New Curriculum and Assessment Centre • MoE's Testing Directorate • NCHRD to conduct international assessments (e.g. PISA and TIMSS) used to compare Jordan with other countries, and selected studies on key issues like classroom teaching practices.
Current Status	Assessments are uncoordinated and do not effectively measure a broad range of skills and knowledge. In Tawjihi, the weight given to information retrieval is 68%, with communications skills weighted 25%, leaving only 7% for problem solving and critical thinking[86]. The system is too heavily dependent on the Tawjihi exam, which has a very low pass rate (41% in 2015[87]) and an uneven distribution of results resulting in only 510 students scoring between 50% and 60% in 2015[88]. The low pass rate restricts the successful transition of students from Secondary Education to

[86] Obeidat and Dawani, 2014.

[87] MoE, 2015a.

[88] MoE, 2015a.

	Tertiary Education for the majority of students.
KPIs	• Global, regional and national benchmark targets for students cohort performance in assessments (to be set by the Curriculum and Assessment Centre). • A student assessment results distribution that matches international best practice (e.g. a bell curve). • Surveys show stakeholders (parents, educators, private sector) believe new assessments reflect the skills students need in work and life.
Risks and Mitigations	• Risk: Students are not prepared to take the new assessments when they are first introduced. Mitigation: Both curricula and assessment will be introduced in phases, leaving students and teachers sufficient time to prepare for new assessments.
Phase of Implementation	Phase 2

B&SE2b: Quality – Improve the quality of workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training

Project Title	**B&SE2b.1: Reform admissions process at universities for fields related to education**
Objectives	Make teaching an aspirational profession that attracts and appoints high calibre applicants.
Activities	• Raise admissions criteria for students pursuing undergraduate studies related to education. • Include passion for teaching as a criteria to be assessed during the application process. • Offer teaching scholarships for teacher education programmes to attract the best students into the profession. • Reinstate the 'Field Teacher' track in B.Ed. programmes, ensuring high quality of provision. • Increase practicum components of B.Ed. programmes (e.g. the number of credit hours allocated for field work at schools).
Responsibilities	• Ministry of Higher Education and Scientific Research (MoHESR) to consult with universities to raise entry requirements. • QRTA (new Initial Teacher Education Programme) • Universities.
Current Status	The average Tawjihi score of candidates accepted to the teaching profession was 65% in 2010 (the minimum score for admission to the public university system). In contrast, a minimum score of 85% is required for admission into the faculties of medicine and dentistry, and 80% for faculties of pharmacy and engineering across the country's leading universities.
KPIs	• New teacher admission's criteria set at universities is in line with elite professions to ensure only the most qualified students enter the teaching profession.

	• Increase in the average Tawjihi score of teachers entering B.Ed. programmes. • Average Tawjihi score of teachers entering QRTA Initial Teacher Education Programme.
Risks and Mitigations	• Risk: A reduction in the stream of new teachers that results in a shortage in supply. Mitigation: Raise the admissions criteria in phases to ensure the stream remains constant.
Phase of Implementation	Phase 1

Project Title	**B&SE2b.2: Improve teachers' selection process**
Objectives	Establish a competency-based recruitment process for teachers and school leaders.
Activities	• Increase the basic entry standards required to become a teacher to improve the quality of accepted applicants and the prestige of the profession. • Set a higher Tawjihi and undergraduate minimum grade requirement (75% and 'very good') for applications at the CSB. • Rebalance selection criteria to emphasise applicant qualifications, aptitude, motivation, knowledge and experience. • Ensure that interviews are conducted in every hiring cycle at the CSB. • Introduce QRTA's ITE certification as a pre-requisite for the teaching profession. • Explore the feasibility of a Teach for Jordan programme that could attract high performing graduates into the teaching profession.
Responsibilities	• CSB • MoE
Current Status	All public sector teachers are recruited through the CSB process with the following application criteria weighting; 9% for post-secondary grade, 9% for Tawjihi score, 28% for graduation year, 19% for application year, 19% for CSB examination (content based), and 9% for interview. 47% of MoE teachers surveyed said they became a teacher because it was either 'the best option available to them' or for 'lack of a better option'[89].
KPIs	• An application system that contains weighted criteria that matches international best practices. • Average Tawjihi score for new teachers. • Majority of new teachers cite a passion for teaching as a primary reason for joining the profession.
Risks and Mitigations	• Risks: Shortage of teachers because some applicants no longer qualify to become a teacher as they do not meet the increased standards. Mitigation: Raise the entry requirements in phases and ensure enough

[89] QRF, 2014.

	applicants meet the target to match demand for new teachers.
Phase of Implementation	Phase 2 – New systems, services, regulations. Phase 3 – ITE certification as pre-requisite.
Project Title	**B&SE2b.3: Establish an Initial Teacher Education Programme**
Objectives	Offer a postgraduate professional diploma, with a heavy practical component which would run for 12 months, affiliated with the University of Jordan and approved/accredited through the MoHESR.
Activities	• Establish a standards' steering committee to create the teacher training programmes, and recruit faculty and staff members. • MoE and QRTA to set standards for teacher competencies and values, and set standards for initial courses. • Establish online portal to provide access to high quality content, enable collaboration between Student Teachers and Teacher Educators, and eventually expand this portal to all teachers in Jordan for in-service training. • After initial pilot year, gradually increase the size of each cohort to 3,500 annually.
Responsibilities	• MoE and QRTA to set standards for teacher competencies and values and standards for initial teacher education. • QRTA to manage the Initial Teacher Education Programme, in coordination with the MoE and a university partner. • MoHESR to accredit the professional diploma offered.
Current Status	There are currently two pathways into the teaching profession: • An undergraduate pathway leading to a BA in education, followed by entering teaching via the CSB and receiving a brief MoE-provided induction training. • A subject BA degree (e.g. Maths), followed by entering teaching via the CSB and receiving a brief MoE-provided induction training. In practice, 28% of public teachers and 44% of private teachers reported they did not receive any induction training before they started teaching and only about a quarter received pre-service training that was longer than two months.
KPIs	• Establish the programme. • Percentage of new teachers entering the profession that are trained and certified. • Percentage of all teachers in Jordan that are trained and certified.

Risks and Mitigations	• Risks:
	  ○ Existing teachers are opposed to the introduction of the programme and a licencing system as it threatens their jobs.
	  ○ The new teacher selection process would shift from ordinary employment procedures in the public sector, which would require further political support.
	Mitigations:
	  ○ Provide in-school assessment of existing teachers to see which already meet the required standards.
	  ○ Provide in-service training for existing teachers who wish to

	attain reach the required standards. ○ Negotiate with key stakeholders and lobby for support from both the MoE and the CSB.
Phase of Implementation	Phase 1
Project Title	**B&SE2b.4: Develop comprehensive in-service teacher training**
Objectives	Enhance the skills, knowledge and effectiveness of in service teachers. Enable existing teachers to acquire qualifications matching standards developed for the new ITE programme.
Activities	• Enhance the MoE's Managing Directorate of Supervisor and Educational Training to play a stronger strategic and coordinating role, to ensure that all trainings meet quality standards and to guide training providers towards the areas of greatest need in Jordan (e.g. inclusive education, psychosocial support, pedagogy for improved literacy and numeracy, etc.). • Establish in-service training standards aligned with the principles of pre-service standards developed for the new ITE programme to enable veteran teachers to acquire matching qualifications. • Introduce an in-service training framework to provide regular, easily accessible training programmes to enhance teacher professional development. • Provide differentiated training programmes for teachers in refugee camps and host communities. • Provide training and manuals for teachers on effective discipline techniques that keeps students engaged in their learning. • Develop training centres in the three regions in collaboration with local universities. • Design coaching/mentoring training programmes for educational supervisors to be more effective in training and developing teachers. High performing teachers should be encouraged to adopt supervisory/mentoring roles to share their knowledge and best practice.
Responsibilities	• MoE • In-service training providers
Current Status	Training and development is meant to be incorporated into a teacher's schedule but in reality only 43% of public teachers and 29% of private teachers have received training in the past two years. Non-profit initiatives like QRTA and JEI have been very successful in introducing in-service teacher training schemes at a local level (reaching less than 5% of teachers), while the USAID's RAMP programme has reached teachers at a larger scale. However, this training is not spearheaded by any one department within the MoE, resulting in possible duplications or misinformation about training within the Ministry itself. Furthermore, the training provided is still collectively insufficient to meet national needs.
KPIs	• A minimum of 15 in-service education and training days per year for all teachers. Teachers should be surveyed and assessed before and after

	training sessions and programmes to measure the effectiveness of training sessions. Reflection sessions should be conducted after training programmes to review what participants have learnt and how the programme could be improved. • Percentage of teachers reporting that they received in-service training in the last two years in a survey. • School inspections show an increase in teachers' application of new pedagogies.
Risks and Mitigations	• Risk: Teachers do not engage with training programmes and do not implement the skills and knowledge they are taught in these sessions Mitigation: Include training attendance, learning and implementation of skills in teachers' appraisal and CPD framework.
Phase of Implementation	Phase 1

B&SE3: Accountability – Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry)

Project Title	**B&SE3.1: Introduce a teacher certification and licencing system**
Objectives	Ensure baseline quality standards for teaching are maintained. Raise the prestige of the teaching profession.
Activities	• Establish teacher certification and licensure systems in alignment with the new ITE programme standards and in consultation with qualified experts. • Introduce the teacher certification system by certifying graduates of the new ITE programme. • Once the certification system has been introduced to ITE programme graduates, require existing teachers to become certified through qualified in-service training programmes (see B&SE2b.4), with reasonable timelines for veteran teachers. • Establish a licensure system that requires certified teachers to sit for a competency-based exam to be able to practice, with reasonable timelines for veteran teachers. • Introduce a re-licensure process in alignment with a CPD Framework (based on the 2010 Teacher Policy Framework and aligned with ITE standards) requiring teachers to complete specific approved trainings to maintain their license. • Coordinate with the EQAU and Private Education Directorate to ensure teachers at all schools have proper certification and licensure along timelines set by the MoE.
Responsibilities	• MoE and QRTA ITE programme to set standards for teacher certification and licensure and develop licensure exam. • CSB to set new pre-requisites for entry to teaching profession and adjust contracts to align with re-licensure requirements. • MoE EQAU and Private Education Directorate to ensure compliance with certification and licensure timelines.

Current Status	There is currently no licencing system for teachers. There are currently two pathways into the teaching profession: • An undergraduate pathway leading to a BA in education, followed by entering teaching via the CSB and receiving a brief MoE-provided induction training. • A subject BA degree (e.g. Maths), followed by entering teaching via the CSB and receiving a brief MoE-provided induction training. There is a lack of incentives for teachers to attend training and professional development programmes (please see project B&SE3.4 for further details).
KPIs	• Percentage of new teachers entering the profession that are certified and licensed. • Percentage of all teachers in Jordan that are certified and licensed.
Risks and Mitigations	• Risk: Existing teachers are antagonistic towards the introduction of a certification and licencing system as it threatens their job security Mitigation: Allow existing teachers a variety of opportunities to complete certification and a reasonable timeline to attain licensure.
Phase of Implementation	Phase 2 – New systems, services, regulations.

Project Title	**B&SE3.2: Devolve more responsibilities to the Field Directorate and school level**
Objectives	Devolve power to schools and field directorates to enable the MoE to focus on strategies and driving improvements.
Activities	• Restructure MoE to focus on policy development while Field Directorates manage operations in the field and support school evaluation and self-improvement. • Develop a transition plan to define interim structures until changes are complete and capabilities needed have been fully assessed and which clearly define roles and responsibilities. • Finalise the administrative arrangements for the operationalisation of the EQAU (see B&S 3.5) to ensure accountability measures support effective decentralisation. • Map out all the available financial resources at MoE Central, FD and school levels, and develop a decentralised long-term financial model for continuous school based development. • Review the feasibility of reallocating existing school-related budgets from MoE or FD level to schools, particularly the existing budgets for professional support and development. • Secure the long-term predictable financial sustainability of the School Development and Improvement Programme (SDIP). • Distribute and integrate the provision of sufficient annual school Block Grants into the MoE regular budget (using Global Affairs Canada budget support funds) in the 2017 budget. • Build the capacity of schools councils and education development councils regarding community-based resource mobilisation for school improvement. • Communicate all changes to all stakeholders.

Responsibilities	• MoE and HRD Results and Effectiveness Unit (see IMP1.2 in Section 7 of the Strategy).
Current Status	The SDDP and SDIP were developed by the MoE, with Canadian$ 25 million in technical and financial support from the SDIP. The project aims at prioritising the exact needs of each school. The success of these projects has seen 3,567 schools and 42 FDs receive capacity development in school-based planning and development, meaning all schools in the Kingdom now have school improvement capacity. In addition, 265 Education Councils and 35 Education Development Councils are now in place. Plans to reorganise and realign the organisational structure of the MoE are ongoing. Revised job descriptions have been developed for several MDs. A plan to consolidate maintenance and administrative functions in new educational districts (to be established) while allowing the FD offices to focus on educational supervision and pedagogical support is still under discussion. The EQAU, which will also oversee the private sector, was officially recognised in January 2016, and arrangements for its staffing and leadership are underway. MoE plans to amend the Education Law No. 3/1994 to define the selection and accountability procedures for how supervisors, principals, and field directors are selected and held accountable, in addition to how schools are established.
KPIs	• Clearly defined transition plan with milestones established
Risks and Mitigations	• Risk: Authority is devolved to institutions without the appropriate capabilities to take over the new responsibilities assigned to them. Mitigation: The transition plan should include a detailed skills assessment and talent development project, with accountability ensured by the EQAU. • Risk: Lack of continuity in priorities due to change at Minister level Mitigation: The HRD Strategy Commission should support this initiative to ensure that plans are carried out according to the agreed timescales.
Phase of Implementation	Phase 1 – Begin implementation, Phase 3: Roll out system-wide reforms.

Project Title	**B&SE3.3: Introduce a school leader certification and licencing system**
Objectives	Ensure school leaders have required knowledge and experience and are properly trained and qualified to support teaching and learning.
Activities	• Establish school leadership standards and a school leadership competency exam, building on the 2010 Framework of Leadership Standards and with input from qualified experts. • Once school leadership standards have been introduced, require teachers who are promoted to school leadership positions to sit for the school leadership competency exam to be licensed as principals. • Require veteran principals to complete specific qualified trainings and sit for the competency exam to attain licensure, within reasonable timelines. • Introduce a re-licensure process for principals in alignment with a CPD

	Framework (based on the 2010 Framework of Leadership Standards) requiring principals to complete specific approved trainings to maintain their licence . • Sustain SDIP to continue capacity building of school leaders. • Introduce formative leadership development programmes into all teachers' development plans. • Revise the criteria upon which education supervisors, principals and superintendents are appointed (building on the 2010 Framework of Leadership Standards). New criteria should reflect an applicant's experience, aptitude and qualifications rather than experience alone.
Responsibilities	• MoE • QRTA • CSB
Current Status	There is currently no licencing system for school leaders. Appointment to leadership positions is based heavily on time in service rather than individual performance and capability.
KPIs	• Percentage of school leaders who have achieved certification and licensure. • Number of school principals promoted based on new criteria and selection process.
Risks and Mitigations	• Risk: School leaders oppose the introduction of assessments and a licencing system. Mitigation: Consult school leaders in the development of the assessments and licencing system and introduce incentives for those who achieve certification.
Phase of Implementation	Phase 2

Project Title	**B&SE3.4: Revise the teacher ranking system and appraisal process**
Objectives	Increase teacher motivation, aspiration and performance through developing clear career paths based on performance and results and that is supported with effective incentive schemes.

Activities	• Review the effectiveness of the MoE's teacher appraisal and career path system.
	• Train school leaders to better evaluate teachers and support instructional improvement.
	• Include teachers' and students' performance, training days attended and development targets met in the appraisals' process.
	• Clarify teacher roles and responsibilities at each rank.
	• Review opportunities, the feasibility and potential impact of introducing performance related pay schemes.
	• Review the effectiveness of the current system to incentivise high quality teachers to work in schools in target areas. Additional options could include:
	  ○ Strengthen teacher award programmes that recognise excelling teachers and educators.
	  ○ Improve financial incentives to encourage teachers to teach in

	schools in target areas. ○ Ensure the availability of better quality accommodation options for relocated teachers. ○ Offer teachers free transportation to and from schools in targeted areas.
Responsibilities	• MoE • CSB
Current Status	• Appraisals are focused on completion of textbook rather than effective teaching strategies. • Career progression is nominally linked to KPIs like performance, training and results but this is not comprehensive (i.e. compensation is only linked to training on an ad hoc basis as with the ICDL) and is not widely implemented. • There is currently no link between remunerations and performance.
KPIs	• There is a suitable distribution of staff across each of the nine ranks and staff progress through the ranks on a frequent basis. • Percentage of teachers who progressed to the First and Special Categories. • Percentage of teachers employing Student-Centred Active Learning and Teaching (SCALT) in their teaching, as reported in NCHRD observation reports.
Risks and Mitigations	• Risk: Teachers and teacher representatives oppose the changes to the appraisal and grading process. Mitigation: Consult teachers and their representatives and school leaders in any changes to the grading and appraisal system. • Risk: School leaders lack the capability to conduct reliable and useful teacher appraisals. Mitigation: Provide adequate training for school leaders on effective performance monitoring and appraisal processes. • Risk: A lack of data relating to teacher performance restricts the system's ability to monitor performance effectively. Mitigation: Develop the data collection and management capability within the system (see project B&SE3.6 for details).
Phase of Implementation	Phase 1

Project Title	**B&SE3.5: Leverage MoE accountability structures to drive public and private school quality**
Objectives	Leverage the EQAU (for public schools) and improve the Private Education Directorate (for private schools) to ensure quality standards are upheld in all schools in Jordan and that teaching and learning adheres to the Curriculum and Assessment Framework.
Activities	Public schools: • Develop EQAU inspection criteria that include teaching quality, adherence to national curriculum guidelines, learning environment (for example, safety and violence). • Ensure rigorous follow-up process through EQAU to ensure

	recommendations have been implemented. • Establish a special unit within the EQAU tasked with improving the worst performing schools. • Introduce a school licencing system for public schools. Private schools: • Digitise Private Education Directorate's current paper-based tracking system to enable a more efficient central database tracking key information like inspection results outstanding fines, teacher qualifications, and tuition at all schools. • Coordinate with the MoL to ensure that private schools that violate labour laws are not re-licensed. • Ensure the private school by- law is implemented and that it: a) protects families from unregulated annual increases in tuition fees, b) protects teachers from exploitation, and c) physical environment adheres to national health standards. Both public and private schools: • Review feasibility and impacts of publishing inspection reports on all schools to inform parents and the community. • Review feasibility and impacts of ranking schools according to inspection scores/results.
Responsibilities	• MoE, other ministries (MoH, Ministry of Finance [MoF], MoL, etc.) and relevant NGOs and civil society organisations to develop inspection criteria for teaching quality and adherence to the national curriculum guidelines. • MoE to ensure effective implementation of EQAU and improvement of Private Schools Inspectorate.
Current Status	Schools are inspected by the MoH, MoE, MoL and MoF. These inspections are not currently coordinated effectively. Inspection quality is inconsistent and the inspection criteria focus more on infrastructure issues than teaching quality and adherence to the curriculum. Inspections are rarely followed up to ensure schools implement the recommendations made by the inspection. No information is made available to neither the public nor parents on school inspection. The MoE established the EQAU in January 2016, and arrangement for its staffing and leadership are underway. The Unit is tasked with increasing accountability throughout the public system and ensure baseline qualities are maintained.
KPIs	• Percentage of schools measured 'good' or better according to the inspection criteria. • Information on all schools' performance is publicly available online and streamlined (in the long term). • Private schools with labour violations are not licensed, and international reports (e.g. ILO reports) demonstrate that private schools are paying teachers fairly.
Risks and Mitigations	• Risk: High number of schools that are unable to meet quality standards. Mitigation: Provide schools a suitable period of time to allow them to make the changes required to meeting quality standards; provide financial management training to private school owners to help them

	meet their bottom line while paying teachers fairly.
Phase of Implementation	Phase 2

Project Title	**B&SE3.6: Improve data quality and usage to aid accountability and improvement**
Objectives	Further develop the EMIS so it supports data driven decision making processes and allows for the publication of key indicators to ensure transparency and accountability. Data is used to inform policy and improvements in teaching and learning at all levels (central MoE, FDs, schools, community-based organisations [CBOs], and NGOs, etc.).
Activities	• Operationalise the new EMIS to support data driven decision making. • Maintain effective data collection at the school level that feeds into EMIS. • Produce annual reports on students literacy and numeracy performance at governorate levels. • Set system improvement targets based on three benchmarks. • National improvement targets. • Performance relative to selected comparator countries. • Performance relative to global benchmarks and rankings. • Provide ongoing training for teachers, school leaders, and officials in using the new EMIS for decision making and ensuring effective data collection. • Grant access accounts to EMIS dashboards that display the key statistics and findings from the EMIS system, tailored to each relevant MoE function area and stakeholder group.
Responsibilities	• Queen Rania Centre for Information Technology and Managing Directorate of Educational Planning and Research. • Ministry of Information & Communications Technology (MoICT). • School teachers and principals. • FDs. • Donor and International Organisations.
Current Status	The importance of strengthening data systems and the use of data to drive decision making has been an integral part of the ERfKE I and II reforms, whereby Eduwave – a Learning Management System (LMS) was introduced in 2003. Eduwave remains in use today, mainly as an LMS, however it proved to be a rigid system. Since 2007 the MoE has been developing an EMIS which is flexible with data allowing for the extraction, analysis, and visualisation of data to support decision making at multiple levels. Training for teachers, principals and FD staff is underway and will continue for at least another year under the support of UNESCO. A number of staff at the directorate level were provided with Training of Trainers (TOT) courses to allow them to train other MoE staff to use the system and ensure the validity and reliability of data. The construction of an open source version of EMIS began in 2009 and is expected to be fully operational by the end of the 2016 scholastic year.
KPIs	• Proportion of teachers and ministry staff trained in how to use the

	EMIS effectively. • Number of Dashboards developed to act as interfaces for the system.
Risks and Mitigations	• Risk: Teachers and MoE staff do not input data and use the system effectively. Mitigation: Provide extensive training for teachers and MoE staff on how to use the system and how it will benefit the system and them. • Risk: Weak internet connectivity compromises the ability of staff and schools to enter data consistently. Mitigation: Improve schools internet connectivity (see BS&E4.3 for details).
Phase of Implementation	Phase 1

B&SE4: Innovation – Use innovation and technology to leverage change in schools

Project Title	**B&SE4.1: Explore innovative financial mechanisms to accelerate improvements in provision and quality**
Objectives	Use innovative financial mechanisms to expand formal and non-formal provision of education.
Activities	• Conduct a review into the suitability of introducing new funding mechanisms like Social/Development Impact Bonds and new Public-Private Partnerships (PPPs) models (see Section 7 for details) in Jordan.
Responsibilities	• MoE to work with the Higher Council for PPPs to review opportunities to utilise new financial mechanisms to expand provision of education in Jordan.
Current Status	The legislation to establish the processes and procedures to implement PPPs has been completed. A Higher Council for PPPs, headed by the Prime Minister has been created to identify partnership opportunities. The Central Bank is due to announce the creation of development bonds. *Jordan 2025* identified Education Services as one of the ten clusters of related and supporting industries that are well placed to lead the national effort of upgrading the sophistication of our economy and positioning Jordan as a hub of trade and investment in our region. Utilising new financial mechanisms to maximise investment in education will be important in supporting the expansion of the cluster.
KPIs	• Private sector investment in education.
Risks and Mitigations	• Risk: There is considerable cost and complexity in arranging the deals Mitigation: Consult with international expert on the best way to broker these deals. • Risk: The MoE is unaware of the full extent of the inherent contingent liability they are exposed to through the potential future public payment obligation to the private party in the project. Mitigation: Conduct proper due-diligence and consultation with relevant

	experts.
Phase of Implementation	Phase 1

Project Title	**B&SE4.2: Stimulate growth in high quality private provision**
Objectives	Increase access to and quality of private schools in Jordan.
Activities	• Review the opportunity to incentivise new private provision in targeted areas through tax incentives and other mechanisms. These incentives should be linked to schools contributing towards Jordan's strategic objectives. For example, incentives could mandate that private schools offer a minimum number of scholarships to disadvantaged and/or less affluent students. • Review the feasibility and impact of introducing a targeted voucher programme to fund high-need students with limited access to adequate public schools to attend private schools. • Adopt and endorse the governing legislations for private and international educational institutions in cooperation with the Private Schools Owners Union and other educational stakeholders. • Design programmes to support entrepreneurs, especially women, to establish new and innovative private schools. • Provide trainings for private school leaders to help them with financial management, growth, and running their schools more efficiently and sustainably.
Responsibilities	• MoE • MoF
Current Status	Twenty percent of schools in Basic and Secondary Education are private and, in general, these schools outperform those in the public sector. There is a small selection of private schools (less than 5%) that offer international renowned curriculum and assessment system and perform well against international benchmarks. However, the majority of private schools are small institutions, and many owners lack financial management skills to sustain and grow their businesses. Furthermore, these businesses are required to pay a number of taxes despite identification of Education Services as a key economic growth sector. *Jordan 2025* identified Education Services as one of the ten clusters of related and supporting industries that are well placed to lead the national effort of upgrading the sophistication of our economy and positioning Jordan as a hub of trade and investment in our region. Expanding high quality, private education provision will be crucial to achieving this.
KPIs	• Number of private schools which meet quality standards. • Number of new private schools in high need areas. • Number of schools run by internationally renowned providers. • Number of scholarships offered to students from low-income backgrounds. • Number of private schools participating in a targeted voucher programme.
Risks and	• Risk: The public perceive the new private schools as only benefitting

Mitigations	affluent families who can afford the fees. Mitigation: require providers to provide assisted places schemes (e.g. scholarships) to children from low socio-economic backgrounds. • Risk: Rapid expansion of private provision could have negative implications for equity in education in Jordan Mitigations: ○ Conduct regular studies to assess the impact of the growth of the private sector and revise policies if necessary. ○ Ensure tax and other policies promote expansion of private provision in targeted areas. ○ Require providers to provide assisted places schemes (e.g. scholarships) to children from low socio-economic backgrounds.
Phase of Implementation	Phase 1

Project Title	**B&SE4.3: Strengthen the use of technology to modernise teaching and learning**
Objectives	Integrate technology fully into schools and use as a tool to facilitate a high standard of teaching and learning.
Activities	• Refine and implement the new national ICT education strategy developed by MoE and MoICT with the support of the Jordan Education Initiative. • Develop the technological infrastructure in schools, with particular focus on ensuring all schools have access to suitable internet connectivity. This should include conducting a definitive survey of broadband speeds in schools and clear NBN rollout plans to schools. • Update computer labs and other devices in all schools to enhance the teaching and learning process in alignment with the new national ICT education strategy. • Develop a clear vision for integrating technology into education which supports the MoE's vision for teaching and learning and curricular framework, and provide resources to translate this vision to the classroom level: ○ Develop a set of use-cases for ICT based on modern teaching approaches designed to identify where labs or class based/mobile technology is preferable. ○ Develop a dynamic and interactive e-content system aligned with national textbooks which allows for ongoing revision and addition of resources, with adequate technological hardware and teacher support to ensure its success. ○ Develop short illustrative videos demonstrating effective use of ICT in Jordanian classrooms. • Develop and execute a follow-up and evaluation framework to measure the efficiency of integration and exploitation of the technology in all aspects of education including curriculum, student learning, teacher training, assessment and data management. • Institutionalise cooperation between related public and private entities in the ICT sector.

	• Provide schools with IT assistants to support ICT functions and maintenance. • Develop needs assessment tools to identify further training needed by teachers, principals and supervisors, and follow with consistent training • Explore potential of appointing ICT coordinators in schools to support teachers in schools to develop their skills with ICT and to integrate ICT in teaching and learning, as well as management and administration.
Responsibilities	• MoE, MoICT, and JEI in partnership with private sector corporations.
Current Status	Previous schools ICT programmes have focused on unit delivery on ICT technology (e.g. number of computers/computer labs in each school) rather than using technology to enhance the quality of education delivered; this technology is poorly maintained and trainings have been ineffective at ensuring real integration in the classroom. There have been successful new initiatives such as JEI, but these have not been scaled beyond a few hundred schools.
KPIs	• Funding secured for the new ICT strategy for education. • Percentage of public schools are connected to the internet and have sufficient bandwidth. • Percentage of teachers trained in using technology to enhance learning. • Observational studies to monitor the effective integration of technology are conducted every 3 years. • Percentage of students saying they use the internet and other technologies in school.
Impacts and Mitigations	• Risk: Resources are focused on delivering a large number of technology units rather than integrating technology into education Mitigation: Consult wide range of stakeholders, including teachers, CBOs and the private sector in developing the ICT strategy to ensure it addresses the key requirements. • Risk: The vision and importance of ICT is not internalised at all levels and teachers return from trainings to find an unsupportive school environment for using technology in the classroom Mitigation: Ensure mechanisms for translating the vision for integrating technology in teaching and learning are in place (trainings, illustrative materials, resources, etc.) in parallel with delivery of devices.
Phase of Implementation	Phase 1- Begin implementation, Phase 3 – Roll out system-wide reforms.

B&SE5: Mindset – Mobilise families and parents to support learning at home and in schools

Project Title	B&SE5.1: Mobilise families and parents to support learning at home
Objectives	Change the mind-set and behaviour among parents and the community by increasing public understanding of Basic and Secondary Education and the critical role they play in the development process.
Activities	• Launch a campaign employing a range of engagement methods including mass and social media and technology to inform and advise parents on how they can help their child develop and learn. • Identify a spokesperson to act as a champion for the programme. • Implement the parental questionnaire option in the PISA survey to evaluate the levels of parent involvement and assess the relationship of parental involvement with cognitive and non-cognitive outcomes of students.
Responsibilities	• Donor agencies and MoE will design and develop a campaign delivered in collaboration with existing initiatives, e.g., 'We Love Reading' and 'Hikayat Simsim'.
Current Status	Statistics on the proportion of parents who regularly read to their children is low, even when compared to similar countries in the region. More than 40% of Jordanian mothers with children under five do not read to their children even though children of mothers who read to them are four times more likely to recognise more than 10 Arabic letters by the age of five[90]. This is a trend that continues into Basic and Secondary Education. Two-thirds of public school parents do not discuss their child's behaviour or progress with their teachers, and this is also true for more than half of parents with children at private schools in Jordan[91]. Nearly 60% of students across all sectors in Jordan report having fewer than 25 books at home, and one-third of public school students report having fewer than 10 books at home[92].
KPIs	• Percentages of families with children in Basic and Secondary Education reached by parenting campaigns. • Percentage of parents who read to their children on a regular basis. • Improved awareness of key issues and perception of importance and responses as measured through a survey. • Jordan's results for the parent involvement option in the PISA survey compared to the 14 other countries that took part in the 2009 survey.
Risks and Mitigations	Ensure inclusion of refugees and disadvantaged groups – no adverse impacts anticipated.
Phase of Implementation	Phase 1

[90] QRF, 2016.

[91] OECD, PISA 2012.

[92] OECD, PISA 2012.

Project Title	B&SE5.2: Mobilise families and parents to support learning in schools
Objectives	Increase the level of parental involvement in schools. Families and the community should feel agency and be able to guide their local schools to meet their needs. Improve the relationship between parents, teachers and schools to ensure a united and coordinated approach in the education of children. Make schools the hub of the community. Use violence prevention strategies to target families and engage communities in developing solutions and curbing violence.
Activities	• Strengthen existing school committees. • Evaluate the feasibility of establishing new involvement mechanisms such as PTAs and school boards with parental representation. • Establish a national body for parents to voice their thoughts, ideas and concerns. • Open schools in evenings and on weekends for community activities. • Conduct school climate surveys with parents and students to allow for challenges to be identified and locally addressed.
Responsibilities	• MoE to initiate and coordinate the process with local engagement.
Current Status	School committees have been formed to mobilise funds to support local schools as part of the ERfKE II SDDP programme. These committees started in 2007 and were funded by the Community Education Development Association (CEDA) to help decentralise authority in the provision of education. Committee members include parents, students, teachers and representatives from the relevant directorate. Teachers cite student and parent engagement as their top professional challenge after salary. PISA surveys demonstrate low levels of parental involvement in schools. Media reports of violence between teachers and parents and students suggest a highly antagonistic relationship between schools and families.
KPIs	• Number of schools with parent involvement in committees (or other governing mechanisms). • Public perception of influence and usefulness of groups measured through surveys. • Hours-per-month where schools are used for community activities.
Risks and Mitigations	• Risk: Parental frustrations could lead to unproductive interactions with schools. Mitigation: Consult parents in school decisions and the efforts that are being made to improve the quality of education their children receive.
Phase of Implementation	Phase 1

5

TECHNICAL AND VOCATIONAL EDUCATION

5 TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

5.1 Section Summary

Technical and Vocational Education and Training (TVET) systems across the world play a crucial role in developing highly skilled craftsmen and technicians who help the economy to grow. Revitalising TVET is essential at this juncture in Jordan's development. Job creation will increasingly have to come from the micro, small, and medium sized enterprises making up the bulk of Jordan's private sector, which will require a steady stream of literate, numerate, critical thinkers who are well qualified, and enterprising technical and vocational graduates.

In Jordan the bulk of TVET provision is delivered through the following routes: Secondary vocational education (grades 11-12) under the Ministry of Education (MoE); Technical Education and Training as offered by Community Colleges (grades 13-14) at Al-Balqa' Applied University (BAU); and Non-formal and vocational training by the Vocational Training Centres (VTCs). These routes deal mainly with only initial training. Non-state TVET provision is delivered through enterprise-based training (in both formal and informal enterprises), private Community Colleges, and for-profit or donor sponsored training providers.

The following positive developments in Jordan's TVET sector are worth highlighting:

- The importance of prioritising TVET has been recognised in key national plans such as *Jordan 2025* and the *National Employment Strategy*
- The Ministry of Labour (MoL) supported the establishment of Model Skill Centres of Excellence (MSCoE) for vocational training in the form of public private partnerships which can provide a foundation for future efforts
- Recognition that national level TVET governance is critical (even while the right approach has not yet been implemented).

However, TVET in Jordan faces challenges which must be addressed to help the system do what it is meant to. These include:

Access: **Not enough students pursue TVET and there are not consistent pathways which encourage and help them progress to higher levels of training.** Low and declining TVET enrolment rates in both secondary and tertiary level TVET. Only about 14% of students choose to enrol in the vocational stream at the secondary school level (grades 11-12). At the post-secondary level, enrolment in Community Colleges has seen recent decline. Limited pathways hinder students from progressing from different types of TVET to others, especially to higher levels of training.

Quality: **The private sector does not play a big enough role in TVET, training levels and industry experience are insufficient for TVET instructors and funding is not sufficient.** The private sector is largely disengaged with TVET. There is no consistent participation in curriculum development, involvement in TVET trainee and staff placements, contribution to a skills development fund, and a worryingly low level of interest shown in investing in training their own employees. Only 3% of firms offer formal training in Jordan – the second lowest rate in the world[1]. There are no consistent standards for TVET trainers, and crucially no requirements to spend time in the industries in which they provide training. Low levels of public funding are not disbursed efficiently which further compounds these issues.

[1] World Bank Enterprise Surveys: Jordan 2013.

Accountability: **There is not one entity that sets priorities and standards for TVET and there is an absence of reliable data to drive and inform decision making.** This is despite repeated (and failed) attempts over more than 15 years to adequately coordinate the key stakeholders in the TVET sector, mainly the Ministries of Education, Labour, and Higher Education and Scientific Research.

Innovation: **New approaches are needed to increase and make better use of funding and to expand access through new and interesting programme delivery approaches.**

Mindset: **TVET is not recognised as a pathway to success and prosperity. Being a TVET trainee and TVET teacher are considered to be of low social status.**

Vision of the Committee

In response to these challenges, the Committee has designed a range of projects with the goal that, by 2025, Jordan must substantially increase the number of youth and adults who have relevant technical and vocational skills for employment, decent jobs and entrepreneurship. Achieving this means changing this stigma towards TVET and moving towards making the sector offer world class skills that can enhance the country's job market and economy.

To achieve this goal, five strategic objectives were set[2]:

(1) **Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET education:** By, for example approving a national qualifications framework (NQF) to enable easier movement within the training system, developing degree-level TVET programmes with qualifications that offer equal pay for TVET Graduates, and licencing for craftsmen and technicians.

(2) **Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector:** By, for example establishing standards and training requirements for TVET trainers/instructors, introducing an accreditation and grading system for all TVET trainers, improving the accreditation and quality assurance approach for TVET providers, and aligning TVET provision to the priority sectors outlined in the *National Employment Strategy* and *Jordan 2025*.

(3) **Put in place clear governance structures to ensure accountability across the sector:** By designing and establishing a new independent TVET coordination entity led by the private sector.

(4) **Diversifying the source of funding to TVET, including encouraging more Public-Private Partnerships (PPPs), and improving the use of funds in ways that can incentivise positive change in the system**: By establishing a private sector-led Skills Development Fund to replace the current E-TVET Fund (with funding coming, in part, from a new training levy for enterprises), establishing new PPPs aligned with priority clusters identified in *Jordan 2025*, and expanding apprenticeship programmes.

(5) **Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system**: By improving school-based careers guidance and exposure to design and technology in schools, Jordan's participation in world class skills competitions, and reforming the current tracking system in the MoE so that participation in the vocational education stream is de-linked from low scholastic achievement.

Success in achieving these aims will be evaluated through the use of the Key Performance Indicators (KPIs). The following KPIs are regarded as high-level results KPIs, which can be widely communicated and which give an overall sense of reform progress:

- Percentage of employers 'Satisfied' or 'Very Satisfied' with the skills and abilities of labour market entrants holding TVET certificates

[2] Detailed recommendations and projects are listed at the end of the TVET section.

- Participation rates in TVET by agency as a percentage of all participants of education/training
- Percentage of TVET graduates employed / self-employed / in further education and training nine months after completing training
- Percentage of firms offering formal training
- The establishment and impact of a Skills Development Corporation (SDC) to oversee the sector.

5.2 Overview of TVET

At its broadest level, TVET refers to the broad range of learning experiences and skills development that prepare people for the world of work. TVET provision can be formal, non-formal and informal, with technical and vocational knowledge and skills acquired from basic to advanced levels across a wide range of institutional, work and community settings.

Public provision of TVET in Jordan is delivered through four key routes that deal mainly with initial training:

- Secondary vocational education (grades 11-12) in four paths: Industrial, agricultural, hospitality and home economics as part of upper secondary education under the MoE
- Technical Education and Training as offered by Community Colleges (grades 13-14) under the aegis of BAU.
- Non formal and vocational training delivered by the VTCs.

Non-public and public-private provision is delivered through:

- Enterprise based training (in both formal and informal enterprises)
- Private Community Colleges, for-profit non-formal training, and donor sponsored training.
- Training for the construction industry under the National Employment Training Company (NET) – a PPP between the Jordanian Armed Forces, the MoL, and the private sector.

Figure 5.1 below outlines the entry and exit points within the existing TVET system[3]. TVET transitions are then situated in the context of the broader education system in Figure 5.2.

Figure 5.1: TVET in relation to the labour market

The Committee believes it is important to understand TVET not just as a standalone subsector of education provision, but as one integrated and progressive set of pathways through the system into working life. Figure 5.2 shows that TVET provision is just one part of this journey by situating it in the context of the human resource development (HRD) system in its entirety. The red arrows indicate transitions specific to TVET, while the green arrows show transitions through the other subsystems. Appreciation and enjoyment of practical problem solving should start in schools, and similarly, higher level knowledge and training for vocation careers should extend into the higher education (HE) system.

[3] This diagram was part of an early draft of the *Jordan National E-TVET Strategy 2014 to 2020*. Enrolment data was updated, based on communication with officials in BAU, MOE, MOHESR, NET, VTC (January 2016).

Figure 5.2: TVET transitions within the HRD system

5.3 Global Best Practice

At the beginning of the twenty-first century, demography, urbanisation, globalisation, technological, and macroeconomic crises brought about considerable employment challenges for many nations. New occupations and new technologies in existing fields demanded different skills and competencies and TVET systems were called upon to respond to these needs. Since then, TVET has been under the spotlight, largely because of its role in improving competitiveness for East Asian countries and its continuing importance in Organisation for Economic Co-operation and Development (OECD) countries.

A range of approaches to delivering effective TVET exist in developed and developing countries across the globe, and to that end, a USAID-funded Education Development Centre study[4] concluded that the most effective programmes shared nine common characteristics:

- **Leadership and accountability:** TVET improves the economic condition of the individual, and subsequently the economy. Stakeholders are accountable through the values, principles and procedures instilled in the system
- **Demand-driven design:** The degree to which the TVET system is aligned with labour market demands
- **Open access:** Which looks for a balance between high stakes to improve motivation and lower barriers to entry and exit so that the greatest number of people can participate
- **Portability of skills:** Skills can cross geographic, as well as job specific boundaries
- **Continuous improvement:** The use of internal assessments, external evaluations, and other continuous improvement practices
- **Public-private partnerships:** Which bring private and public sector stakeholders together as social and financial partners

[4] USAID, 2011.

- **Sustainable financing:** Which links multiple, flexible financing to sustainability over time
- **Replicability:** Examining the degree to which a TVET project can be replicated - either domestically or internationally
- **Economic and social impact of the project, programme or system:** Which examines the degree to which the programme contributes to economic growth, helps build democratic process, and contributes to the environment.

The Committee has been particularly impressed by the specific models incorporating these principles employed by Denmark, Germany and the UK. The dual system model in use in Germany and Denmark consists of strong public-private collaboration; where enterprises finance apprenticeship training and state agencies finance the TVET schools, with industry responsible for driving systems and standards, and both employers and employees responsible for developing programmes and qualifications. In the UK example of a liberal market economy model (also seen in Australia), TVET and its supply reflect the demands of the private market led by industries and employers. Sector Skills Councils (SSCs) set occupational standards that industry and support firms need to train their workers to achieve. Under this model, governments (a) fund necessary research on occupational and industry demands for skills and (b) establish skills councils and national qualifications frameworks.

Of course when considering the elements of successful systems that may be appropriate as part of a National HRD Strategy for Jordan, any proposed approach must be placed and assessed with the nuances of the Kingdom's national context in mind. Developing economies tend not to have the enabling conditions to support the system that other, more developed countries enjoy. The next Section of this document will assess Jordan’s current state in order to identify the most appropriate focus areas for transformation of the sector.

5.4 Desired Outcomes for TVET in the Strategy

The vision for TVET is driven by the outcomes sought for the five key stakeholder groups affected by this area in the national education and skills system; the Kingdom, Employers, Students, Parents and the Community, and TVET Trainers themselves:

Figure 5.3: Desired outcomes for TVET in the Strategy

FOR THE KINGDOM:

- The TVET sector is acknowledged as a key driver of economic development in Jordan and is seen as the engine of the nation's prosperity
- TVET provision is aligned with and supports national employment and labour market strategies and national growth priorities
- TVET provision meets international quality standards and prepares students for employment nationally, regionally or internationally
- There are clear pathways in place whereby those entering or already in the workforce, and those who are unemployed can benefit from TVET provision and progress their careers

FOR STUDENTS:

- TVET provision fully prepares students for employment through a focus on practical experience, entrepreneurialism and skills fully aligned to the needs of the economy
- Guidance and advice is made available to students from an early age to enthuse them for career opportunities afforded by a TVET path
- TVET is delivered by high quality trainers with practical experience and using up to date equipment
- TVET paths are highly sought after, with clear progression through the education system and career opportunities thereafter

FOR EMPLOYERS:

- The provision of TVET in Jordan is fully aligned with and responsive to the evolving needs of employers, as articulated in the National Employment Strategy
- Employer input is actively sought and incorporated in TVET programme development
- The TVET sector delivers a steady stream of high quality employees with internationally recognised qualifications and relevant, practical training and skill sets
- Employers are supported in providing lifelong learning opportunities and development opportunities for their employees

FOR TVET TRAINERS:

- TVET teaching and training is a well-respected profession that attracts high calibre candidates
- TVET trainers are fully engaged with current industry practices and requirements and complete regular placements
- Trainers receive comprehensive pre and in-service training
- Trainers across all TVET provision have clear progression opportunities and are appropriately remunerated

FOR PARENTS AND THE COMMUNITY:

- The importance of TVET is recognised and technical and vocational career paths are accorded the same prestige as academic paths by the community.
- Parents are informed about TVET opportunities and career paths and encourage their children to consider these on a par with university paths
- The community recognises and celebrates the contribution that technical and vocational careers make to the local and national economy
- The standards of education and experience required from TVET tutors and training are recognised and respected across the community

5.5 The Current State of TVET Provision in Jordan

Jordan has implemented important improvements in its TVET provision over the last 15 years, and the institutional building blocks of a world-class TVET system are being put in place. Nonetheless, significant challenges remain to ensure that these measures are effective, and in tackling further key issues that undermine quality, innovation, access and accountability within the system. The current state of TVET provision is analysed below using the five strategic themes introduced in the Section 2 of this Strategy.

5.5.1 Access

Clear structures to access and progress through the TVET system will play a vital role in addressing the existing stigma associated with TVET, ensuring that the system develops skills to the highest standards, and in instilling within it the concept of lifelong learning – all hallmarks of successful TVET provision for the 21st century. The system as it stands serves to reinforce negative perceptions of TVET (covered in more detail under Section 5.5.5. Mindset) as a less appealing route and career path than an academic one.

Progression and pathways

Enrolment in the TVET sector is poor; at tertiary level there are 313,500 students studying at Jordanian universities, while only 20,500 students are enrolled in the Kingdom's public and private Community Colleges. At the secondary level, overall only 4%[5] of students are enrolled in vocational streams, and enrolment as a share of total secondary enrolment has fallen since 1999 (see Figure 5.4 below).

Figure 5.4: Enrolment in secondary TVET as a share of total secondary enrolment, 1999-2011[6]

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
%	7.8	7.7	–	7.5	6	6.1	5.2	5.2	4.9	4.2	–	3.5	3.6

Once in the system, there are limited opportunities to leverage training from entry-level TVET providers to higher levels of training or study. Entry and re-entry points through the system are not clearly articulated or promoted. As a result many students use TVET instead as a bridging mechanism or back-door entry route to university.

[5] UNESCO Institute for Statistics http://data.uis.unesco.org

[6] Ibid

At secondary level, poorly performing students are funnelled into TVET routes. The MoE's Vocational Education system starts after Grade 10, when students can choose between the Academic or the Vocational Tawjihi stream. Although students can choose a vocational track, the decision as to which stream a student chooses is based largely on Tawjihi marks (with only 14% of students choosing the vocational stream). Those students who do not pass the Grade 10 exam have no option but to go to a VTC if they wish to stay in formal education and training. There is no pathway from these centres to Community Colleges, and so for students who do not pass Tawjihi, there is no progression pathway to university.

In 2015, only 54.4% of students who took the Vocational Tawjihi passed the first time – prohibiting, or delaying, the remainder from pursuing a university degree. This is clearly a huge and unacceptable waste of talent, given the limited choice of opportunities provided for the remainder of students.

At post-secondary level, only about 25% of MoE vocational stream graduates are accepted into Community Colleges each year[7]. Of these, many use the Community College system as a second-chance bridge into universities, creating what the *National Employment Strategy* calls an 'inverted pyramid, such that Jordan graduates too many engineers and not enough engineering assistants'[8].

There is an additional TVET access issue related to increasing access to TVET for Syrians, in line with the Jordan Compact pledge made in February 2016 at the Supporting Syria & and the Region Conference.

Lifelong Learning

The idea of continuing professional and personal development (CPPD) after entering employment is not embedded in Jordan and further hinders progression opportunities in TVET. There is currently little evidence of short term focused training courses to encourage CPPD being developed or delivered. The absence of an NQF means that individuals do not have access to progression pathways after their initial qualifications.

5.5.2 Quality

Curriculum/provision

There are some fundamental mismatches between the skills required for 21st century employment and the outputs from the current TVET system, largely due to the lack of private sector and employer involvement in course design and delivery. This results in a supply driven system which delivers poor quality results with limited relevance at every level.

TVET provision is considered outdated, not 'applied' enough, and not providing the skills required by Jordanian employers. It does not place sufficient emphasis on preparing students for employment in a 21st century knowledge economy, which involves going beyond providing up-to-date technical competence, and also develops personal qualities of enterprise, networking and creativity. In terms of practical experience, there are not enough opportunities for applied learning, with apprenticeships and practical training mainly limited to the VTCs and not part of an overall approved progression framework. Finally, less than half of employers surveyed as part of the most recent *National Employment Strategy* were happy with the skill levels of new hires. Employers cannot differentiate between the levels of programmes delivered in a vocational school, a training institute, or a community college, and only 15% of Jordanian employers currently hire TVET trained labour[9].

As noted above, this skills mismatch is largely due to insufficient employer/private sector engagement in TVET design or delivery. Although there is high level agreement that employer engagement is important, this is not sufficiently translated into practice. With regard to provision, Jordan's companies rank among the lowest of Arab countries – and second lowest in the world - in terms of providing

[7] *National ETVET Strategy 2014 – 2020*.

[8] *National Employment Strategy*.

[9] Ibid.

training to their employees, and on the governance side, the private sector has limited involvement and influence on the various TVET policy boards where key decisions are made.

The lack of effective employer engagement in the shaping and delivery of TVET provision fuels a negative cycle whereby the poor expectation of employers are confirmed by shortcomings in delivery, whereas more effective engagement would grow a positive cycle of improved outputs from the system and greater employers satisfaction with it and willingness to engage. The diagram below, from a United Nations Educational, Scientific and Cultural Organisation (UNESCO) analysis, illustrates the two cycles:

Figure 5.5: Vicious and virtuous cycles in TVET

Source: UNESCO, 2015b

Part of the reason for the low levels of private sector participation can be explained by considering the composition and working of the Jordanian economy, which creates a number of challenges and barriers to employer involvement and the development of relevant programmes. These challenges include:

- **Limited capacity to engage:** Small enterprises (with fewer than 20 employees) account for 98% of all enterprises in Jordan and 37% of all employment in the private sector[10]. As a result of their size, these enterprises are largely focused on short-term interests and productivity, which limits their capacity and the perceived value of playing a role in the design of TVET programmes
- **Varied requirements and poor articulation of training needs:** Growing enterprises often have difficulty defining their emerging skills and training requirements, and their needs are often very particular and specific. It is therefore difficult to create meaningful and relevant general TVET programmes to supply these enterprises

[10] ETF, 2012.

- **Increased self-employment:** Since employment opportunities are not growing quickly enough to absorb all jobseekers, self-employment is one of the main paths into the labour market in Jordan, which requires different kinds of TVET courses designed to support micro businesses – building entrepreneurship, commercial awareness, etc.

Inadequate instructor and teacher training

A further factor influencing poor perceptions of the quality of TVET provision is that trainers themselves often do not have sufficient industry or technical experience. Training and teaching staff with expertise in both technical and pedagogical skills are key to a strong vocational institution. Although teachers and trainers in Jordan are mostly academically qualified (with the exception of the VTC where a World Bank Report showed that 47% have only secondary education qualifications or less), current hiring practices do not ensure that they also have sufficient technical and industry expertise and experience. The MoE and VTCs must recruit staff through the Civil Service Bureau (CSB), which does not recognise technical qualifications in its recruitment policies. As a result they often receive fresh graduates with inadequate industrial work experience. Once hired, staff have little incentive to improve or remain up to date with industry trends. The MoE directorate responsible for in-service training of teachers and instructors does not prioritise the training of vocational teachers. Indeed, at secondary schools level, no additional training is required to teach vocational subjects. The situation is similar in private Community Colleges where although instructors tend to be academically qualified, declining incomes due to poor demand mean that they cannot afford high quality technically qualified instructors.

Insufficient funding

The levels and distribution of funding for TVET have negative impacts on delivery and quality across the sector. TVET in Jordan is mainly publicly financed. In nominal terms, public funding for all TVET in Jordan is about JOD 63 million annually, or about 0.3% of GDP. This is five times less than observed international practice, for example both France and Australia, which spend the equivalent of more than five times (1.5-2.0% of GDP) than Jordan on TVET. Analysis by experts suggests[11], however that it is not only the levels of public funding available, but their management and distribution that create real quality issues across the sector.

Financial governance in the sector is weak, with no central body able to make disbursement decisions or set priorities for the sector as a whole. Each of the Ministries responsible for delivering TVET deals directly with the Ministry of Finance (MoF)/General Budget Department, and there is no results-based allocation of funding. Public funding continues even when training outcomes are poor and thus perpetuates supply-side low quality provision and structural inefficiencies. In high performing TVET systems, funding methods are typically used as a lever to enhance quality and alignment with national priorities, as illustrated in the UK example outlined below.

[11] *National E-TVET Strategy 2014 to 2020.*

Figure 5.6: Funding methods as a quality lever in TVET

Funding is used to influence quality and priorities as it:		
FOLLOWS THE INDIVIDUAL LEARNER	Training providers in the publicly funded sector submit strategic plans. In these they clearly identify the types of courses they intend to run and the numbers of learners they expect to recruit on these courses. The funding bodies will allocate funds on this basis once the plan is agreed	£
IS WITHDRAWN IF TARGETS ARE NOT MET	The learning provider will receive funds for the learner numbers that have been agreed and that actually enrol. If the learners are not successful on their course additional funding will also be withheld.	£
IS USED AS A POLICY LEVER TO DELIVER EDUCATIONAL STRATEGY	The government only funds those areas it sees as important and wishes to influence. Currrently in the UK this includes English and mathematics for 16 to 25 year olds and apprenticeships.	£

Source: British Council, 2015

Targeted national skills development funds are an increasingly common vehicle for financing TVET around the world. A 'skills development fund' is a stock or flow of financing outside normal government budgetary channels dedicated to developing productive work skills. The overall purpose of these funds is to raise the productivity, competitiveness and incomes of enterprises and individuals by providing them with needed skills.

Extra budgetary resource of this kind is potentially available in Jordan through the E-TVET Fund. The E-TVET Fund was established to encourage demand driven training initiatives in Jordan but its deployment has not been strategic, and the fund is not currently being used to support the whole sector. While the experience of similar funding schemes elsewhere has been to raise quality standards and efficiency of TVET provision, this has not been the case with the E-TVET Fund in Jordan.

The Jordanian E-TVET Fund is currently resourced from a percentage of fees collected from Foreign Workers' work permits (about JOD 20 million annually) and, more recently, by budget allocation from the MoF. As a result, those who contribute to the fund tend not to benefit from the training. A TVET fund was first set up in 2001 and was resourced by a 1% levy on private enterprise profits; over the subsequent years millions of JOD were collected by the levy but TVET disbursements were low and largely used to finance supply-side government training programmes instead of funding training identified by the private sector. The 1% levy was cancelled in 2010[12]. The cancellation was positively received by the private sector; a logical reaction since they were contributing but not seeing the benefit. However, this not only cut off a valuable stream of TVET financing, but also a means to increase private sector interest in TVET.

[12] UNESCO, 2015.

Further compounding the funding issue is the lack of a strategic framework for distributing the available funding or identifying where it is needed most. Administration of the E-TVET Fund has historically focused more on collecting the fees than on planning for their disbursement. Funds that do get disbursed tend to be unevenly allocated. The allocation of funding for infrastructure improvement for example, tends to go to VTC and NET institutions (which have comparatively better infrastructure and a better regional spread) at the expense of second level vocational schools or Community Colleges, as shown in Figure 5.7 below.

Figure 5.7 Allocation of E-TVET fund across beneficiaries 2005-2015 [13]

[13] Contact with the ETVET Fund Office, December 2015.

5.5.3 Accountability

Considering the wide range of stakeholders involved in TVET provision, strong systems of accountability are essential in shaping the priorities and behaviours of these actors to ensure effective provision. In the current Jordanian context, three main key elements require attention: governance, incentives, and control systems.

Governance

Chronic shortcomings of leadership and fragmented governance characterise the TVET sector in Jordan. TVET policies and provision involve various levels of government, multiple ministries, the private sector and a wide range of stakeholders. Aligning these interests demands effective coordinating structures of governance, a policy framework that incentivises cooperation, and strong leadership. Current governance arrangements do not meet this requirement. Despite TVET being a designated priority area by the government (as articulated in the *E-TVET Strategy 2014-2020* and the *National Employment Strategy*), and repeated high level attempts to foster a more collaborative and coordinated sector, planned reforms have been poorly (or often not) implemented and have failed to achieve long term results. As the *National Employment Strategy* states: 'The challenge is not so much the diversity of the providers, but rather the poor state of governance of the sector'[14].

Responsibilities for TVET policies rest with three different Ministries in Jordan. Responsibilities for design, delivery, financing, accreditation, certification and quality assurance are also split. A TVET council was formed in 2001 (renamed in 2007 as the E-TVET Council) to bring cohesion to the sector, but members' allegiances to the different ministries represented, rather than to the TVET system as a whole, have persisted, and as a result the E-TVET Council has not achieved its aims of acting as a coordinating entity that can drive a single national skills agenda that aligns all parties[15].

The E-TVET reforms proposed in the *National Employment Strategy* were to have been led by the MoL. This role has not been embraced and is still considered a bolt-on rather than a core component of the Ministry's work. This situation has been further compounded by a lack of consistent leadership within this Ministry – between 2008 and 2012 there were six different Ministers of Labour. Furthermore, since TVET is a cross-ministerial issue, it should not be led by one single Ministry – like the MoL, but by an effective entity that can align legislation, policies and provision.

Incentives

The terms on which funding is supplied provide powerful levers for improving accountability for effective use of those funds. However, public funding allocations to TVET providers are not based on results or outcomes, and budgets are allocated based on historical spending trends, which can perpetuate poor performance. Local accountability is also reduced by the highly centralised nature of the system. Individual public providers cannot make decisions on key issues due to their lack of autonomy from central ministries and agencies. Curricula, financial and personnel management, sector focus all tend to be centrally managed, and although public Community Colleges have slightly more autonomy than MoE schools and VTCs, they are far from self-managing. This situation hugely impacts the capacity and incentives for providers and institutions to adapt and improve.

Quality assurance, monitoring and evaluation

Accountability is further shaped and driven by regulatory controls, especially over the quality of the services and results provided. Quality assurance of TVET in Jordan is highly fragmented, with separate quality assurance processes and bodies in each of the three Ministries involved with TVET provision. Each has their own mechanisms for the collection of data, monitoring, and evaluation. The Centre for Accreditation and Quality Assurance (CAQA) was established as the national authority for the accreditation and qualification of TVET providers as well as trainees, but its main influence has

[14] *National Employment Strategy* 2010.

[15] ETF, 2014.

been confined to the areas of TVET governed by the MoL. Private institutes, vocational schools and BAU technical colleges remain subject to the different laws, regulations and standards applied by their respective Ministries (the MoE and the Ministry of Higher Education and Scientific Research [MoHESR]). In many countries, the private sector is heavily involved in these processes, but this is not the case in Jordan.

5.5.4 Innovation

The Committee believes that innovation should permeate the National HRD Strategy, and should not be confined to developing technological capability, but considered in the broader sense of finding new and better modes of delivery in governance and across the provision. In Jordan there is scope to develop this further.

Access to reliable labour market data limits TVET development

Labour Market Information Systems (LMIS) play a crucial role in enabling data based policies and decision making, and also in monitoring TVET graduate employability. In Jordan, data collection on TVET and related employment is fragmented, the data that is available is often outdated or inaccurate, and it is not used effectively.

As it stands, Labour Market information is gathered by a number of sources - Department of Statistics (DoS), the MoL, the Social Security Corporation (SSC), the CSB, the MoHESR, and the National Aid Fund (NAF). There is no central repository for this information. The data itself is often dated, and it does not exist in some fields, sectors and at governorate levels. The absence of a comprehensive coordinated and accurate LMIS prohibits development of the sector. There are also challenges in obtaining and maintaining reliable and consistent data on the sector as a whole.

Creating a self-sustaining TVET sector

As pressure on government funding continues, learning providers are increasingly looking for innovative ways to secure investments, generate income and reduce costs. The formation of PPPs has been identified as an innovative potential solution to this issue. There is potential to develop this further using other innovative financing methods, which when structured correctly also act as powerful quality and relevance levers.

5.5.5 Mindset

As in many other countries, a number of culturally engrained attitudes and mindsets have played a role in hindering the progress and development of a vibrant TVET sector. Jordanian society has traditionally undervalued TVET and the craft, technician and associate level careers that it supports. Career guidance in schools and the presentation of TVET through the media all serve to reinforce this mindset. The key underlying issues related to mindset are outlined below.

Negative perceptions of TVET

There is a clear preference among students and their families for academic university degrees in Jordan, irrespective of whether this route positively impacts employability or not. There is an engrained cultural stigma associated with the prospects and status of technical and vocational paths and qualifications, and current enrolment numbers clearly demonstrate this preference. Jordan has 41 public and private Community Colleges with 20,500 students enrolled. Within this, less than one-third of students are enrolled in technical programmes. Meanwhile there are 313,500 students studying in Jordanian universities[16].

As mentioned above, TVET is perceived as limiting progression and career opportunities, and as a lower calibre option than a university degree. The system as it currently operates reinforces this perception. Poorly performing academic students are funnelled into TVET, primary level curricula do

[16] Numbers taken from data in Figure 5.1: TVET in relation to the labour market.

not contain TVET related elements (these were removed during a government reform in 2014 where time allocated for vocational education was removed in an effort to focus on improving literacy and numeracy at early grades), and career counsellors do not champion TVET paths or receive training specific to technical and vocational education. This all reinforces perceptions that TVET is a dead end suited only for those that have failed on an academic track, with a distinct lack of understanding about what TVET-based careers can mean from a personal or financial point of view, and for the national economy.

5.6 Strategic Objectives

The Committee has identified five strategic objectives to address the key challenges faced and achieve the outcomes sought. These objectives emphasise developing TVET provision and increasing private sector involvement for the priority sectors and markets and objectives identified in *Jordan 2025* and the *National Employment Strategy*.

TVET1	Access – Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET education
TVET2	Quality – Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector
TVET3	Accountability – Put in place clear governance structures to ensure accountability across the sector
TVET4	Innovation – Innovate funding and provision in the sector through transforming the E-TVET Fund, PPPs, and expanding innovative modes of delivery
TVET5	Mindset – Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system

5.7 Projects required to achieve the outcomes sought

Set out below are the projects the Committee believes are required to achieve the outcomes sought.

Strategic Objective	Projects
TVET1: Access – Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET	TVET1.1: Approve the National Qualifications Framework (NQF) TVET1.2: Degree-level TVET programmes and provision TVET1.3: Equal pay for TVET Graduates TVET1.4: Licencing for craftsmen and technicians
TVET2: Quality – Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector	TVET2.1: Establish standards and training requirements for TVET trainers and instructors TVET2.2: Accreditation and grading system for all TVET trainers TVET2.3: Transfer the CAQA to the SDC TVET2.4: Align TVET provision to the *National Employment Strategy* and *Jordan 2025* goals
TVET3: Accountability – Put in place clear governance structures to ensure accountability across the sector	TVET3.1: Design and establish the SDC TVET3.2: Enforce/facilitate the use of data to inform policy and decisions
TVET4: Innovation – Innovate funding and provision in the sector through transforming the E-TVET Fund, PPPs, and expanding innovative modes of delivery	TVET4.1: Establish a private sector-led Skills Development Fund TVET4.2: Establish new PPPs aligned with priority clusters identified in *Jordan 2025* TVET4.3: Expand apprenticeship programmes
TVET5: Mindset – Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system	TVET5.1: School-based careers guidance and exposure to design and technology TVET5.2: Participation of Jordan in the WorldSkills competition TVET5.3: Reform the current tracking system for the MoE VET stream and delink VET from low scholastic achievement

TVET1: Access – Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET

Project Title	TVET1.1: Approve the National Qualifications Framework
Objectives	• Provide a basis of recognising equivalence between TVET and other academic and vocational qualifications • Ensure that qualification levels in Jordan match internationally recognised standards • Align vocational and academic pathways through secondary and tertiary education (see Figure 5.8 below for one purely illustrative example of a potential framework for such pathways – which needs to be developed further) • Facilitate employment, progression and mobility for TVET graduates at all levels, including overseas work opportunities
Activities	• Approve the draft NQF, for all vocational and technical education and training in the public and private sectors and civil society organisations • Identify appropriate policies to help direct students towards vocational study, which could include holding an exam around the time of grade 10, but will also involve activities in Strategic Objective TVET5 (see below) • This should include Prior Learning Assessment and Recognition and work-based learning • The NQF should be linked to the LMIS (See TVET 3.2)
Responsibilities	• As the NQF impacts also on schools and HE provision, it must be sponsored by the HRD Reform Board and developed through an alliance of the proposed oversight bodies for schools, HE and TVET
Current Status	• Proposals for a Jordanian NQF are in draft but have not been approved or integrated into practice. • The MoE has introduced a metric exam for students in the 9th grade to give students an initial indication of whether the academic track or vocational track would be more suitable for them. This exam could provide the basis for the alignment of secondary and tertiary academic and vocational paths.
KPIs	• NQF agreed and operating within 3 years • Gradual reduction in students pursuing the academic track by 2-3% and increasing students pursuing the vocational track by the same amount each year • Rebalance the ratio of MoE students (grades 11 and 12) pursuing academic vs. vocational tracks to 70%-30%, respectively, within the decade
Risks and mitigations	• The NQF has benefits for all stakeholders in TVET and the wider national education and skills system, with no adverse effects on current interests
Implementation Phase	• If possible, Phase 1 (Years 1-2), as the NQF underpins other reforms

Figure 5.8: Illustrative example of potential pathways for TVET

Project Title	TVET1.2: Degree-level TVET programmes and provision
Objectives	• Ensure that higher level pathways and progression opportunities are available to TVET candidates and their employers
Activities	• Expand HE-level TVET: establishing technical colleges within university facilities to provide technical education programmes • Create degree awarding Polytechnics to replace some Community Colleges as outlined in the Higher Education Law 2014
Responsibilities	• To be created and implemented by MoHESR and accountable to the SDC
Current Status	• Few degree-level TVET programmes – although engineering and other degrees are of course vocational and technical. Plans for new polytechnic provision are pending and may need to be amended before they can be approved by Parliament.
KPIs	• Numbers graduating from degree-level TVET programmes
Risks and mitigations	• Some possible displacement from current programmes, but should be in a context of growth in overall student and employer demand
Implementation Phase	• Phase 1 (Years 1-2) for pending proposals, Phase 2 (Years 2-4) for other new provision

Project Title	TVET1.3: Equal pay for TVET Graduates
Objectives	• Ensure that equivalent TVET qualifications are recognised on par with university qualifications in terms of labour market remuneration • Reduce negative perceptions of career opportunities for TVET graduates
Activities	• Amend CSB policies to recognise appropriate degree level TVET qualifications as equivalent to other university degrees and paid at the same rates
Responsibilities	• CSB, in co-operation with the SDC
Current Status	• Where TVET qualifications are accepted by the CSB, graduates earn less than other university graduates
KPIs	• Salary equivalence policies in place and being applied in practice
Risks and mitigations	• Implementation of this change will depend on the introduction of more degree level TVET programmes (see HE section) and also on NQF for equivalence of awards (see TVET 1.1)
Implementation Phase	• Phase 2 (Years 2-4) and beyond

Project Title	TVET1.4: Licencing for craftsmen and technicians
Objectives	• Increase attractiveness and prestige of TVET qualifications and careers • Raise quality level of provision and TVET graduates • Protect the market from unskilled workers who negatively affect the reputation of skilled ones (and TVET in general)
Activities	• Amend existing laws to make possession of a qualifications-based licence mandatory for practicing in specified craftsman and technician jobs • Expand scope of licencing at this level • Guiding those who fail their Tawjihi exam towards craft-based jobs and industrial sectors through vocational training courses (craftsmanship) for 3 months (minimum), after which the student is given an initial work licence
Responsibilities	• MoL, through the proposed National Employment Council (NEC) (see TVET2.4)
Current Status	• Some limited licencing of craftsman trades, not widely enforced
KPIs	• Percentage of practicing craftsmen and technicians in regulated trades who have been licenced
Risks and mitigations	• This change may require that non-Jordanian workers meet the standards set for licenced trades, to ensure equivalence with Jordanian workers
Implementation Phase	• Phase 2 (Years 2-4) or possibly Phase 3 (Years 3-6 and beyond)

TVET2: Quality – Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector

Project Title	TVET2.1: Establish standards and training requirements for TVET trainers and instructors
Objectives	• Ensure that TVET trainers retain up to date industry knowledge and experience • Ensure quality is preserved and maintained among existing trainers
Activities	• Establish a 'Teacher/Instructor Policy' for TVET providers that links HR career progression, paths, and salaries with in-service training requirements (including periodic secondment to industry workplaces) and staff development • Provide capacity building measures to enable the private sector to play a meaningful role in TVET provision • Strengthen the National Training of Trainers Institute (NTTI) to enable increased training provision
Responsibilities	• SDC, working through CAQA (to set and inspect staffing standards for providers)
Current Status	• Career progression is not linked with training - CAQA is working on developing instructor standards but has limited capacity
KPIs	• All registered TVET tutors and trainers (see TVET 4.2) to evidence minimum levels of CPPD each year
Risks and mitigations	• Possible adverse responses from under-qualified tutors and trainers, and from providers concerned about having to pay more for qualified trainers and their updating
Implementation Phase	• Phase 2 (Years 2-4) and beyond

Project Title	TVET2.2: Accreditation and grading system for all TVET trainers
Objectives	• Improve quality and status of TVET teaching in line with international practice and standards
Activities	• Design and specify expected qualifications and experiences of TVET tutor/instructors at different levels of seniority • Set up a national registration system whereby tutors can be recognised and accredited for their qualifications • Incorporate these requirements into the quality standards to be met by licenced/funded providers (i.e. that their trainers have the relevant qualifications)
Responsibilities	• SDC, working through CAQA
Current Status	• No systematic qualifications or accreditation systems for TVET tutors.
KPIs	• Proportions of TVET tutors accredited to the level they are working at; CAQA inspection findings
Risks and mitigations	• Most current TVET tutors will not meet future facing qualification standards, so the new arrangements must incorporate means of recognising experience and practice and also phase in the new regime
Implementation Phase	• Phase 2 (Years 2-4) and beyond

Project Title	TVET2.3: Transfer the CAQA to the SDC
Objectives	• Enable and ensure consistent quality standards across all TVET provision • Adopt international standards for TVET provision, assessment and awards • Encourage and support self-evaluation and continuous improvement among providers
Activities	• Transfer the CAQA to be overseen by the private sector-led SDC and amend related laws and regulations to ensure its quality assurance processes are applied across the TVET sector as a whole, including VTC institutes and private institutes under the MoL, vocational schools under the MoE, BAU technical colleges under the MoHESR, and any new entities created • Capacity building for CAQA management and staff
Responsibilities	• The proposed SDC should take the lead in negotiating and managing the transfer of CAQA responsibilities
Current Status	• This project involves the transfer and then the extension and expansion of the current roles of the CAQA, which does not currently apply across the whole sector due to a number of different quality assurance process in place in the different ministries responsible for TVET delivery
KPIs	• Set an early date for the transfer, as an early target for the new SDC
Risks and mitigations	• Possible resistance from MoL, to be reconciled via the HRD Reform Board

Implementation Phase	• Early in Phase 2 (Years 2-4), following from establishment of SDC

Project Title	**TVET2.4: Align TVET provision to the *National Employment Strategy* and *Jordan 2025* goals**
Objectives	• Repurpose the existing E-TVET Council to function as a NEC under the MoL and put in place a series of sector-based mechanisms that monitor the relevance of TVET provision, courses and programmes to sectoral and national priorities and evolving employer demand
Activities	• Amend the current E-TVET council law, so that it becomes a council for employment only and is responsible for drawing up the employment policies • Review and update the *National Employment Strategy* to ensure alignment with current employer needs. The NES should be the guiding framework of the MoL • Develop a range of new SSCs – employer led advisory committees covering skills and training needs for specific priority industries and sectors (including public services) • Strengthen the capacity of the private sector, including the Jordan Chambers of Industry and Commerce, to identify their own / their members' skill needs and develop training programmes / and provide them information on existing public and private training offerings • Establish a regular review cycle of all existing TVET programmes to ensure that graduates are equipped to work in a variety of roles aligned with employer requirements • Improve the relevance of TVET programmes, facilities, equipment, and materials in line with priority clusters identified in *Jordan 2025*
Responsibilities	• Proposed employment council • Proposed SDC (establishment of SSCs, review of all TVET programmes)
Current Status	• Existing activities under the E-TVET Council, no current sector-based agencies for assuring skills requirements and delivery
KPIs	• Early dates for establishment of NEC and proposed SSCs
Risks and mitigations	• MoL may need persuading of benefits of reconstituting the E-TVET Council, though they will retain responsibility for the *National Employment Strategy*
Implementation Phase	• Ideally within Phase 1 (Years 1-2), as NEC and SSCs are precursors for further reforms

TVET3: Accountability – Put in place clear governance structures to ensure accountability across the sector

Project Title	TVET3.1 Design and Establish the Skills Development Corporation
Objectives	Create a new employer-led public-private mechanism that is empowered to act as a single coordinating body for the TVET sector that is fully aligned with labour market strategies and requirements, and ensures accountable, responsive delivery. This mechanism will provide a legal and technical umbrella for the sector which will replace the current E-TVET Council. The broad remit of the Skills Development Corporation (SDC) should be to: • Mandate and harmonise all national skills and TVET policies for Jordan • Ensure alignment between TVET provision and national labour market strategies and requirements • Oversee/ direct the Centre for Accreditation and Quality Assurance (TVET 2.3) • Oversee/ direct the Skills Development Fund (see TVET 4.1) • Monitor and evaluate TVET reforms across all Ministries and private providers.
Activities	• Establishing the employer-led SDC will first entail defining the constitutional status and membership of the SDC and its relationships with other TVET agencies, councils, and Ministries • The relevant existing laws and regulations should be reviewed and amended to ensure that TVET policies and process put in place by the SDC supersede those of the Education Council and Higher Education Council, and individual Ministries involved in the delivery of TVET (including the MoL) • There should be a transparent selection and appointment process in place for members of the SDC; the SDC Board should be composed of a majority of private sector representation (ratio of two-thirds private sector to one third government representatives), with the chair rotating between members of the private sector on the SDC. Capacity building for private sector board members will be required • The SDC Board should be supported by a strong, independent, and resourced technical secretariat who provide analytical, administrative and policy advice to the SDC Board
Responsibilities	• Authority for establishing the SDC should come from the Cabinet, and the SDC would then be accountable to Government through the Council of Ministers
Current Status	• The proposed roles of the proposed SDC are currently divided between the E-TVET Council and different Ministries, with only limited co-ordination and alignment to national employment needs.
KPIs	• An early target date should be set for the SDC to be established and operational
Risks and mitigations	• Possible resistance from Ministries and their agencies with current TVET responsibilities, mitigated by assigning clear roles within the realigned TVET strategy, and through the set-up of an Employment Council for the MoL

Implementation Phase	• Phase 1 (Years 1-2) – establishing the SDC is a pre-requisite for further TVET reforms

Project Title	**TVET3.2: Enforce/facilitate the use of data to inform policy and decisions**
Objectives	• Provide the evidence basis for decision making at policy and institutional level • Better inform TVET decision making and the matching of the supply of skills with the demand for skills • Improve planning and monitoring and evaluation (M&E) across TVET reform programmes • Track and monitor spending efficiency of providers (e.g. cost per graduate; utilisation rates of TVET providers' space and resources etc.) • Ensure efficient use of resources by enabling the sharing of facilities and training centres
Activities	• Develop a centralised TVET and LMIS and associated KPIs to inform coordinated decision making, monitoring and evaluation across the sector. Information regarding student and employer experiences and outcomes should be gathered through surveys of learner experiences, employer satisfaction and graduate destinations conducted at regular pre-defined intervals. This LMIS should be aligned to the NQF • Mechanisms should be put in place to ensure this data is used as a basis for decision making and resource allocation. TVET data should feed into the Open EMIS
Responsibilities	• This should be an early priority for the new SDC
Current Status	• Various existing data sources are partial in coverage and poorly co-ordinated
KPIs	• A plan and timetable with target dates for new LMIS to be in place should be set by the SDC and monitored by the proposed National HRD Strategy Results and Effectiveness Unit
Risks and mitigations	• Implications for existing data collection agencies having to change systems
Implementation Phase	• Ideally during Phase 1 (Years 1-2), as data-based evidence is needed for well-informed TVET improvement initiatives

TVET4: Innovation – Innovate funding and provision in the sector through transforming the E-TVET Fund, PPPs, and expanding innovative modes of delivery

Project Title	TVET4.1: Establish a Private Sector-led Skills Development Fund
Objectives	• Increase funding available to the TVET sector • Ensure funding mechanisms positively influence quality and relevance of TVET provision • Ensure transparent, equitable and effective distribution of available funding with clear benefits for those contributing to the fund
Activities	• Repurpose and reassign responsibilities and regulations for current E-TVET Fund, and increase the capacity of fund staff and leadership • Maintain the current source of revenue for the E-TVET Fund (% allocation of foreign worker permit fee and direct allocation from MoF) • Reintroduce an enterprise levy (as recommended in the *Jordan E-TVET Strategy 2014-2020*) that has clear and transparent disbursement mechanisms for private companies to see benefit • Establish competitive funding mechanisms, so that resource allocations are increasingly based on results and focus on enhancing performance of providers • The fund should focus on driving TVET improvements in strategic priority sectors, and operate transparent funding disbursement windows including, as an illustration: grant mechanisms for private sector companies for re-imbursement of recognised employee training up to an agreed ceiling; competitive grants for industry and sector councils for members' training; competitive grants for public and private providers (including companies) to provide approved training to SMEs; competitive grants for TVET providers from MoE, MoL, and MoHESR and for private providers (with matching funding from private providers). Another grant window could be specifically aimed at enhancing TVET opportunities for Syrians in Jordan. Additionally/alternatively, each grant window could contain incentives if specific target groups are reached, including Syrians in Jordan
Responsibilities	• Transfer responsibility for E-TVET Fund to the new private sector-led SDC • If there is to be a Fund Board or committee to oversee allocation decisions, ensure that it is 2/3 private sector and chaired on a rotating basis by a private sector Board member • A significant proportion of the funding for TVET for Syrians should come from the international donor community
Current Status	• E-TVET Fund already exists but does not function effectively, with most resources used to fund MoL vocational training activities as well as the NET; other proposals have been explored and tried in the past but not currently applied.
KPIs	• Combined with LMIS proposals, it will be possible to set KPIs for value and effectiveness of TVET Funding in terms of student and employer outputs and outcomes
Risks and mitigations	• Resistance from MoL about losing control over the disbursement of funds via the E-TVET fund. Possible resistance from providers concerned about making funding conditional on results, and from employers averse to levy,

	both justified by reference to objectives and benefits of the Strategy
Implementation Phase	• Transfer of E-TVET Fund in Phase 1 (Years 1-2), new funding schemes piloted in Phase 1 and rolled out in Phase 2 (Years 2-4)

Project Title	**TVET4.2: Establish new PPPs aligned with priority clusters identified in *Jordan 2025***
Objectives	• Grow capacity and engage private sector in developing high quality, relevant provision • Establish specialised TVET institutes (centres of excellence)
Activities	• Establish a set of PPPs in the TVET sector whereby public TVET providers (VTCs, vocational schools, Community Colleges) and industry work collaboratively to develop effective training programmes with goals that meet industry needs. Such partnerships should be jointly planned, financed and implemented, with such PPPs linked to the priority clusters that have been identified in *Jordan 2025* • Decentralise the functioning of the VTCs according to the business, training and governance models previously created – so that they have greater autonomy to link to private sector partners and run TVET provision along more business lines • Capacity building for VTC, vocational school and community college management and key staff would be required • Review the legislation needed to stimulate private sector participation in PPPs
Responsibilities	• Sector based PPPs to be brokered by the proposed SSCs under the auspices of the SDC
Current Status	• Limited local instances of collaboration between industry and VTCs (through model 'Centres of Excellence') and industry and Community Colleges (e.g. Al Huson), which should be reviewed for lessons and models. Little collaboration between vocational schools and industry.
KPIs	• At least one PPP established for each priority sector within 3 years
Risks and mitigations	• No adverse effects for VTCs, vocational schools, community colleges or employers
Implementation Phase	• Phase 2 (Years 2-4), given time needed to set up SSCs and broker projects

Project Title	TVET4.3: Expand apprenticeship programmes
Objectives	• Increase the number of young people gaining practical qualifications and experience through work-based programmes
Activities	• Expand the programmes of apprenticeship, so that the training held in the worksite is an approved methodology • Adopt the draft national apprenticeship framework that is currently with Cabinet
Responsibilities	• The proposed NEC and MoL, working with the SDC and SSCs (for sector-based schemes)
Current Status	• Policies have been designed and are with Cabinet for approval
KPIs	• Numbers entering and graduating from apprenticeships
Risks and mitigations	• No negative impacts are foreseen, although securing sufficient employer placements and quality experiences is likely to be challenging
Implementation Phase	• Phase 1 (Years 1-2) – the plan is ready for launch

TVET5: Mindset – Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system

Project Title	TVET5.1: School-based careers guidance and exposure to design and technology
Objectives	• Attract more students into TVET study • Counteract misconceptions about career options available to TVET students • Ensure career counsellors are sufficiently informed to promote TVET pathways and associated career options
Activities	• Introduce 'design and technology' into schools to replace the two 'vocational education' classes currently taught from grade 4 • Develop new curriculum, teacher training and teacher guides • A holistic and mutually reinforcing approach focused on informing both parents and career guidance counsellors at the secondary level and throughout the TVET provision • Ensure parents and students are provided with information so they recognise the value and opportunities in vocational careers. Information to include detail on employment rate of graduates from different providers, starting salary information etc. • A mechanism should also be established to ensure that career counsellors are engaged with SSCs on a regular basis to enable them to give informed advice to students on employment routes and opportunities.
Responsibilities	• The SDC, with the SSCs with support from MoE, MoL and King Abdullah II Fund for Development (KAFD)
Current Status	• Career guidance counsellors at the secondary level are not well informed of TVET opportunities, and provision throughout TVET pathways is limited. • Vocational education is currently taught as a subject from grade four upwards (two classes a week). • KAFD launched a national employability portal, ForUs.jo, with a career guidance component, psychometric assessment and lifelong career guidance account suitable for school students and counsellors in May 2016.
KPIs	• Every school student to have individual career counselling in Year 10 and Year 12 • Design and technology is introduced from grade 4 (to replace 'vocational education') and as an examinable optional subject at Tawjihi (or assessment that replaces Tawjihi)
Risks and mitigations	• No adverse impacts are foreseen
Implementation Phase	• The project should be piloted in Phase 1 (Year 1-2) and rolled out (after evaluation) in Phase 2 (Years 2-4)

Project Title	TVET5.2: Participation of Jordan in the WorldSkills competition
Objectives	• Take part in skills competitions held around the world to showcase and inspire world-class excellence in skills and introduce youth to a variety of skilled careers
Activities	• Become a member of WorldSkills and plan to participate in the WorldSkills Competitions which take place every two years; the next will be held in Abu Dhabi in October 2017. • Hold national skills competitions in Jordan every two years, with the strongest participants going on to represent Jordan in the international competitions
Responsibilities	• Awareness to be raised and participation promoted by and through the newly formed SSCs
Current Status	• No participation
KPIs	• Participation during Phase 2
Risks and mitigations	• No anticipated risks
Implementation Phase	• Phase 1 (Years 1-2)

Project Title	TVET5.3: Reform the current tracking system for the MoE VET stream and delink VET from low scholastic achievement
Objectives	• Ensure that TVET be clearly perceived as focused on students' readiness for the job market and not as a dead end for those who fail academically
Activities	• Set minimum entry requirements for all TVET pathways • Design second-chance routes for youth to obtain minimum entry requirements to enter TVET • Design alternative training options for those unable to obtain minimum standards
Responsibilities	• MoE
Current Status	• At secondary level, poorly performing students are funnelled into TVET routes. • See TVET 1.1 - The MoE has implemented a 9th grade metric exam which should be reviewed for alignment with this objective.
KPIs	• Percentage grade 10 students selecting vocational stream as a first choice • Grade levels of vocational stream entrants
Risks and mitigations	• Need to ensure alternative and second-chance routes for those with low scholastic achievement
Implementation Phase	• Phase 1 (Years 1-2)

6

HIGHER EDUCATION

6 HIGHER EDUCATION

6.1 Section Summary

Despite a number of achievements during the development and reform of the Higher Education (HE) sector, recent years have witnessed a decline in the quality of university education and its outputs. Legislation is still unstable and does not meet the standards of a holistic university education system, nor does it address gaps or imbalances. Admission principles do not guarantee entry of academically suitable students who are able to fulfil the requirements of a university education. Furthermore, the decrease in financial support granted to public universities has exacerbated the challenges regarding the calibre of students, quality of faculty, and rigor of academics. At another level, there is a gap between university qualifications and labour market demands. Additionally, scientific research remains limited and is unable to present tangible results. Campus environments fail to promote positive interactions between faculty, staff, and students that involve dialogue, exchange of ideas, and collaboration on projects, and are not conducive to high levels of productivity and innovation.

Although the Jordanian HE system is relatively young with the establishment of its first university in 1962, the sector has nonetheless undergone significant growth and made distinct achievements:

- In a period of over 50 years, the increasing demand for university education and rising enrolment rates have led to a significant expansion in the sector. This is considered an achievement for the Jordanian economy[1]
- Higher education in Jordan has a good reputation in the region: the number of students from Arab countries in Jordanian universities is estimated at 42,000[2] in the academic year 2015/16[3]
- There have been significant changes in governance in the HE system. Amendments in laws relating to governance include the following:
    - unifying the laws of public and private universities under one law
    - establishing the Scientific Research Support Fund
    - establishing the Higher Education Accreditation Commission (HEAC).

The number of students enrolled at Jordanian universities has increased by 43% between 2005 and 2015 to reach approximately 313,000 students, with 275,000 students at the Bachelor's level[4]. However, this increase in student numbers has not been accompanied by an appropriate increase in the number of faculty members. On the contrary, emigration of faculty members abroad increased. Consequently, the student-to-faculty ratio at most public universities increased from 20 students per faculty member in the 1990s[5] to 41 students per faculty member in 2015[6]. The number of accepted students is expected to rise to more than 450,000 by 2025 due to a projected annual population growth rate of 2.3%.[7]

[1] UNESCO 2014

[2] MOHESR, 2015a

[3] MoHESR, 2015a

[4] MoHESR, 2015a

[5] MoHESR,1990

[6] MoHESR,2015a

[7] NCHRD, 2014

These pressures to expand HE to meet the increasing demand have led to dangerous imbalances that have hindered the system from performing its crucial role in supporting a modern knowledge-based economy. These challenges include:

Access: Many citizens do not have access to HE due to admissions policies and insufficient government financial support. Around 50% of students are admitted outside of the regular competitive admissions stream through exceptions and a parallel admissions programme[8]. The absence of equitable opportunities has raised objections to the system of admissions based on exceptions and the parallel programme. Additionally, government funding of HE is very low compared to countries of similar population size or national income level, and forms a small percentage of public universities' resources.[9] Therefore, universities are left to rely heavily on tuition fees and students are left to bear the burden of such costs.

Despite the clear evidence that most Jordanian families cannot afford these costs[10], current financial support mechanisms are not inclusive and only serve a minority of students. Both the parallel programme and the exceptions system have indirectly discouraged students from enrolling in Technical and Vocation Education and Training (TVET) as most prefer enrolling in universities, and these non-meritocratic routes into HE enable their access.

Quality: The system has yet to develop a formal mechanism to ensure that a stable university learning environment and educational standards—characterised by critical thinking, communication and cooperation, extracurricular enrichments, and positive interactions between students—are in place such that academic and skills outputs of HE match the needs of the labour market. Around 25% of university students reported in a survey that the educational and pedagogical ability of their professors was weak or completely ineffective, and another 50% found them to be "acceptable," with just 24% reporting their professors were "highly effective"[11]. Faculty members need more support to improve their pedagogical skills and integration of ICT in the classroom to serve a larger number of students. Lack of faculty support and training have led to inadequate educational outcomes, as well as a lack of competition among Jordanian universities, between Jordanian universities and other universities in the region, and between Jordanian universities and HE institutions around the world.

Accountability: There is not enough follow-up at the national or institutional level to ensure the implementation of policies or the optimal use of resources. In addition, legislation regulating the sector has been unstable across shifting governments, and policymakers have not been responsive to the need to review these in a comprehensive and adaptive way. At the national level, the absence of coordination, as well as efficient and regular follow-up between government institutions to ensure the application of laws and regulations as soon as they are passed has hindered the reform process of the HE sector. At universities, decision-making is highly centralised, leaving most of the authority over university matters to the President. Majors are designed and offered based on student demands rather than the needs of the Knowledge Economy, especially since universities heavily rely on student tuition fees for sustainability. Universities do not conduct evaluations to ensure that their outputs—in terms of knowledge and skills—are aligned with the needs of the labour market. They also fail to prepare reports that hold institutions accountable for weaknesses in their outputs or for directing parents and students towards choosing the most suitable majors for their individual success and for the benefit of the economy as a whole.

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[8] The parallel program allows students with lower grades (within the limited minimum average) to pay higher fees to access certain programs.

[9] MoHESR, 2015b

[10] World Bank, 2009

[11] UNDP, 2014

Innovation: The use of technology to raise teaching and learning standards has not been encouraged or integrated effectively in the curriculum and pedagogy at the HE level, and very few mechanisms are applied to support innovation in the sector. It is also important to point out that there is no national system that connects funding with innovation and creativity which could potentially induce universities to raise scientific research standards or to increase the influence of research on various areas of development. Such incentives would also encourage integration of e-learning, Open Educational Resources (OERs), and modern technologies within the university educational system.

Mindset: Progress in HE depends on a change in the attitudes and behaviours of students, academics, sector leaders and employers. Jordanians have historically demonstrated a preference for university degrees over technical and vocational qualifications, leading to 'too many engineers and not enough engineering assistants or surveyors; too many dentists and not enough dental assistants'[12].

In response to these challenges, the Committee has designed a range of projects with the goal that, **by 2025, Jordan will ensure fair access to affordable, relevant and quality university education opportunities.**

To achieve this goal, five strategic objectives were set: [13]

(1) **Ensure that admission opportunities are fair and equitable for all students** by transforming admissions to a merit-based process, gradually phasing out the parallel programme, and regulating exceptions. This also includes a foundation year that is mandatory for all students before being accepted into majors—to be applied initially in the faculties of medicine and dentistry, followed by other majors such as engineering and pharmacy in consecutive years. There should also be an increase in funding for students, along with career guidance and university orientation programmes.

(2) **Raise the standards of HE teaching and learning to those expected from the best modern universities**. Such standards could be achieved by committing to accreditation and quality assurance standards for professional programmes in faculties of medicine, dentistry, nursing, engineering, etc. Universities must also raise the quality and rigor of programmes and majors offered, as well as the teaching abilities of faculty members, with regular reports to track and evaluate teaching effectiveness.

(3) **Incentivise and encourage universities to take greater responsibility for making significant contributions to national economic and social goals**. This could be achieved by strengthening governance bodies and incentives for effective resource management.

(4) **Adopt international best practices and promote innovation in teaching and learning, including the integration of technology in the teaching process and ensuring students have access to technology**. A HE development and innovation fund should be established to promote continual innovation.

(5) **Instil stakeholder understanding of the national purposes and benefits of higher education, and promote informed engagement with the system**.

Success in achieving these aims will be evaluated through the use of Key Performance Indicators (KPIs). The following KPIs are regarded as high-level results KPIs, which can be widely communicated and which give an overall sense of reform progress:

- The percentage of students who have been accepted with scores lower than competitive Tawjihi (or equivalent) averages
- The percentage of undergraduate students with demonstrated need for funding who receive financial support

[12] *National Employment Strategy, 2011-2020*

[13] Detailed recommendations and projects are listed at the end of the HE section.

- The number of universities that meet accreditation quality assurance requirements set by the HEAC
- The number of universities that acquire international accreditation
- Unemployment rates of university graduates under 30 years old
- The percentage of government support that is conditional on the performance of academic programmes, their efficiency, and their suitability for the labour market and national economy as a whole.

6.2 Overview of Higher Education

Despite numerous achievements in the development of higher education in Jordan, recent years have witnessed a decline in quality of educational outputs in several aspects: legislation is not consistently enforced, and is not conducive to a holistic system that addresses weaknesses. For example, admissions policies do not guarantee entering students are sufficiently prepared, financial resources are inadequate to ensure quality, gaps remain between educational outputs and labour market needs, and scientific research is producing few tangible benefits for the national knowledge economy. University climates are not conducive to positive educational outcomes, as they currently they do not encourage students and faculty to modernise teaching and learning processes, engage in open dialogue, exchange new ideas, or foster critical thinking.

The Committee identified needed HE reforms in order to:

- Establish fair and equitable admissions opportunities for all qualified students based on merit and aptitude
- Raise the standards of HE teaching and learning to those expected from the best modern universities
- Raise scientific research quality to match international best practices and address national priorities
- Encourage universities to take greater responsibility for making significant contributions to national economic and social goals
- Ensure a learning environment that promotes innovation and excellence, and cultivates a culture of responsibility, respectful dialogue, fairness and national unity
- Integrate technology in higher education to raise and quality and relevance of educational outputs

6.3 Desired Outcomes for Higher Education in the Strategy

The Committee considers that Jordanian universities and HE providers' contribution to national goals should be directed towards the following outcomes for each stakeholder community – the Kingdom at large, students, employers, teaching faculty and families and communities:

Figure 6.1: Desired outcomes for HE in the Strategy

FOR THE KINGDOM:

- The HE system develops and grows the human, intellectual, and social capital of the economy and communities
- High graduate employment in industries and fields that have been identified as priorities for economic growth
- The HE system acts as a catalyst for innovation for the kingdom as a whole, fosters entrepreneurialism and develops relevant skills among its graduates.

FOR STUDENTS:

- Post secondary students have affordable access to a high quality HE system
- Students are supported and well informed about employability when making choices about post-secondary paths
- The HE system develops up to date technical skills as well as the range of transferable skills required for employment and employability in the 21st century

FOR EMPLOYERS:

- The HE system supports the development of a highly skilled and enterprising workforce
- Employers enjoy strong links with universities

FOR FACULTY:

- The HE system attracts and rewards academic talent and commitment to learning
- Faculty are supported to focus on delivery of high quality teaching rather than overburdened with administrative duties
- Faculty are encouraged to play a role in institutional leadership

FOR PARENTS AND THE COMMUNITY:

- University tuition fees are affordable and mechanisms are in place to support students
- Universities are agents of innovation and change in the community
- Parents are aware of the employment opportunities associated with specific majors

6.4 The Current State of Higher Education Provision in Jordan

The Higher Education (HE) system has since made significant progress in enrolment rates over the last few years. Environmental factors including the youth population bulge (increased significantly by the refugee crisis), a misalignment between student demand for university qualifications and labour market needs, and the poor preparation of students entering the system, alongside issues within the system such as governance and an overreliance on private funding, all create a challenging environment for Jordan's HE system. These are discussed below under the five governing principles of this Strategy – access, quality, accountability, innovation and mindset.

Since the government built the University of Jordan in 1962, 10 additional public universities have been established as well as 20 private ones. The number of students at the undergraduate level in 2015/2016 reached approximately 274,000 compared to 192,000 in 2005/2006, as shown in the chart below:

Figure 6.2: Undergraduate Enrolment, 2005/2006 and 2015/2016

	2005/2006	2015/2016	Rate of Increase
Public Universities	132,823	203, 964	54%
Private Universities	59,219	70,025	18%
Total	192,042	273,989	24%

Source: MoHESR, 2016

6.4.1 Access

Since enrolment rates in Jordan are high compared to countries of similar levels of GDP per capita, the key access challenges are the misalignment between the fields of study desired by students and labour market needs, in addition to the complex admissions systems wherein some students are able to enter under lower admissions standards. Operational and financial challenges with access and admissions to universities have led to a number of quality and accountability issues, outlined below.

Enrolment

There is a fundamental imbalance in the proportion of secondary school graduates entering HE compared to those following other tertiary level technical and vocational pathways. The preferences of students and their families for university places has led to a situation where only students who cannot access university go into TVET routes, and many of these do so as a 'back-door' bridge into university. This situation effectively starves the TVET system and the essential jobs that it serves of numbers and talent.

Admissions standards

The heavy weight assigned to Tawjihi scores for university entry have been called into question by many experts, as relying on Tawjihi alone does not fully assess students' potential for HE, either in terms of the different modes of learning involved (critical thinking, independent study, etc.) or for coping with the intellectual demands of more challenging courses. The current admissions system thus fails to contribute actively to meeting HRD needs. Moreover, additional opportunities have been provided for students with lower scores to earn admission at public universities through parallel programmes and academic bridge programmes. These increases in university enrolment and academic programmes to satisfy student demands and social pressures have led to lower standards of outputs at Jordanian universities.

In addition, the increase in the number of universities, students and majors offered year after year have affected the financial situation of universities negatively due to low tuition fees and the rise in student costs[14]. The enrolment expansion also had negative consequences given the lack of balance between the numbers of students enrolled at universities compared to those enrolled in TVET programmes, affecting the quality and relevance of outputs to the local and regional labour market. Under the current circumstances of the HE sector and the flow of graduates into a saturated market, reviewing university admissions policies is no longer enough if it is not accompanied by quick remedial action. One of these actions is ensuring that public and private universities adhere to HEAC standards, as well as reducing the number of accepted students while increasing the number of students accepted in technical and applied colleges. The capacity of public universities over the next ten years should be limited so that it does not exceed 60% of high school graduates.

There is a consensus that the revision of admissions policies should be at the top of the priorities list for developing and reforming HE. It is important to review these policies in all the HE strategies which were developed in these past years in committee recommendations issuing from retreats, conferences, annual consecutive reports for the National Centre for Human Rights, *Jordan Vision 2025* and the National Agenda (2006 – 2015).

Exceptions

The main objective of the adoption of the various exceptions (makromat) was to achieve equity in HE and equal opportunities for certain communities who deserve special attention due to rough economic, social and educational conditions, or to recognise members of society who deserve special attention because of the sacrifices they make for the country. This is in accordance with the provisions of the Constitution, which grants all citizens equal opportunities in education and endorses the principle of social justice. Therefore, any move to eliminate exceptions before creating the right economic, social and educational conditions for these communities will be considered a violation of the constitution.

Specific exceptional admission awardees include those granted to the children of tribes, under-privileged schools and the children of personnel in the armed forces, public security and intelligence. However, the inconsistent application of exceptions year after year and their inflation in some years created an imbalance that must be addressed to ensure equity among students of each exempt category, without affecting the rights of others. The Unified Admissions Unit in the MoHESR is concerned with the distribution of students across universities according to the policies issued by the Higher Education Council (HEC) within two main lists: "competitive admission" and a list of exceptions or allocations of seats for specific groups in the population. The figure below shows the exceptions made to students as percentages of total admissions, including both the competitive stream and the exceptions stream during the academic year 2015/2016.

[14] MoHESR, 2015b

Figure 6.3: Exceptions, percentage of total admissions

Source: MoHESR, 2015

It must be noted that a large proportion of students who are accepted through exceptions do not perform well, nor do they perform well in the labour market after graduation as the figure below shows:

Figure 6.4: Enrolment rates, expulsion, transfer, and drop-out of students admitted through exceptions, 2014/2015

University	Total Enrolled	Total Expelled	Total Transferred	Total Dropped Out	Total (expelled, transferred, and dropped)	Percentage
University of Jordan	1,969	79	514	135	728	37%
Yarmouk	3,992	125	1554	478	2157	54%
Muta'a	881	11	137	129	277	31.4%
Science and Technology	1,758	316	170	124	610	35%
Al Al Beit	1,647	51	85	126	262	15%
Al Balqa'a Applied University	2,352	80	179	27	532	22.6%
Al Hussein Bin Talal	232	74	17	38	129	55.6%
Al Tafileh Technical University	228	40	11	79	130	57%
Total	13,086	776	2,667	1,382	48,250	36.9%

Source: Public Universities Report to HRD Committee, 2015

The Parallel Programme

The parallel programme was launched in 1996 at the Jordan University of Science and Technology (JUST) and then was successively adopted by other public universities. In the mid-1990s, the government found it to be an appropriate solution to support universities. Ten years after the programme was adopted, it became the source of essential revenue for most public universities, which has encouraged the government to continue its support of the programme[15]. The revenues of the parallel programme reached up to 50% of total fees revenues in the public universities during the year 2015.

Thus, with the continuation of the programme, the lack of increases to university fees and the decline of government support for universities, universities have had to increase their revenue by offering redundant majors that are not needed in the labour market. They were also compelled to increase the number of students enrolled in the parallel programme to unacceptably high rates that exceed the capacity of universities and have accepted students with unacceptably low averages, especially in scientific and other programmes that require high scores. This has led to higher rates of graduation at lower skill levels that are misaligned with the needs of the labour market, thus flooding the market with increasing numbers of graduates that either exceed—in number—or fail to satisfy its needs. At the same time, they do not meet professional standards of the private sector, as confirmed by trade unions. The most recent report and study published this year by the Engineers Union describes the reality of engineering work, as the following figure shows.

Figure 6.5: Parallel and International Programme Enrolment, 2014/15

Major	Total admitted students	Parallel programmes and international students	Percentage of parallel and international student programmes
Medicine	8,167	3,991	49%
Dentistry	2,558	1,537	60%
Pharmacy	5,463	2,594	48%
Engineering	53,345	11,321	21%
Total	69,533	19,443	28%

Source: MoHESR, 2015a

The need to cancel the parallel programme in public universities arises here since it conflicts with the principles of equity and equality of opportunity as confirmed by the Jordanian constitution. *Jordan 2025* also stressed its commitment to basing university admissions mainly on merit.

[15] MoHESR, 2015b

6.4.2 Quality

Quality in HE is a complicated concept, and is interpreted in different ways, including adherence to recognised academic quality processes, accreditation to satisfy international subject and professional criteria, relevance to the needs of employers and graduate careers, or the nature of the learning experiences for students.

Alignment with the labour market

Labour market outcomes for students are an important indicator of the quality of a HE system, particularly when considered in the context of national HRD. This is a challenge that HE systems across the globe struggle with, and Jordan is no exception. Out of the 48,500 jobs created in 2013, only 16,600 went to university graduates, 2,200 went to diploma holders, and the remaining 28,700 jobs went to secondary degree holders or below[16].

The number of graduates specialising in education, humanities, and nontechnical and professional fields continues to exceed demand. Around 58% of graduates from Jordanian university majored in education, humanities, and non-technical and professional fields in the academic year 2012/2013 which translates into a labour force dominated by the non-technical fields (70%)[17].

Curricula and pedagogy

Statistics relating to student learning outcomes reinforce the sense that the existing system does not adequately support employability in the current or future Jordanian economy. Current curricula are outdated and unsuitable. According to the 2014 Arab Knowledge Report, nearly 25% of Jordanian students found the educational and pedagogical ability of their professors 'weak' or 'completely ineffective', with only 24% reporting their professors to be 'highly effective'. Efforts have been made to remedy this, with the World Bank's Higher Education Development project introducing Faculty Development Centres across eight centres in public universities in Jordan in 2002[18]. Outcomes varied, however, with some development centres furnished with minimal facilities, staff and incentives for participation. Such centres need to be bolstered and supported with expertise in pedagogy, to enable professors to train their colleagues in developing study plans, teaching and learning methods, student assessment, research methodologies, and e-learning.

In terms of the soft skills developed across courses, pedagogies still emphasise rote memorisation rather than critical thinking, and universities tend to have weak links with industry. A recent survey by the University of Jordan's (UJ) Centre for Strategic Studies found that around 45% of a sample of 25,662 UJ students believe the curricula at Jordanian universities depend on 'spoon-feeding', while nearly 53% think the textbooks are 'not enough' to prepare students for the world outside campus[19]. The impact of this is clearly demonstrated in survey results published in the latest *National Employment Strategy*, which illustrate low employer satisfaction with the skills of recently hired graduates.

[16] World Bank, 2016.

[17] DoS, 2013

[18] Yarmouk University, 2016.

[19] Centre for Strategic Studies, 2015.

Figure 6.6: Employer survey on graduate skills

Source: IFC and Islamic Development Bank, 2011 (from National Employment Strategy)

Scientific research

The quality of scientific research at the university level is poor[20]. A very small portion of Jordan's GDP is allocated towards scientific research compared with other developing countries. Funds to support scientific research are usually provided without ensuring that the studies yield results that contribute to the economic, political, and social development of the country as a whole.

Although scientific research receives 78% of its support from the government and 5% from the Scientific Research Fund, these funds are insufficient to ensure appropriate development and investment in scientific research. Jordan is lagging behind other Arab countries in research publications; in the latest year with available data, the number of articles published per publishing university in Jordan was 284 compared to 470 in Egypt, 302 in Lebanon, 568 in Oman, and 623 in Turkey[21]. Not only is research activity stagnant in the natural sciences, but research on business and finance-related matters is disproportionately low given the size of the business, finance, and marketing programmes at Jordanian universities. The number of citable Business, Management, and Administration (BMA) articles in Jordan was 108 in 2011 with only 335 citations, lagging behind numbers in Lebanon, Saudi Arabia, UAE, and Kuwait[22]. In general, most research papers focus on theoretical academic studies at the expense of applied research related to development issues like energy, water and agriculture. Most of the professors, in fact, conduct research primarily for promotions rather than pursuit of knowledge.

The fact that universities and research centres lack modern technology, equipment and applied laboratories also undermines the quality of scientific research. On the other hand, universities have not taken sufficient efforts to build effective partnerships with the private sector to promote scientific research. Those who follow the ranking of Jordanian universities compared to others in the Arab region have noticed the decline in Jordanian universities' ranking and the connection of that decline

[20] Interview with the Director of Scientific Research Support Fund (Al Ghad Newspaper, February 2016)

[21] Balakrishnan, 2013

[22] Ibid.

with the waning of scientific research, the quality of which deteriorated by 37% between 2008 and 2014[23] In summary, there are several challenges with scientific research at Jordanian universities:

- The weak contribution of scientific research to the national economy
- The low quality of infrastructure to support scientific research at public and private universities
- Insufficient financial support allocated to scientific research
- The qualifications and skills of university students do not meet the desired standards required for conducting scientific research
- There is a need to review and develop the systems and policies regarding sabbaticals, scholarships and promotions to ensure appropriate incentives to pursue high-quality research.

University learning environment

Students are a primary factor in the teaching process. All the elements of the teaching system and quality indicators are related to appropriate university learning environment and an educational climate that meets the needs and expectations of students. It is the responsibility of the MoHESR and universities to ensure all elements of an ideal campus environment for students. This includes suitable curricula, qualified faculty members, good university administration, student activities, suitable facilities and other high quality services. If all these requirements are not available, students' performance will be affected negatively. It will also affect their socioemotional status, leading to loss of confidence, depression, distraction and a weak sense of belonging[24].

The following points are some of the most important criteria and evidence to the failure of university learning environments in fostering activism and innovation on campus:

- University students have long free periods without real productivity
- Insufficient extra-curricular activities offered at universities and the decline in participation in the few that are available
- Lack of open communication between university administration, staff, and students
- University climates are not conducive to positive educational outcomes, as they currently do not encourage students and faculty to modernise teaching and learning processes, engage in open dialogue, exchange new ideas, or foster critical thinking, citizenship, responsibility, and social values.

Teaching load for faculty members

Over the past few years, faculty members have faced increasing pressures due to workload and shortages in teaching staff. The increased demand to enrol in HE and the increased number of students in the parallel programme has led to crowded lecture halls and class sections in many majors. Consequently, faculty members face challenges in finding opportunities and the time to develop and improve teaching methodologies, resulting in weak teaching practices in university classrooms.

International standards

Public universities have not been able to meet international standards in most of their programmes. This has negatively affected their reputation outside of Jordan and has limited their ability to attract expatriate students. It has also led to weakening job opportunities for graduates in the regional markets.

Funding

Making financial support conditional on university performance represents one of the essential mechanisms by which government could motivate universities to reform policies regarding hiring and apply quality standards. However, conditional financing mechanisms are not applied in Jordan.

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[23] Jordan Strategy Forum, 2016

[24] UNESCO, 2012

Universities operate within tightly defined policy and regulatory rules but are not held accountable for their responses to policy or market requirements. International expertise could be utilised to reform funding processes for the benefit of the sector and the economy.

6.4.3 Accountability

HE systems around the world struggle to find the best balance between the autonomy and academic freedoms of universities, which are considered fundamental conditions of academic excellence, and the regulation and accountability of providers for fulfilling their civic obligations and duties.

At the government level

Since the 1980s, a number of HE laws and by-laws have been passed, a number of strategies produced, a Higher Education Council (HEC) and Higher Education Accreditation Council (HEAC) established and a university rating system developed. Nonetheless, a lack of inter- and intra-agency and ministerial coordination has hindered progress. In particular, there has been poor coordination between the Ministry of Higher Education and Scientific Research (MoHESR) and the Ministry of Labour (MoL) to collaborate on determining courses relevant to the Jordanian economy and developing coherent pathways from HE to the labour market for the benefit of both individuals and the needs of the economy.

The original role of the HEC as an advisory arm for high level policies has shifted to a more transactional one, devoting significant time to decision making at university level (appointment of Presidents, monitoring adherence to legal norms, setting limits on enrolment numbers). The involvement of the HEC in low-level institutional university affairs distracts it from its primary mandate of oversight and guidance, and also disenfranchises university boards. Governance trends in OECD countries have shown that HE systems demonstrate most success when the role of government is one of oversight[25], steering from a distance within a regulatory framework that encourages and facilitates innovations in public universities and initiatives by the private sector, rather than controlling day-to-day decision-making. The Committee believes this is a model that should be cultivated in Jordan.

It is important to note here the importance of integration across the Kingdom's education system–in this case, the important collaboration that should exist between the Ministry of Education (MoE) and MoHESR to ensure smooth transitions for students from secondary to post-secondary education. A MoE-MoHESR joint committee is in place, but needs to be operationalised to activate the desired cooperative relationship, and to ensure that students are equipped with the skills, knowledge, values and mindset needed for a thriving HE system.

At the institutional level

Governance in the HE sector is highly centralised, adhering to top-down structure with limited participation of the teaching cadres in higher administration, all the while granting the office of the university president a broad range of administrative and university policy-related authorities. Universities enjoy a great degree of independence in running their financial businesses due to the nature of their own private funding scheme, which is mainly reliant on tuition fees. This may lead to the misuse of university funds. Decision-making within universities is highly centralised through the office of the president, where executive decisions related to institutional policies and administrative practices are determined or approved primarily by the president.

[25] World Bank, 2009.

Governance and legislation in the field of Higher Education

There have been continual amendments to Higher Education and Scientific Research (HESR) legislation pertaining to Jordanian universities over the past decade, reflecting the efforts of decision makers in successive governments. Most legislative amendments for HESR and universities were positive necessities imposed by HE development plans and strategies, including the unification of public and private universities under one law, the establishment of a support fund for scientific research, and the establishment of the HEAC.

Despite that, draft legislation and decisions taken by a number of councils in HE do not effectively contribute to raising the standards of this sector which serves as the main engine in developing human resources, preparing minds for work and for competition in local and international markets. The frequent change in ministries and different councils has contributed, to a great extent, to a state of instability in regulatory legislations for the HE sector. It is time to endorse a stable and comprehensive legislative framework that guarantees accountability, enhances institutional operations and educational programmes at all levels of HE institutions.

6.4.4 Innovation

There has been a recent general understanding in Jordan of the importance of integrating technology in HE. Traditionally, technology in the HE system has been viewed as a separate bolt-on rather than a tool to enhance the system at every level. There is evidence that this is beginning to shift—an Edraak MOOC was recently accredited to be used in a blended learning format, and University of Jordan recently held an 'Innovation and Entrepreneurship Day'[26]—but there is substantial scope to do more. The use of technology at the university level also includes enhancing operational efficiency, improving the faculty members' teaching capacity and monitoring student outcomes. However, existing governance structures and lack of university autonomy hinder the capacity of institutions to innovate or respond to change in an agile manner, and current financing mechanisms do not promote or incentivise innovation[27].

6.4.5 Mindset

Students and parents

There is no doubt that social pressures on students and parents to pursue university education over other post-secondary educational paths (such as TVET) has played a significant role in accentuating the gap between HE outputs and labour market requirements. There is a very strong preference for university education over other forms of tertiary provision in Jordan. To an extent, HE has been viewed as a prestigious end in itself, which means that due consideration is not always given to the employment opportunities associated with a particular course of study. As a result, there is an oversupply of students in certain subjects considered to be highly prestigious (medicine, engineering etc.). There is also an entrenched preference for the security and benefits afforded by a public sector job, and many young graduates have traditionally been willing to take on voluntary unemployment while waiting for such a position to arise.

Although the public sector will likely continue to be an important, and indeed preferred, employer in Jordan, contributing to 24% of all net created jobs[28], the private and informal sectors also need to play a larger role in job creation in order to reach the *Jordan 2025* goal of only 8% unemployment within the decade. Projecting past rates of government employment growth[29] over the next decade, by 2025

[26] Goussous, 2016.

[27] World Bank, 2009.

[28] World Bank, 2016.

[29] *Jordan Vision 2025*.

there will not be more than 486,000 public sector jobs available, whereas the private sector would need to formally employ more than one million people (with the remainder of jobs to come from the informal sector).

Engendering a shift in long-standing and strongly held preferences regarding university education and employment can be catalysed through structural reform of the system to ensure that relevant skills are developed and quality alternative options to university are available. The dominant negative conception about alternatives to university education can also be changed by career guidance and awareness campaigns. These could aim to raise the social status of other vocational and technical options and job opportunities in the private sector and highlight the important role of the youth in the development process.

Academic culture

The academic culture at institutional level also inhibits progress and improvement – it is seen as rigid, centralised, disconnected from the needs of the labour market and resistant to change. There are few systemic mechanisms in place to incentivise universities to innovate, evolve, or engage with industry to create more relevant up-to-date courses[30]. This is not unique to Jordan, as conservative institutional cultures can be observed in universities across the world. Addressing the governance issues that stifle innovation, dynamism and efficiency would play a large part in shifting this culture.

6.5 Strategic Objectives

In response to the analyses summarised above, and the imperatives for establishing a modern, value-producing HE system, the Committee proposes reforms designed to achieve strategic objectives in the key dimensions set out below

HE1	Access – to establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes
HE2	Quality – to raise the standards of HE research, teaching and learning to those expected from the best modern universities
HE3	Accountability – incentivise and encourage universities to take greater responsibility for making significant contributions to national economic and social goals
HE4	Innovation – to enable the adoption of international best practices in teaching and learning that will support improved access and quality
HE5	Mindset – to instil stakeholder understanding of the national purposes and benefits of HE, and promote informed engagement with the system

[30] World Bank, 2009.

6.6 Projects Required to Achieve Outcomes Sought

Set out below are the projects the Committee believes are required to achieve the outcomes sought.

Strategic Objective	Projects
HE1: Access – To establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes	HE1.1: Unified Admissions System for Undergraduate Degrees, to include gradual phasing out of parallel programme and restructuring of certain exceptions HE1.2: Adapt key degree programmes to include a foundation year for majors like Medicine and Dentistry starting in 2018, then gradually expand to other majors HE1.3: Student guidance and career counselling HE1.4: Expand student financial assistance
HE2: Quality – To raise the standards of HE research, teaching and learning to those expected from the best modern universities	HE2.1: Accreditation of professional programmes and adherence to Quality Assurance standards HE2.2: Review and streamline existing programmes and majors offered HE2.3: Enhance teaching capacity HE2.4: Measure, monitor, and report on teaching and scientific research quality HE 2.5: Create university learning environments that promote excellence and innovation
HE3: Accountability – Incentivise and encourage universities to take greater responsibility for making significant contributions to national economic and social goals	HE3.1: Strengthen HE governance bodies HE3.2: Review and clarify process of university president selection and appointment HE3.3: Strengthen incentives for effective resource management
HE4: Innovation – To enable the adoption of international best practices in teaching and learning that will support improved access and quality	HE4.1: Establish an HE Innovation and Development Fund HE 4.2: Upgrade technological infrastructure and tools across HE campuses and promote use of Open Educational Resources (OERs)
HE5: Mindset – To instil stakeholder understanding of the national purposes and benefits of HE, and promote informed engagement with the system	Almost all of the measures outlined under HE1 to HE4 above are designed to change attitudes and behaviours among stakeholder groups, collectively addressing this objective.

HE1: Access – To establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes

Initiatives that are proposed will:

- Ensure fair access to HE, and provide support throughout the student journey to maximise student outcomes by:
  - Restructuring the admissions system to ensure a unified, merit based system for admissions to university
  - Ensuring students are prepared for the demands of HE
  - Guiding students towards the pathways best suited to their aptitudes.
- In tandem with this, this programme will propose measures to mitigate the financial consequences of this new arrangement for both institutions and students by:
  - Providing estimates of the funding needed to compensate for lost parallel programme fees
  - Expanding financial support for students to enable them to meet the burden of tuition fees
  - Empowering and supporting universities to develop alternative revenue streams.

Project Title	**HE1.1: Unified Admissions System for Undergraduate Degrees, to include gradual phasing out of parallel programme and restructuring of certain exceptions**
Objectives	Establish a unified system based on merit for admission to universities, and to achieve equality and equal opportunities through restructuring admission exceptions and the elimination of unfair privileges applied in the parallel programme
Activities	**Exceptions**: o Governorates and Districts exceptions remain the same and unchanged for the academic year 2016/2017. o Additional seats are allocated to the governorates and districts for Medicine and Dentistry programmes in the foundation year or its equivalent starting in 2018. o Increase the exceptions allocated to the children of the Armed Forces, the Public Security Department (PSD), the General Intelligence Department (GID) and the Civil Defence Department from 20% to 30%, so that the additional 10% is allocated towards enrolment in technical education o Increase the exceptions allocated to the children of the MoE staff from 5% to 10%, so that the additional 5% is allocated towards enrolment in technical education. o Create a distinction between exceptions extended to students from the Badia area (desert) schools and those from disadvantaged schools o Increase cooperation of MoHESR with the MoE to ensure that the main reasons for poor performance in primary and secondary schools are addressed, thus reducing the need for exceptions for students from Disadvantaged schools o A special committee representing the MoE, the MoHESR, the Counsellors of Tribal Affairs, and other stakeholders will establish objective, professional and declared rules for the lists of the sons of the Badia area o Students selected from the list of “the sons of the Jordanian Badia area” to include Northern, Central and Southern Badia

	schools only in accordance with the rules of the competition between them and based on the sequence of their scores o Admission to universities will take place through the HEC o Rectify the conditions of schools with special circumstances (disadvantaged schools and schools in the Badia area) in a period that does not exceed 10 years so that these schools reach the required level during the first seven years, until they finally address the 'special circumstances'. To achieve this, the following steps should be taken: o The creation of a special independent association named the "School Rehabilitation Commission" that includes educators, social workers, engineers and administrators in its cadre. The Commission will be entrusted with the task of cooperating with the MoE, administrative governors and government departments to implement the programme, as well as deal with teachers, schools, the school environment, infrastructure and transportation, all based on objective grounds o Schools with special circumstances will be eliminated gradually from the exceptions list upon completion of the rehabilitation programme • Study the possibility of adding other criteria for admission to university other than Tawjihi scores; for example, conducting interviews. • Create competition among students entering HE through exceptions so that admissions are based on merit **Parallel programme** • Gradually cancel the parallel programme for Jordanian students over 8 years starting in the academic year 2017/ 2018. To achieve that, we suggest the following mechanism: o Reduce the number of students enrolled through the parallel programme by 12.5% over eight years, reaching a total of 5,550 students in the final year from an original total of 44,400 in 2016 o In the first year that the reform is implemented, universities income will be reduced by JOD 17 million. By year eight, reduction in universities' income will amount to JOD 136 million, at which point the reduction in come will have reached its cap and stabilised. The government will have to compensate universities to cover the income that universities lost due to the cancellation of the parallel programme reform plan. Refer to figure 6.7 below for the funding plan.
Responsibilities	• The HRD Reform Board and the HRD Results and Effectiveness Unit for support and development of the funding plan • The MoHESR, the MoE, and universities to implement recommendations for admissions standards, exceptions and the parallel programme • HEAC will be responsible for ensuring the reduction of the number of students admitted under the parallel programme • The Government to financially compensate universities due to the cancellation of the parallel programme
Current Status	The Higher Education Council (HEC) sets the criteria for competitive admissions requirements while universities specify those for the parallel programme. The HEC sets the percentage of students (from the total number of students admitted to a university) that can be admitted through the parallel and international programmes. There are objections over the outputs of Jordanian universities especially of the parallel programme, and there is no

	clear mechanism by which the programme can be gradually phased out of the HE system. The foundation year is not established in any of the universities for any major.
KPIs	• The percentage of new students admitted to universities outside the unified competitive system (target to be achieved by 2025) • The number of disadvantaged schools and schools in the Badia area on the exceptions list

Risks and Mitigations	• Risk: Funding gap creates concerns for public universities over lower revenues as a result of the cancellation of the parallel programme Mitigation:
	  ○ Adopt an alternative route for cancelling the parallel programme: gradually cancel the parallel programme, as well as restructure and unify tuition fees across all public universities based on a study and an average fee that is suitable for all students. This should be able to approximately fill the funding gap caused by the cancellation of the parallel programme and cover costs of academic programmes. Students will be supported by the newly established Student Aid Agency with loans and scholarships for high-need students, as well as outstanding scholars.
	  ○ Encourage universities to develop a plan to control expenditures so that its implementation is followed up by the Board of Trustees, and encourage them to secure additional sources of financing such that the university's financial portfolio and strategic partnerships will be taken into account during the university classification process
	  ○ Stop unjustified and unnecessary hiring, and the use of surplus staff to cover any shortages in the event of a vacancy
	  ○ Encourage and support efficient universities
	  ○ Increase cooperation with the private sector, as well as support the Student Aid Agency (see HE1.4) and the establishment of Centres of Excellence.
	  ○ Provide advisory, technical and scientific services for third parties
	  ○ Seek external funding from international bodies for research projects and equipment.
	  ○ Students and parents should be presented with attractive alternatives to the parallel programme, which can be achieved through the following:
	  ▪ Incentivising students to choose tertiary and higher level TVET paths
	  ▪ Launching a public awareness campaign to raise awareness of the prestige and value of TVET programmes and careers – but only once tangible reform has been made to TVET provision (see TVET section)
	  ▪ An increase in the quality and capacity of TVET provision (see TVET section)

Phase of	Phases 1, 2 and 3: This project would need to begin in phase one but would be

Implementation	gradually implemented in tandem with other projects required to make it both financially and politically viable and palatable

Figure 6.7: Annual Decreases in the Number of Students and the Gradual Financial Compensation to Universities due to the Cancellation of the Parallel Programme

Year	Total number of students	Number of non-Jordanian students (no reduction)	Number of Jordanian students (will face reduction due to cancellation)	Annual reduction in number of students	Reduction in Income
now	226,000	11,000	44,400	0	0
Year 1	220,450	11,000	38,850	5,550	17,005,200
Year 2	214,900	11,000	33,300	5,550	34,010,400
Year 3	209,350	11,000	27,750	5,550	51,015,600
Year 4	203,800	11,000	22,200	5,550	68,020,800
Year 5	198,250	11,000	16,650	5,550	85,026,000
Year 6	192,700	11,000	11,100	5,550	102,031,200
Year 7	187,150	11,000	5,550	5,550	119,036,400
Year 8	181,600	11,000	0	5,550	**136,041,600**

Project Title	HE1.2: Adapt key degree programmes to include a foundation year
Objectives	Enable students to adapt to the demands of majors and programme requirements, both in terms of knowledge and skillset, and allow those who are capable to pursue their studies in these majors successfully to progress to following years, while directing those who do not succeed in the foundation year towards alternative academic paths.
Activities	• Redesign degree programmes so that the first year acts as a foundational year for courses demanding high levels of prior knowledge and academic capabilities – beginning with Medicine and Dentistry in 2018 • Design an assessment for Jordanian graduates of Medicine from international universities abroad • Design rigorous examinations to assess student readiness to progress to the second year at the end of the foundation year • Redirect students not making the grade onto more appropriate courses or levels of study (e.g. diploma courses)
Responsibilities	• Individual universities could be empowered to pilot and test this proposition (possibly starting in engineering or medicine), and to roll it out more widely if successful • MoHESR and the HEC to coordinate and monitor effectiveness
Current Status	There are no precedents for this proposal in Jordan, although there are successful similar programmes in the United Kingdom and other countries
KPIs	• Dropout rates and percentage of students who fail courses in their major after the foundation year • Employer satisfaction with recent hires reported in the Enterprise survey (See TVET) • Percentage of students who graduate and percentage of students who drop-out from programmes with a foundation year
Risks and Mitigations	There are no serious risks to this programme, except to find a programme dealing with students who do not pass the foundation year and the status of their studies.
Phase of Implementation	Phase 2 (2-4 years) – to allow time to design, implement and staff this proposal

Project Title	HE1.3: Student guidance and career counselling
Objectives	Guide students to post-secondary tracks and majors that match their abilities and aspirations, while reducing the number of students enrolled in universities who are not fully aware of alternative options and future job opportunities
Activities	• Provide guidance and information related to career paths at schools, linked to wider opportunities for education, as well as high quality vocational and technical training within post-secondary and tertiary levels of education • Collect and distribute accurate data about employment outcomes from various majors at each university through a Labour Market Information System (LMIS) (see TVET 3.2) • Provide grants and other forms of financial support and incentives for those enrolled in technical and professional majors
Responsibilities	• The MoE and schools in cooperation with the new Skills Development Corporation (SDC) (see TVET3.1) • MoL • Educational institutions to be responsible for grants/financial support
Current Status	There is currently little guidance for students entering HE from school, and students are not mentored or informed early enough of the implications and opportunities associated with the different paths available. Many factors contribute to the current status quo: lack of data or information about employment outcomes for students, strong preference for university education relative to other tertiary programmes, and the low quality of existing TVET provision. Career guidance is one of a number of initiatives designed to counteract these (see TVET5.1).
KPIs	Increasing numbers of those enrolled in technical majors (from 20,000 to 50,000) programmes
Risks and Mitigations	No adverse effects foreseen from this proposal
Phase of Implementation	Phase 2 (2-4 years) – allowing time to set up advisory services and scholarship scheme

Project Title	HE1.4: Expand student financial assistance
Objectives	To ensure that all qualified students receive the financial support they need to access HE
Activities	Expand Student Support Fund services to become a financial institution—the Student Aid Agency—that supports students and is closely linked to the banking sector. The new entity should: • Examine the challenges faced by previous efforts in this regard and explore successful case studies in countries similar to Jordan in both income category and educational context (to be the successor of the current Student Support Fund, but on a wider scale) • Work with banks and HE institutions to establish the new financing institution, Student Aid Agency, along with its management • Ensure loans are means tested, with extended repayment periods and a post-graduation grace period, and introduce new loans on a phased basis • Manage the allocation of grants and other allowances to high-need students • Review existing mechanisms for awarding financial aid and ensure that a strategic plan is applied to guide support for high-need students • Until improvements are made in the efficiency with which resources are used at universities (see HE3), MoHESR should funnel any additional state funding into student support rather than allocating funds directly to universities
Responsibilities	• System should be established by MoHESR and administered by the new Student Aid Agency in partnership with private providers (per international models). • The HRD Reform Board and the HRD Results and Effectiveness Unit will support the funding plan (IMP4.1) • Loan collection should involve a whole of government approach to promote compliance
Current Status	The Student Support Fund currently provides loans and grants to about 40,000 students[31]. As most parents cannot afford tuition fees, the current student support system is inadequate. Development of a large-scale, government-guaranteed loans scheme was actively under consideration under Higher Education Reform for the Knowledge Economy (HERfKE) project in 2010, but the proposed Jordan Student Aid Fund or Agency was never launched. This project proposes re-launching on a similar basis.
KPIs	• Student Aid Agency established and running according to schedule • The percentage of undergraduate Jordanian students receiving support

Risks and Mitigations	• Risk: Government ability or willingness to assume risk of guaranteeing loan
	Mitigations:
	  ○ An integrated, whole of government approach to collection as noted above
	  ○ A comprehensive review of loan system outcomes in similar countries to demonstrate advantages of the system (known examples of programmes in countries with Jordan's level of GDP/capita show that even with 50% recovery rates, means-tested student loans are still more cost effective than any other manner of subsidy)

Phase of Implementation	Start planning in Phase 1 with launch of Student Aid Agency during Phase 2.

[31] The Ministry of Higher Education and Scientific Research, 2015

HE2: Quality – to raise the standards of HE teaching and learning to those expected from the best modern universities

Initiatives proposed will:

- Make public funding conditional on demonstrating high quality provision
- Ensuring professional qualifications are internationally recognised
- Measuring, monitoring and reporting on quality standards
- Encourage and assist effective teaching.

Project Title	**HE2.1: Accreditation of professional programmes and adherence to Quality Assurance standards**
Objectives	Raise the quality of all HE institutions and ensure that their academic and professional programmes meet international quality and accreditation standards, attracting more foreign students.
Activities	• Strengthen HEAC staff capacity and authority to improve national programme accreditation beyond evaluation of licensing requirements and enable effective Quality Assurance for all institutions (see HE3.1) • Refine HEAC Quality Assurance standards and set a reasonable timeline for universities to achieve those standards. Standards should include teaching quality (HE2.4) and effective resource management (HE3.3) • Re-evaluate all university programmes (internally and externally), and specify courses to be accredited and accreditation systems to be used • Introduce regulations requiring universities to secure national and international accreditation of degree programmes leading to regulated professions (medicine, engineering, pharmacy, etc.) • Universities to report on the accreditation received or planned for designated courses, within specified time limits
Responsibilities	• MoHESR • HEAC • Universities
Current Status	Not all majors that grant professional degrees are accredited locally and/or internationally, and quality assurance is inconsistent.
KPIs	• Number of institutions meeting HEAC quality standards • Proportion of designated courses accredited by recognised international agencies or institutions, within time limit: 100% of designated programmes within 5 years
Risks and Mitigations	There are no negative impacts anticipated from this project.
Phase of Implementation	Phase 1 (1-2 years) – this requirement could be introduced quickly, with perhaps a 3-4 year (phase 2) implementation window

Project Title	HE2.2: Review and streamline existing programmes and majors offered
Objectives	Terminate redundant courses with little associated labour market demand and allow universities to specialise in areas of high national importance
Activities	• The reconstituted HEC (see HE3.1) to conduct a comprehensive review of the range of programmes offered across universities • Terminate funding for those with minimum relevance or poor student outcomes, limit the number of majors that a university can provide, and incentivise universities to develop specialisations in pre-identified areas of national importance • Utilise LMIS (see TVET3.2) to inform decisions on priorities
Responsibilities	• HEC • HEAC
Current Status	• The number of graduates specialising in education, humanities, and non-technical and professional fields continue to exceed demand. Around 58% of graduates from Jordanian universities majored in education, humanities, and non-technical and professional fields in the academic year 2012/2013 which translates into a labour force dominated by the non-technical fields (70 percent)[32].
KPIs	• Improved student outcomes (graduate employment) • Reduction in number of redundant majors offered by each university • Improved quality ratings for overall university portfolios (fewer poorly rated programmes)

Risks and Mitigations	• Risk: Universities would resist limitations on courses provided and loss in earnings through fees that this may entail
	Mitigation: Incentives for universities to focus on high labour market demand majors
	• Risk: Students would resist reduced range of options
	Mitigations:
	  ○ Increased quality of TVET provision as an attractive alternative (see TVET proposals)
	  ○ Improved career guidance to inform students of labour market demand and employment opportunities associated with different majors (see HE1.3)

Phase of Implementation	Phase 1 (1-2 years) – this requirement could be introduced quickly, with a 3-4 year (phase 2) implementation window

[32] DoS, 2013.

Project Title	HE2.3: Enhance teaching capacity
Objectives	Enhance the effectiveness of teaching faculty and teaching assistants by developing their professional skills, rewarding excellence, and allocating their time strategically
Activities	• Strengthen the capacity of Faculty Development Centres (FDCs) • Establish e-learning centres at universities in cooperation with Massive Open Online Courses (MOOCs) platforms (e.g. Edraak) with pre-existing expertise to expand and enhance university capacity to deliver effective online learning options • Leverage the new e-learning centres to provide faculty with opportunities to develop new skills related to the latest developments in pedagogy and teaching with technology, through Small Private Online Courses (SPOCs) and other means • Reward teaching excellence and participation in continuing professional development in internal promotion and salary increase criteria, through a national recognition programme, and introduce programmes whereby tenure can be achieved through demonstrated teaching excellence • Amend by-laws to increase the proportion of research devoted sabbaticals that are also linked to areas of national priority • Reduce administrative burdens on teaching staff through streamlined processes and reduced committee work (see HE3.3)
Responsibilities	• Faculty training and recognition programmes could be introduced and managed by the HEC • Other changes are the responsibility of individual universities, incentivised by the impacts on teaching quality assessments (HE2.4) and availability of funds for innovative programmes such as e-learning centres or tenure programmes focused on teaching excellence (HE4.2) • Online provision to be developed in collaboration with experienced partners
Current Status	• There is little or no current activity in this area, and Faculty Development Centres have had mixed results.
KPIs	• Percentage of teaching faculty spending at least 5 days per year on professional training and development • National Student Survey along the lines of NSS in the UK, to be developed and improved results used as a KPI • HEAC proficiency exam • Pilot e-learning centres established
Risks and Mitigations	• Risk: Low take-up by current faculty members Mitigation: Incentives and promotions subject to Continuous Professional Development (CPD) and performance in teaching
Phase of Implementation	Phase 2 (Year 3-5) – with earlier pilot programmes

Project Title	HE2.4: Measure, monitor, and report on teaching quality
Objectives	Improve teaching quality and enhance student, employer and public awareness and confidence in the quality of teaching provision at different universities
Activities	• Higher Education Management Information System (HE-MIS) to be reinvigorated and staff mandated with sufficient authority to compel universities to provide necessary data • MoHESR, with HEAC, to specify a set of measures of teaching quality (covering learning environment, student experiences and graduate outcomes). Metrics should be selected from international methodologies, such as the OECD AHELO framework or the EU UMultiRank system, allowing international benchmarking against selected comparators • Incorporate selected teaching quality metrics into the data sets collected through a reinvigorated HE MIS system • HEAC to collate and evaluate the data at institution and sector level, incorporate teaching quality into Quality Assurance Standards (HE2.1), and publish an annual quality report. HEAC to disseminate findings to students and the general public to drive more informed choices in HE pathways (i.e. employment outcomes can encourage students to consider vocational or other under-enrolled fields)
Responsibilities	• MoHESR and HEAC with the potential support from specialised international institutions
Current Status	• HE-MIS system was established in 2011 but data is not being gathered on a consistent, system-wide basis.
KPIs	• KPIs would derive from the quality metrics used for the framework, with targets of raising overall performance towards international benchmarks (e.g. in AHELO) and also for individual institutions to improve over time • Number of citable articles published per publishing university • Number of citations for Jordanian authors and researchers
Risks and Mitigations	• Risk: It is likely the faculty members at public universities will oppose evaluating their performance according to specific criteria. Mitigation: This could be overcome through a) reference to international trends, in line with the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) for schools – the OECD AHELO system proves an established basis for this and b) ensuring the data collection entity has sufficient authority to oblige participation and adherence • Risk: Data collection will not be coherent or comprehensive Mitigation: Capacity building and training for data collection staff
Phase of Implementation	Phase 3 (year 4-6)- for implementation, given time needed for consultations, evaluations and implementation, but pilots could be trialled in Phase 1 (year 1-2)

Project Title	HE2.5: Create university learning environments that promote excellence and innovation
Objectives	Create a university learning environment that is a catalyst for creativity and excellence, inspiring a sense of security, equity, responsibility and citizenship. Promote a learning environment that is conducive to dialogue and acceptance of diversity of opinions.
Activities	• Create a university learning environment that is a catalyst for creativity and excellence by carrying out the following tasks: • Increase and support students 'extracurricular activities, including cultural, sports, social, artistic and interactive activities, so that they are an integral and essential part of academic life on campus. These activities should enhance student relationships with one another, in addition to students' social and communications skills • Guide, adopt, and financially support student-run programmes that enhance their effective participation in various university events and functions, as well as develop their entrepreneurial role in their community • Offer educational courses during the first year that aim to enhance students' sense of citizenship and duty to the State and Jordanian society. These courses should also encourage and refine students' discussion and communication skills, in addition to developing their understanding of principles of acquiring and sharing knowledge, respectful dialogue, and respect and acceptance for different viewpoints • Increase and strengthen awareness programmes, as well as academic and psychological counselling for students • Expand student employment programmes on campus • Work closely with Student Unions in making decisions regarding student policies to establish a cooperative relationship between the university administration and the student body. The university administration will allocate a day in each month to meet with members of the Students' Union to listen to their demands and concerns • Support and encourage volunteer work and collaborative environments • Build capacity and train staff working in Student Affairs and other departments who have direct contact with students to deal with their issues and concerns through cooperation and mutual respect, as well as train staff to refrain from instigating tension from differences and invite parents to participate in solving student problems if necessary • Build capacity and train university campus security staff to equip them with the necessary skills and tools to deal with the students' disciplinary matters through constructive and educational means
Responsibilities	• Deanship of Student Affairs • University Campus Security • Students' Union • Office of the President (overseeing the progress of the operation)
Current Status	• University students have many free periods with no real activities to fill their time • Limited and under-resourced extracurricular activities in universities that attract few participants • Lack of open communication between university administration and staff, as well as between university administration and students • University learning environments need to be improved to become more attractive to students and more conducive to the development of values linked to responsibility and citizenship

KPIs	• Percentage of students who have confirmed receiving support from the university to promote the implementation of their ideas (via student satisfaction survey) • The number of student entrepreneurial initiatives and ideas presented by students • The percentage of students "satisfied" or "very satisfied" with programs offered by Student Affairs • Percentage of students who are employed on campus • A decrease in the number of incidents in which university security intervenes in student matters
Risks and Mitigations	• Risk: Lack of cooperation and interaction of stakeholders such as the Deanship of Student Affairs and University Security with these activities • Mitigation: Develop reporting system based on feedback by the Student Council and the Deanship of Student Affairs. The Office of the President will supervise the feedback process.
Phase of Implementation	Planning and implementation starts in Phase 1

HE3: Accountability – to encourage universities to take greater responsibility for making significant contributions to national economic and social goals

Initiatives are proposed that will:

- Reconstitute the HEC as a national driver for system wide excellence
- Reform the responsibilities and membership of university boards
- Strengthen the accountability of universities for their use of public funds.

Project Title	**HE3.1: Strengthen HE governance bodies**
Objectives	Improve accountability and quality assurance by redirecting the HEC towards its policy remit and away from institutional affairs, strengthening the HEAC, and empowering institutions with greater autonomy
Activities	Governance: • Amending the "Jordanian Universities" and "Higher Education and Scientific Research" laws as follows: - Reconsider the structure of the Higher Education Council to include in its membership (8) members in addition to the president. - Reduce the number of members of the Board of Trustees from 13 in public universities and 15 at private universities to 9 members, including the President. In addition, placing emphasis on activating the role of the Board of Trustees within academic, financial and administrative domains. HEC: • Amend the HEC statutes to reaffirm its role and mission as a policy

	advisory arm and limit day to day institutional involvement • Ensure the HEC is supported with an effective policy and planning unit • Require the new HEC to publish an annual assessment of progress by the HE sector towards the objectives and reforms set by the HRD Strategy • Task HEC with driving the operationalising of the MoE-MoHESR joint committee to promote smooth transitions for students moving from secondary level education to university HEAC: • Enhance HEAC authority and ensure adequate resources and budgetary autonomy to empower the HEAC to deliver the quality enhancement and innovation activities identified in HE2 above • Ensure HEAC staffing autonomy and adequate funding to hire professional tenured staff specialised in HE accreditation, assessments and examinations, and Quality Assurance • HEAC to establish an annual assessment process for university presidents Universities: • Devolve powers and responsibilities for access, quality and responsiveness for strategic priorities to universities • Devolve powers and responsibility for curriculum, staffing, budgets and recruitment to university boards and presidents, within new accountability frameworks • Establish Performance Agreements between HEAC and universities for delivery of enrolment plans and quality standards, within national policies
Responsibilities	• The MoHESR leads the reform process in consultation with universities, the private sector and other Ministries
Current Status	• The HEC is currently constituted to support the directions of the MoHESR, with members appointed by the Minister from the HE sector, and lacks an effective policy and planning unit to drive its focus towards strategic system-wide issues. The HEAC is not currently fully autonomous and is staffed by professors on loan from universities on a rotating basis rather than professional tenured specialists.
KPIs	• Set up the new structures within Phase 1 of the Strategy • Operating fully by Phase 2; survey (reconstituted) university boards and presidents on perceived effectiveness and value of the reconstituted HEC
Risks and Mitigations	No unexpected adverse effects, assuming that the responsibilities entrusted to universities (HE3.2) are proving effective
Phase of Implementation	Phases 1 and 2, as described above

Project Title	HE3.2: Review and clarify process of university president selection and appointment
Objectives	Ensure quality of leadership in HE by improving the rigor of university president selection and appointment process
Activities	• Institute a bylaw for the appointment process of presidents in public universities, outlining the appointment mechanism operated through the Selection Committee. The Selection Committee nominates its top three candidates to the HEC, which in turn nominates one of them to the Prime Ministry • Conduct a feasibility study midway through the HRD Strategy timeline to assess the possibility of granting reconstituted university boards an increased role in the appointment of presidents who will then be accountable to the board for their performance, as in many higher-performing systems around the world. If this is deemed feasible, define new clear guidelines for the selection and appointment process
Responsibilities	• Reforms are implemented by MoHESR, and are subject to approval by the Prime Ministry • The HEC and universities to comply with processes • HEC/HRD Reform Board to assess feasibility of devolving selection and appointment to university boards
Current Status	• There is no fixed mechanism for the appointment of university presidents and the final decision is made by the HEC • HE legislation is currently being amended in order to include most of the recommendations proposed in the Strategy
KPIs	• Assessment after 3 years, and every 3 years thereafter, to ensure reforms have been implemented and are working effectively
Risks and Mitigations	Risk: Stakeholders will continue to circumvent the official regulations and interfere in the university presidents selection process Mitigation: Set a fixed system of procedures and criteria for selecting presidents
Phase of Implementation	Phase 1 (1-2 years) to enable the legislative reforms and reforms related to public policy, and Phase 2 and beyond to implement the new measures

Project Title	HE3.3: Strengthen incentives for effective resource management
Objectives	Link public funding to the performance of universities against the objectives of the Strategy and good management practices
Activities	• Amend regulations for public funding to allow greater Ministerial discretion in allocations and conditions, within rules and principles set by the HEC • Include funding conditions within the university Performance Agreements proposed in HE3.2, with allocations dependent on results • Encourage universities to redirect resources towards teaching, research and students, by funding 'good management' initiatives • HEAC to commission and publish independent review of resource allocation and staffing efficiency at universities • Incorporate quality thresholds into institutional inspections by the HEAC for public and private institutions, rating universities as 'excellent', 'good' or 'requiring improvements'. • Make public funding conditional (for public and private providers) on institutions having been rated at least 'good', with premium funding for those with 'excellent' ratings. Make Student Aid Agency funding for students contingent upon the chosen university's compliance with this regime to ensure incentives for private institutions
Responsibilities	• MoHESR, with HEC, HEAC and Ministry of Finance (MoF)
Current Status	• Current funding allocations are not conditional on university performance and do not reward performance or efficiency. Administrative staffing ratios suggest significant scope for improved efficiencies within universities.
KPIs	• Effectiveness of these measures should be judged in terms of the performance improvements sought, i.e. in operational indicators such as staffing ratios, % of income spent on teaching and students • Ratio of non-academic to academic staff in line with international norms
Risks and Mitigations	• Risk: Poor performing universities will lose funding as a result of these changes, but that is a necessary implication of an effective performance-based funding system • Risk: Current levels are too low to serve as the sole motivator of these reforms Mitigation: Other tools to bolster these efforts – enhanced transparency through published, independent reviews of resource allocation, access to government-guaranteed financial assistance for students, etc.
Phase of Implementation	Phase 2 (years 2-4) for designing the new approaches, and Phase 3 (years 3-5) to start rolling out

HE4: Innovation – To enable the adoption of international best practices in teaching and learning that will support improved access and quality

Actions proposed to support this goal:

- Establish an Innovation and Development Fund
- Enhance integration of education technology in HE.

Innovation is also harnessed to achieve other objectives under quality (to enhance teaching quality) and accountability as outlined above.

Project Title	**HE4.1: Establish an HE Innovation and Development Fund**
Objectives	Finance pilot and demonstrator projects to encourage the introduction and adoption of innovative practices, and to leverage PPP engagement
Activities	• MoHESR to provide budget for the Fund to the HEC • HEC to invite proposals for projects from universities aligned with overarching policy goals such as improvement of e-learning capacity (HE2.3), or to initiate such projects with university and private partners • Results from funded projects to be reviewed by HEC and shared with the wider sector • Lessons learned and progress made to be included in the HEC annual report
Responsibilities	• HEC, with MoHESR funding
Current Status	• The MoHESR's Scientific Research Fund has a board and a competitive selection mechanism, but geared towards research rather than teaching or other areas of innovation.
KPIs	• Number of projects funded through the scheme and innovations adopted as a result
Risks and Mitigations	There should not be any negative impacts from this initiative
Phase of Implementation	Phase 2 (years 2-4)

Project Title	HE4.2: Upgrade technological infrastructure and tools across HE campuses and promote use of Open Educational Resources (OERs)
Objectives	Develop and implement a national strategy to 2025 to upgrade technology across campuses and promote the use of OERs and other technologies to enhance teaching, learning and research.

Activities	HE entities (MoHESR, HEC, HEAC) and MoICT to develop and implement a national strategy (to 2025) for integrating ICT in HE in collaboration with relevant private sector and NGO partners, with a focus on identifying funding and mechanisms to ensure effective implementation, including (at minimum) the following aims:
	• Upgrade technological resources and infrastructure:
	  ○ Ensure high-speed wireless access across the entirety of all university campuses as well as communication systems for students and staff
	  ○ Ensure students and staff have access to technological devices (computers, electronic whiteboards, etc.) and software in computer labs and lecture halls to support teaching and learning
	  ○ Build institutions' capacity to provide learning resources such as lectures, homework, and self-assessments electronically
	  ○ Promote use of technological tools to support administrative functions
	  ○ Ensure institutions have adequate technological maintenance plans
	• Upgrade institutional MIS systems, link with national HE MIS system, and train leaders in data-driven decision making
	• Establish a national committee to coordinate MIS data across institutions and ensure quality and relevance of all national indicators
	• Promote greater utilisation of technological tools to support teaching, learning and research:
	  ○ Establish a national centre to promote the use of OERs such as Edraak courses and other high-quality content in partnership with e-learning centres at individual institutions (see HE 2.3) as well as university faculty and external partners generating content
	  ○ Develop framework and legislation to regulate online learning to ensure quality
	  ○ Establish dynamic planning process to promote use of technology to align HE with the needs of the labour market (e.g., promoting videoconferencing to develop international communication and cooperation skills)
	  ○ Support interdisciplinary, applied research focused on using technology to advance national economic interests
	  ○ Develop and empower start-up incubators and promote a culture of creativity and entrepreneurship on campuses
	  ○ Develop faculty capacity to integrate ICT in teaching and learning (see HE 2.3)

Responsibilities	• MoHESR, HEC and HEAC • MoICT • Relevant private and NGO partners (Edraak and other OER and

	SPOC developers, private sector vendors, etc.)
Current Status	• There have been scattered efforts to introduce new technologies at various campuses, but no unified national strategy for ICT in HE. Arabic-language OERs have been developed by Edraak and other providers but have been embraced by few HE institutions.
KPIs	• Percentage of HE institutions with wireless connectivity across campuses • Percentage of HE institutions with learning management, communication, and cloud-based data systems • Average number of computers, electronic whiteboards, and other devices available per student at HE institutions • Percentage of HE courses integrating OERs
Risks and Mitigations	• Risk: Coordination and implementation across various HE institutions will be difficult Mitigation: Development of sector-wide plan to include mechanisms and incentives to ensure implementation • Risk: Substantial funding may be needed to upgrade ICT infrastructure Mitigation: Expanding use of OERs may create savings for institutions, as these tools are free and may save faculty time. Initial development of sector-wide plan should include research on PPP models for upgrading infrastructure and potential for sector-wide purchasing to attain lower rates.
Phase of Implementation	Planning to begin in Phase 1 and implementation by Phase 2.

HE5: Mindset – to instil stakeholder understanding of the national purposes and benefits of HE, and promote informed engagement with the system

Almost all of the measures outlined under HE1 to HE4 above are designed to change attitudes and behaviours among stakeholder groups, collectively addressing this objective:

- Reshaping students' and families' consideration of post-school choices through schools-based advisory services
- Building public and employer confidence in the quality of HE provision through accreditation, quality assurance and performance reports
- Growing institutional commitment to delivering high quality student experience and outcomes, by realigning funding incentives, increasing transparency regarding university efficiency and raising awareness about employment outcomes
- Encouraging institutions to take responsibility for their academic and competitive performance by devolving responsibilities within accountability conditions
- Encouraging employers and business leaders to engage with the design and delivery of courses through a range of representational measures.

7 MANAGING DELIVERY OF THE HRD STRATEGY

7.1 Section Summary

While the National Human Resource Development (HRD) Committee was mandated to follow up on the implementation and progress of the HRD Strategy in accordance to the directives laid out in the letter from His Majesty King Abdullah II to His Excellency the Prime Minister, Dr Abdullah Ensour, on 24th March 2015, the HRD Committee recommends that the oversight body is in line with the request of Her Majesty Queen Rania Al Abdullah: a newly created independent entity with the required authority and capacity that can ensure the delivery of the Strategy.

This Section sets out the approach to implementation that the Committee recommends should be adopted to realise the vision set out in this Strategy; an approach that is based on international good practice and the latest experience in reform implementation. It is perhaps the most critical part of the entire HRD Strategy, as without implementation every other part of the Strategy is worthless.

The Section covers:

- A description of the need to have a robust approach to implementation.
- Perspectives from other countries and the broad approaches to delivery that can be adopted to achieve successful implementation.
- A description of the six key requirements that need to be addressed in Jordan for successful implementation:
    - Establish clear authorities – including the establishment of an HRD Reform Board, an Executive HRD Working Group Committee and an HRD Results and Effectiveness Unit.
    - Assign responsibilities for delivery for each programme of activity.
    - Secure and allocate resources including the use of alternative and innovative sources of finance.
    - Engage stakeholder support to ensure ownership, buy-in and communication of the key messages of the Strategy.
    - Monitor progress against plans to collect data and report performance to ensure accountability to governance forums and the public.
    - Evaluate and update plans, amending as required over the life of the Strategy.
- For each of these requirements, a set of guiding principles is set out in this Section followed by recommendations on how each should be applied to implement the Strategy and a set of key projects for implementation.
- A description of the Implementation Roadmap (at Appendix A) and how it has been created and used.

7.2 The Importance of Implementation

Any strategy that is not effectively implemented is worthless. Past efforts at reform in Jordan have often not delivered all the benefits desired from them, in part because of poor implementation. This has generated a strong sense of cynicism among the public about willingness and ability of consecutive governments to commit themselves to strategic long term reforms and strategies. Specific implementation challenges have stemmed from the following:

- **Lack of accountability in the system**: Historically, there have been no top-down and bottom-up mechanisms to promote or enforce accountability throughout the system. This means that individuals are not held to account by their immediate supervisors, nor do they hold those that supervise and manage accountable. In the Ministry of Education (MoE), the recent set up of the Education Quality and Accountability Unit (EQAU) promises to address accountability, but similar units in the Ministry of Labour (MoL), Ministry for Higher Education and Scientific Research (MoHESR), and Ministry of Social Development (MoSD) do not exist.
- **Insufficient communication and coordination within and between ministries with respect to strategies, annual plans and budgeting:** Ministries with responsibilities for HRD do not regularly coordinate to confirm the potential impacts of their own plans and policies on other areas of the HRD system. There is not enough engagement between the parties responsible for an 'agreed' national strategy and Ministry staff with responsibility for drafting budgets and annual executive plans.
- **Institutional capacity**: It is challenging to attract high quality candidates to join the civil service. This results in a gap in leadership capabilities across many departments in key HRD Ministries: MoE, MoL, MoHESR, MoSD, Ministry of Finance (MoF), Ministry of International Planning and Cooperation (MoPIC), Ministry of Health (MoH).
- **Leadership turnover**: Turnover at the Minister-level has seriously compromised policy continuity. New ministers do not always maintain commitments to policy approaches started by their predecessors. This results in short-lived and inconsistent approaches to policy issues and makes it challenging for middle management to regroup and follow through to deliver frequently changing priorities
- **Inconsistent engagement and communication with stakeholders**: After strategies are agreed, there are not sufficiently integrated and focused efforts to build awareness of and support for change initiatives both inside and outside of government. A lack of stakeholder buy-in makes it challenging to make reforms 'stick.'

This emphasis on practical implementation is important in any programme of change but is absolutely critical for human resource development. This HRD Strategy is fundamentally about mobilising changed behaviours – driving change through people. That behavioural change will not be brought about simply because a strategy says that it should be; real change will only happen when individual people (children, parents, students, learners, teachers, civil servants in the Ministries involved in HRD etc.) adjust what they do and how they do it. A real focus on what levers will make that happen is a fundamental enabler of strategic success.

This Strategy has been designed to ensure implementation by following two important principles:

- Designing in implementation from the start. In Sections 3 to 6 of this Strategy which deal with each of the four sub-systems (Early Childhood Education and Development [ECED], Basic and Secondary Education, Technical and Vocational Education and Training [TVET], and Higher Education [HE]), the practicalities of how each set of programmes will be implemented is set out – who will need to own them, the sequencing, and the practical activities and resources required. This approach also considers how strategic objectives can best be achieved – for example by encouraging private sector investment rather than relying on public funding to maximise the prospects for successful implementation, through blended finance instruments by donors, and through civil society involvement (the third sector)
- Creating the environment for delivery within which implementation will be successful. The delivery of the Strategy will require a clear implementation framework, processes, and culture to be put in place – this should define leadership ownership, responsibilities, funding, accountability, monitoring and review. The strategy development framework set out in Section 1 of this Strategy (reproduced below) shows the two levels of delivery requirements at the base of the pyramid.

Figure 7.1: Strategy framework

7.3 Global Best Practice in Implementation

Many countries have grappled with the problem of how best to implement national reform programmes – in human resource development and in other spheres.

Three broad approaches to driving change have emerged, as set out below.

7.3.1 Programmed models

Programmed models use a centrally directed programme of change driven top-down from Ministries or an existing national agency. These models work well where there are clear goals and targets and where there is strong central leadership that front line practitioners respect and follow. It requires the levers of control to be in the government's hands and there to be a focus on outcomes, using data and Key Performance Indicators (KPIs).

However, experience shows this approach can only work where there are excellent execution capabilities; many governments have chosen to supplement these by bringing in programme delivery capability from outside. That typically results in a programme board with overall accountability supported by a highly disciplined programme management function. Where these are absent, programmed approaches are unlikely to be successful.

South Korea and the UK have used programme models successfully. Attempts have been made, not always successfully, to introduce such models into developing countries.

7.3.2 Viral models

Viral models rely on bottom-up behavioural change from children, students, learners, families, teachers and the community to change the system as a whole. These approaches rely on personal responsibility as the driver for change. They have been seen to have the greatest impact in programmes such as numeracy and literacy campaigns where, for example, dynamics have been created in families to make reading to and with children the norm – with major resulting impacts on literacy levels.

Viral approaches rely on high quality advice and guidance, role models and the techniques of behavioural economics to 'nudge' individuals to change their behaviours. Social media has created opportunities to utilise viral models of change much more effectively than was the case in the past. Experience shows however, that while viral models can be good for changing behaviours in the system, they are unlikely to work across the full breadth of issues such as, for example, reforming accountabilities, curricula or assessment.

Finland and Singapore are two countries where viral models have been used very effectively by changing family and individual perceptions of education and the place of education in personal growth.

7.3.3 Added capacity models

Added capacity models have sought to address the need to make implementation happen by creating new organisations which are specifically charged with delivery as an add-on to existing governmental structures. Such approaches have been used effectively to create for example, a step-change in provision by attracting private sector players and creating a regulator with the teeth to enforce standards and bring about operational improvement.

Added capacity models will not be effective for all areas – and careful mapping is required to understand where new capability will be helpful. These approaches rely on an assessment of risk since they are likely to rely on a market and standards and quality assurance regimes rather than on direct management through a line structure. The approach can only work where additional capacity can be created – from private sector companies, social enterprises, non-governmental organisations (NGOs), charities or other providers.

Dubai is a notable example of how the schools system has been fundamentally reformed by creating added capacity from the private sector overseen by effective regulation.

There is no single right method – what works depends upon the context, the legacy of previous initiatives and the cultural norms in the country concerned. Some observations about the specific context and lessons learned of countries referenced above are presented in Figure 7.2 below. These countries have been included because they represent specific examples of the implementation approaches above, but also because several of them, e.g., South Korea and Singapore, were low income countries when they started their reform journeys.

Figure 7.2: Lessons from six global benchmarks

Republic of Korea

Context	Lessons Learned
The first modern approach to using education at the heart of economic growth, across a 60 year period. High investment (7.6% of GDP), high stakes assessments, employment linked to merit and education performance, driving high student and parental motivation, translating into a high spend on private tuition (80% of students attend 'hagwons').	Sustained investment. Meritocratic system to motivate all. Cultural alignment to strong work ethic. Current concerns about creativity and youth unemployment.

Singapore

Context	Lessons Learned
Singapore has excelled by linking its education reforms closely to its economic agenda. It also calibrated its reforms carefully so that in each phase, the goals were clear and could be executed well. Compliance is expected, reforms are sustained and the people involved in them have stuck to the task. For example, its TVET developments involved creating a central new institution working closely with the Government and responsible for curriculum, teacher quality and student outcomes.	Aligned economic and education strategies. Well-executed five-year plans. High level of accountability and compliance. Enduring coalition of reformers. Constant focus on quality of teachers.

Finland

Context	Lessons Learned
Finland is a very high-performer in international assessments such as the Trends in International Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA). It has built its reforms around a high level of devolved authority to schools and to teachers – unlike many other high-performers, it has five-year strategies, but it does not execute reforms by closely managing funding, targets and outcomes. Finland has a strong teaching workforce and it has the advantage that teaching is a favoured career for university-leavers, with 10 applicants for each place. There is strong family support for teaching and learning, based on this country's Calvinist religious roots.	Teaching quality is a major advantage in maintaining high performance. Family and cultural forces can play a very important part in gaining good results. Where there is clarity and local capability, devolved responsibilities can work very well.

United Kingdom

Context	Lessons Learned
In the last 20 years, the UK has been distinctive for introducing many instruments of reform including, for example: literacy and numeracy strategies with documented guidance, new national tests, published school-by-school results, new curriculum standards and competencies, ring-fenced funding for new initiatives and increased powers for inspection in Ofsted and other national bodies. The reforms that have worked have tended to be those that have been adapted and sustained for more than four years. As part of a larger government reform programme, the Prime Minister established a Delivery Unit to facilitate the implementation of initiatives across multiple government entities.	Well-targeted reforms, that combine funding with clear goals and support, can work. Local accountability is a key idea. Difficult to sustain momentum. Risk of overloading the system with too many reforms.

Dubai

Context	Lessons Learned
Dubai has taken a unique path, by promoting private education as a solution to its challenge in providing a large expat population with an attractive and modern education system. In the schools sector, for example, it has used inspection to make individual schools accountable, it has managed fee increases closely and it has used the threat of licence withdrawal to keep control. It has out-performed Abu Dhabi and Doha by ensuring its key systems are quick, efficient and impactful and – with few exceptions – it has not over-controlled the market it had allowed to grow.	Accountability is a major instrument of reform, and targeted inspection helps. Central funding is not the only way - the private sector can be a valuable investor and enabler. Disciplined focus on what is most important. Alignment of education strategy to economic model for the City.

Poland

Context	Lessons Learned
Since 1999, Poland has been a remarkable success story in education reform having improved more quickly than its regional competitors in Europe despite spending less than the countries it has overtaken. It now scores above the USA, France, Germany, Sweden, and the UK in PISA. Structural change to reducing the elementary tier and adding a three year junior high track to give students extra time before choosing a path to vocational or higher education was accompanied by changes to the curriculum and qualifications. The roots of this success are attributed to demands from the people – a new political environment in the 1990s after the post-communist era resulted in an appetite for change in economic and cultural life which translated into demands for better education.	Local autonomy and decision making was key - but targeted government intervention was required for poorer areas and in teacher training. Willingness to make radical changes to tier structures paid off in improved student outcomes. Pressure from parents and families was key to spurring action.

An approach is therefore proposed which draws on all of these methods and takes specific account of the unique conditions in Jordan. The model will include a mix of change levers:

- Top Down – policy mandates or investment initiatives.
- Bottom Up – local responses to devolved powers and duties.
- Added – regulation, enabling measures and public private partnerships.
- Viral – incentives and campaigns to change behaviours.

Those change levers will be aimed at four aspects of the system to bring about change:

- Structures – for example new or strengthened agencies or institutions.
- Systems and processes – for example, new quality assurance processes, monitoring and evaluation and new management information systems.
- Capacity building – for example teacher training, or private provision to supplement public ones when the government cannot meet the full demand.
- Behaviours – for example devolving accountabilities, or changing attitudes.

7.4 Lessons Learned from Previous Jordanian Implementation Efforts

The Prime Minister's Delivery Unit

Jordan should take inspiration not only from international benchmarks, but from its own experiences of strategy implementation which achieved some degree of success – though short-lived. One such example is the Prime Minister's Delivery Unit which was set up by a former Prime Minister to restructure and strengthen the role of the Prime Ministry within government, aiming to improve its efficiency as a guiding, supervising and monitoring lead. He established a nine-person Delivery Unit structured around seven priorities (the pillars of the government's plan). The Delivery Unit was designed to do three things: 1) provide information and analysis; 2) provide policy recommendations and progress reports on prioritised initiatives in the government plan and 3) coordinate ministry and government efforts to implement projects and intervene when needed to remove obstacles and resolve issues.

The diagram below shows the role of the Delivery Unit in implementing the government plan:

Figure 7.3: Prime Minister's Delivery Unit

Lessons learned: successes and considerations for the future

During its first year, the Delivery Unit was considered successful in establishing a multi-level uninterrupted delivery chain. This was achieved by:

- **Keeping executive decision makers engaged**: The Prime Minister and the Council of Ministers regularly received concise progress reports highlighting where decisions were needed.

- **Using existing structures and processes to hold Ministers to account**: The Prime Minister used Council of Minister's meetings to review progress and had the Delivery Unit provide him with separate assessments of each ministry's performance in terms of plan implementation.
- **Applying pressure through public progress reporting**: An official website provided the public and the media with progress reports which showed which ministries were delivering on their responsibilities under the plan.
- **Resolving implementation challenges coordinating and allocating resources**: Reporting to the ministerial committees and following up helped to resolve issues quickly.

Unfortunately, progress stalled in the years following 2010. Today the Delivery Unit still nominally exists, but the processes and routines it established are no longer in place.

Because the Delivery Unit did have some success, the concept should be considered again (see below, 7.5.1). Some key consideration for the structure of any future delivery unit should be kept in mind to avoid the same challenges:

- **Link to continuous structures**: Political change is inevitable over the course of 10 years. To survive the changes of government and shifting priorities, link any delivery unit, including possibly financially, to an authority that transcends the mandate and lifespan of any given government.
- **Personal commitment from the Prime Minister**: Delivery Unit staff should meet monthly or bi-monthly with the Prime Minister (PM) to gain the PM's personal support.
- **Build effective working relationships with Ministers and the civil servants responsible for implementation**: The Unit must gain the trust of the Ministers and senior civil servants in ministries by helping to resolve implementation bottlenecks, not just monitoring. This will also help to embed new processes, routines and culture in the system.
- **Focus on coordinating with ministries responsible for planning and resource allocation**: To ensure delivery of results, the Unit has to coordinate closely with MoPIC, MoF, Ministry of Public Sector Development (MoPSD), and the Civil Service Bureau (CSB).

7.5 Framework and Considerations for Successful Implementation

Best practice for establishing an environment in which successful implementation can occur for the reform of Jordan HRD system is built around six key requirements, as shown in the diagram below.

Figure 7.4: Requirements for successful implementation

Each of the six requirements is considered in turn below, with a set of governing principles and then a set of recommendations for each.

7.5.1 Establish clear authorities

Guiding Principles
• There must be independent oversight and drive for delivering the strategic vision. The oversight entity that holds those charged with implementation accountable to agreed timelines and that has authority that transcends the mandate and lifespan of any given government to ensure it is sufficiently empowered to talk directly to Ministers. • The oversight entity set up to facilitate results is different from the implementing agencies of current ministries. • The leadership of the Strategy must be sustained for the long term and must survive changes of governments and individual Ministers. • There must be a mandate to direct strategies and campaigns across systems. • There must be clear accountabilities for adhering to the vision and monitoring Key Performance Indicators (KPIs) and targets, with regular public reporting. • Executive capacity to carry out duties and plans must be put in place.

Recommendations

The Committee recommends:

- The creation of a small **HRD Reform Board** to be set up with the responsibility and accountability for delivery of the Strategy. This HRD Reform Board would comprise perhaps five to seven highly respected individuals selected to be the long term custodians of the vision and to ensure that implementation results in sustained positive change for the Kingdom. The Board will be accountable via the Prime Minister to His Majesty King Abdullah II. It is recommended that Board members should have both private sector and prior government experience. Ministries and other agencies will be accountable to the Prime Minister, who will work closely with the HRD Reform Board, to monitor implementation for delivery of their elements of the Strategy. The HRD Reform Board should meet on a quarterly basis.
- The creation of an independent **HRD Results and Effectiveness Unit** to provide the HRD Reform Board with full-time delivery capacity. It will consist of a lean full-time team and will operate as an extension to the Board working on its behalf to coordinate, build capacity, and help influence and change the behaviour of the Ministries and other organisations which are charged with delivery. While it reports technically to the Board, it will report administratively to the Prime Minister. It will also manage stakeholder engagement and communications activity including regular public presentation of data on progress against the Strategy. The Unit will include a monitoring and evaluation function and an analytical function to assess progress and benefits realisation. In addition, and to ensure that this Unit is dedicated to delivery not just monitoring, the Unit should have the ability to resolve implementation bottlenecks and constantly seek solutions with implementing Ministries and other stakeholders.
- The creation of an **Executive HRD Working Group Committee** to coordinate delivery of the Strategy. This body will consist of executive level sponsors (Minister-level and heads of other entities) from the key Ministries and other stakeholders charged with delivery. TheCommittee's role will be to manage implementation against programme plans agreed by the HRD Reform Board, and approved by the Council of Ministers. The Executive HRD Working Group Committee will work closely with the HRD Results and Effectiveness Unit to identify the requirements and support needed to deliver HRD Strategy projects. It will be accountable to the Prime Minister. Reporting on progress should be monthly during the first two years of reform, then every two months. To ensure institutionalisation, the Executive HRD Working Group Committee should have the status of ministerial committee - which is also allowed to have members from outside the government (i.e. the private sector and the civil society).

The delivery structure is shown below in Figure 7.5.

Figure 7.5: Recommended delivery structure for HRD Strategy implementation

This structure will provide independent ownership, strong delivery capability and a sustainable coalition for delivery.

7.5.2 Assign responsibilities for delivery

Guiding Principles
• Effective and authoritative leadership structures must be put in place for each of the four HRD sub-system areas. • Stakeholder interests must be aligned around a shared vision and agenda for change in each area. • Accountability and responsibility for delivering agreed reforms and campaigns must be assigned. • Resources and delivery organisations must be put in place where they do not currently exist. • Good practice programme management and assurance arrangements must be put in place.

Recommendations

The Committee recommends that:

- Each of the strategic programmes should be set up by either proposed new or reconstituted umbrella organisations identified in this Strategy as responsible or by working with the Executive HRD Working Group Committee to determine the appropriate entity. New entities proposed include:
    - A Joint ECED Committee
    - The Skills Development Corporation (SDC)

- Programme and Project budgets should be agreed, where necessary cutting across organisational boundaries (to be overseen by the HRD Results and Effectiveness Unit and Executive HRD Working Group Committee).
- Project level governance should be initiated for each project outlined in this Strategy at the point of initiation according to the Implementation Roadmap.
- Programme management arrangements should be put in place – depending on the scale and nature of the programme in order to be fit for purpose in each case – together with arrangements for engaging with appropriate stakeholders.
- Some programmes and projects could be implemented and delivered by the private sector and civil society, especially those in the ECED sub-system.
- Arrangements to report project progress should be created with onward reporting to the Executive HRD Working Group Committee and HRD Reform Board.

7.5.3 Secure and allocate resources

Guiding Principles
• Strategic commitments to reforms must be backed with assured funding. • Investments must be justified by clear business cases that lead to real benefits. • Not all proposed changes entail additional funding – current resources can be mobilised more effectively. Behavioural changes may be far more cost effective than spending programmes. • Budget and benefits management are central to successful implementation.

Recommendations

The Committee recommends that:

- Funding should be put in place for each of the agreed programmes of activity and a funding plan for the Strategy put in place – this should be agreed by the Council of Ministers upon recommendations from the HRD Reform Board and communicated to the MoF, MoPIC and the donor community.
- Existing budgets should be repurposed to support reform where possible.
- Prospective donors should be engaged in appropriate parts of the Strategy, with a view to defining projects and realising benefits in ways that ensure alignment of donor funding with the national HRD Strategy.
- Innovative sources of funding (e.g. Blended Finance) must be considered (see below) and pilots put in place to test the use of such funding methods.
- Private sector and civil society involvement must be encouraged – for example in relation to areas of the Strategy where increased capacity is required.

The importance of effective resource allocation

To implement any system-wide strategy effectively, coordination and rationalisation of resources (current and otherwise) is imperative, regardless of the current levels of efficiency and effectiveness of public spending. Resource decisions should be made using consistent criteria that will help to ensure resource allocations and funding disbursement contribute to the priorities of the HRD Strategy. Characteristics of current spending and resource allocation indicate that these decisions are not coordinated and consistent enough, and demonstrate why it is especially important to develop an integrated funding approach for the HRD Strategy. At the highest level this is due a lack of an agreed framework amongst Ministries involved in HRD with regard to resource allocation. Some specific challenges are summarised below.

For ECED, multiple Ministries are involved in delivering services for early childhood, but there is no coordinated approach to reviewing spending across all of these activities to determine where there may be duplication of effort, or to assess overall spending on ECED.

With regard to basic and primary provision, a World Bank review shows that overall expenditures are roughly comparable to Organisation for Economic Co-operation and Development (OECD) levels, and the budget commitments to education are substantial, e.g., roughly equivalent to defence spending[1]. However, there are certain elements which were out-of-step. Specifically, worker compensation constitutes 92.3% of all recurrent spending, leaving only 7.7% for non-wage line items such as rent, building maintenance, cleaning, and direct input to teaching. In OECD countries, the average share of compensation in total non-recurrent spending was 78.9% with 21.1% for non-wage inputs[2]. Performance indicators for this stage such as declining levels in PISA and TIMSS performance suggest that this may not be working well, and that Jordan is not maximising its return on investment and could explore alternative ways of deploying existing resources.

In higher education, there is a similar issue in that there is a relatively high level of funding relative to GDP. However, universities still struggle to meet their operating expenses and the mix of funding is problematic. The system is overly reliant on private sources comprised mostly of student fees, which has a negative impact on quality.

In contrast, in TVET overall public spending is low by international comparisons (0.3% of GDP vs. 1.5-2% observed international practice) and there are no effective disbursement mechanisms and allocation framework for the funds which are available.

Whilst the HRD Strategy includes projects to address some of the specific issues described here, this range of resource allocation challenges suggests that examining approaches across the system is greatly needed. The HRD Reform Board and the Council of Ministers should develop an approach to resource allocation which defines objectives and principles by which decisions should be made. This would help ensure all HRD resource allocation is done using the same criteria across government and that decisions are made with system-level rather than Ministry-level priorities in mind.

Summary of blended finance approaches for the HRD Strategy

As seen with other social issues like employment, transportation and social welfare, governments are increasingly looking to the private sector and the civil society to complement the public sector in both financing and delivery of services. Impact Investing, a financial mechanism that seeks both financial and social return, has become increasingly popular over the past decade. Specific version of Impact Investing and public private partnerships (PPPs) include:

- Social impact bonds (SIBs)
- Development impact bonds (DIBs)
- Debt conversion development bonds (DCDBs)
- Loan buy-downs
- Diaspora bonds.

In 2014, the global market for these forms of alternative public-private investments was estimated to be valued at US$ 46 billion, of which US$ 32 billion was invested in developing countries[3]. There are opportunities for Jordan to leverage these kinds of mechanisms for development financing to provide the requisite capital investment, private sector rigour, and performance management experience to significantly advance the objective of expanding provision and quality at all levels of education. Various forms of Impact Investing could be introduced in ECED, Basic and Secondary Education, and TVET (see the Section for each sub-system for details). SIBs, DIBs and debt conversion development bonds represent the most promising mechanisms for Jordan at the current time. These mechanisms could be further reviewed (building on work that has already been completed as in the case of debt conversion development bonds) and then introduced through pilot projects to test their suitability and effectiveness before the projects are scaled up to national levels.

[1] World Bank, 2015.

[2] Ibid.

[3] Gustafsson-Wright, E. et al., 2015.

Social impact bonds

SIBs, also called Pay-For-Success (PFS) in the U.S. and Social Benefit Bonds (SBBs) in Australia are one form of innovative funding mechanism that have been used in developing countries to tap external resources to facilitate educational initiatives. Figure 7.6 gives a visual representation of the system, where the (non-governmental) investor provides the initial capital to start a project. The government then repays the investor contingent on the attainment of pre-determined targeted outcomes. Where a donor agency is the outcomes funder instead of government, the mechanism is referred to as a DIB.

Figure 7.6: Social impact bonds model[4]

SIBs have proved to be successful in:

- Shifting the focus of programmes to measurable outcomes rather than inputs and outputs.
- Fostering effective collaboration across the often disparate stakeholder groups including government, government agencies, and between public and private sector.
- Building effective systems of monitoring and evaluation.
- Establishing a process of adaptive learning and process improvement.

Challenges and limitations of SIBs include the:

- Considerable cost and complexity of arranging the deals.
- Requirement for the correct legal infrastructure and political environments. SIBs invoke public-private partnership legislation, which requires highly stringent measures and extensive pre-qualification process that are administered by the government. The complexity arises from the fact that SIBs constitute an inherent contingent liability to government as they expose it to fiscal risk resulting from a potential future public payment obligation to the private party in the project.
- Inability, thus far, for a SIBs programme to achieve scale (e.g. national).

[4] Gustafsson-Wright, E. et al, 2015.

International best practice sets four criteria for SIBs to be successful. These are shown in Figure 7.7 below.

Figure 7.7: International best practice SIB criteria for success

Debt Conversion Development Bonds (DCDBs)

DCDBs are a form of traditional debt conversions, or debt swaps, that are used when donors wish to spread the cost of financial assistance over a period of time to exploit the capacity of the beneficiary government to bring forward the benefits of assistance through issuing domestic bonds. In simple terms, DCDBs are domestic bonds issued by governments of developing countries, where the future debt service payments are matched by the fiscal space created by creditors forgoing future debt service payments[5]. They allow donors to spread the costs of financial assistance and beneficiaries to front-load the benefit.

There are a set of conditions required for DCDBs to be successful:

- The beneficiary country has outstanding debts with creditors who are willing to have these obligations converted to DCDBs.
- The beneficiary government is expected to service these loans.
- There is an immediate need for a significant increase in social and economic development spending.
- The country has the ability to effectively utilise the significant increase in funds.
- There is sufficient demand from the domestic investor base to absorb the bonds.
- The government has established its ability to issue long-term debt at reasonable real fixed interest rates.

Jordan's financial sector is sufficiently developed to issue DCDBs. There is consistent demand for the Central Bank of Jordan's treasury bonds. A study by the US-based Ascending Markets Financial Guarantee Corporation (AMF), formerly known as Affinity MacroFinance, supported by the Open Society Fund and UNESCO examined the possibility of piloting a DCDB project in Jordan. It considered how DCDBs can be used to mobilise domestic savings to fund development and highlighted the suitability of DCDBs to expand funding in the education sector in Jordan[6]. If one or more of Jordan's creditors were to forego US$ 15 million in debt service on some of their loans over the next ten years, the Government would have the fiscal space to issue US$ 100 million in 10-year dinar-denominated bonds that could be used to fund sections of the HRD Strategy programme.

[5] Bond, D., 2012.

[6] Ibid.

Diaspora bonds

Diaspora bonds are a form of bond marketed to their expatriated citizens. These investors are often willing to accept lower rates of return and have a greater tolerance for uncertainty than generic investors due to nationalistic ties to the country. Diaspora bonds tend to be more successful where a receiving country has a large first generation expatriate community in middle to high-income countries. Countries such as India have been very successful in using diaspora bonds to finance public infrastructure programmes.

According to the Ministry of Foreign Affairs and Expatriates figures, there are some 750,000 Jordanians living abroad[7]. First and second-generation Jordanians living and working abroad could be offered a saving instrument – a diaspora bond – marketed only (or on better terms) to migrants. Other Jordanians abroad may be interested in purchasing the bond out of a sense of patriotism and a desire to help their home country grow and prosper. As an illustration: if one in every 20 of Jordan's diaspora members could be persuaded to invest US$ 1,000 in Jordan per year, one in every 500 could be persuaded to invest US$ 10,000 in Jordan every year, and one in 10,000 invest US$ 50,000 every year, Jordan could potentially raise an additional US$ 55-60 million a year for education financing. Some larger diaspora investors could potentially invest significantly more than US$ 50,000.

Loan buy-downs

Loan buy-downs are a mechanism whereby a third party buys-down all, or part of, either or both the interest and the principal of a loan between a country and a lender, thus releasing the borrowing country from some or all of the future repayment obligations[8]. They are most successful when they are used to induce a country that would not otherwise borrow to seek a loan to fund large public projects. They are most commonly used in low-income countries that are unable to take on more debt but that are in serious need of external support to finance social services like education. Examples of these countries are Afghanistan, Burundi and Chad. Loan buy-downs have also been used effectively in countries on both sides of the International Development Agency/International Bank for Reconstruction graduation threshold that have major basic education challenges. Examples of these countries include Angola, India, Nigeria and Sri Lanka. Loan buy-downs have proved particularly useful where grant aid has declined and additional sources of funding are required to fill the gap.

Loan buy-downs could also be used to source additional funds for educating Syrian students. Jordan is receiving loan buy-downs to finance initiatives aimed at providing jobs for Syrian refugees and this could be expanded.[9] Educating the Syrians in Jordan as registered refugees or displaced persons is an international responsibility but Jordan has thus far borne the majority of that burden. Loan buy-downs could be used as a means for donors to partly fulfil their international obligations to support the education of Syrians. In this model, donors would agree to loan buy-downs to enable Jordan to borrow funds for international financial institutions, but do so through a cost-sharing mechanism whereby the loan repayment (principal and interest) are the joint responsibility of Jordan and donor countries. This would ensure Jordan was not paying for the education of Syrian students alone. However, this mechanism still results in Jordan repaying the principal of the loan and therefore still carrying the majority cost of the global public good of educating Syrians; it should therefore not be sought as a main source of finance.

Examples of where the suggested finance mechanisms have been introduced

ECED –SIBs

A SIB programme was set up in Chicago, USA in 2014 to establish the Child-Parent Centre for Pay for Success Initiate. The initiate aimed to create a Child-Parent Centre (CPC) programme to work directly with parents and children through half-day pre-Kindergarten classes to improve educational outcomes. The Initiative targeted 2,600 low-income four year old children in eight sites across Chicago. Under the SIB, Goldman Sachs' Social Impact Fund provided an initial upfront capital commitment of US$ 16.9 million, Chicago Public Schools (CPS) was the service provider, and the City of Chicago Office of the Mayor (COM) and CPS were the outcome funder. CPS and COM agreed to reimburse Goldman Sachs for the initial investment, plus additional payments of up to 6% of the investment, if the agreed set of outcomes were met and validated by the independent validator. The outcomes were measured using three metrics:

[7] Royal Hashemite Court, Media and Communications Directorate, 2015.

[8] Results for Development Institute, 2013.

[9] World Bank, 2016.

- Decrease in the need for special education (remedial education) services in Kindergarten through to the 12th Grade.
- Increase in Kindergarten readiness as measured using a standard assessment tool.
- Increase in 3rd grade reading scores.

Schools – SIBs

The Municipality of Lisbon introduced a SIB programme in January 2015 designed to target Primary school grade repetition and drop-out rates in selected schools. The SIB funded a 30-week computer programming course for struggling students. The course was designed to be integrated into the school curriculum. A for-profit social enterprise provided the upfront capital commitment required to develop the course, purchase the equipment required (e.g. computers and robots used in the classes) and pay the trainers. The Municipalities agreed to pay the social enterprise variable rates of return on their investment based on the improvement of the pupils measured in two metrics: logical thinking and school performance. Payments for logical thinking and problem solving skills improvements are measured and paid after one year. Payments for performance on national exams are measured and paid at the end of 20-month timescale[10].

Schools – DIBs

The Children's Investment Fund Foundation (CIFF) introduced the world's first Education DIB in 2015. The project was designed to improve education and learning outcomes for 18,000 children in government primary schools in the Indian state of Rajasthan. UBS Optimus Foundation (the philanthropic arm of UBS bank) provided the initial investment of INR 17 million for the programme to be introduced through the service provide, Educate Girls. Under the DIB, CIFF will reimburse UBS Optimus for providing the initial finance, plus additional payments if the agreed set of enrolment and learning outcomes are met and validated by the independent evaluator, IDinsight[11].

Institutional and political considerations

Whilst multiple mechanisms could work in Jordan, ultimately political will and a tolerance for risk on the part of the MoF, Central Bank, donors and investors supersede any other requirement for the adoption of any of these new approaches. (The AMF report noted, for example, that during discussions with two donors about DCDBs there was interest in principle.) The MoF has demonstrated interest in these new approaches. Beyond engagement in the AMF work, it has established a PPP law, is working on initiatives related to development bonds, and is exploring Islamic sukuk.[12] For any mechanism pursued, the HRD Reform Board and HRD Results and Effectiveness Unit should engage with the relevant parties as soon as possible in anticipation of the time it could take to agree on the conditions for a pilot.

7.5.4 Engage stakeholder support

Guiding Principles
• Successful transformation strategies are built on changed stakeholder behaviours – implementation programmes are only meaningful if they result in changes to behaviours. • The HRD reform programme must actively engage all relevant stakeholder groups so that stakeholder interests, concerns and benefits can be understood and addressed. • Engagement campaigns and communications must be backed by capacity building, incentives and regulation.

[10] Gustafsson-Wright, E. et al, 2015.

[11] CIFF, n.d.

[12] Meeting with MoF, April 2016.

Recommendations

The Committee recommends that:

- Engagement on an on-going basis should be sought with stakeholders across the system; the HRD Effectiveness Unit should operate a specific function to have ownership of this task.
- Specific targeted arrangements should be put in place by the HRD Results and Effectiveness Unit to engage with current and potential donors, NGOs, private sector providers and strategic partners.
- A communications programme should be initiated to create on-going understanding, buy-in and support for the Strategy implementation.
- Key examples of projects that have delivered successfully should be widely promoted to build momentum and an expectation of success.

A framework for communications has been created to define the key themes and approaches that need to be used. The key theme of this is that the HRD Strategy sets out the long term aspiration to drive growth in economic prosperity and stability for Jordan by allowing every learner who enters the education system to realise their true potential – 'helping our children become the best they can be'. The plan will:

- **Focus on the critical**: Sitting at the heart of everything that is communicated is the need to support the development of young people and their teachers, carers and tutors.
- **Influence public perception and belief**: The communications approach will focus on 'the real' and not abstract policies and initiatives.
- **Build trust in the system whilst acknowledging the realities of the current system**: The announcement of commitments will be supported by factual examples of tested initiatives that build trust and provide examples of strategic quick wins.
- **Meaningfully engage**: The messaging will be conversational and in a tone that recognises the personal challenges of improving the whole educational environment.

The communications activity will include an integrated approach to channels – utilising press and broadcast media, expert voice interviews, and social media. Messages will be created according to the audience to communicate the benefits and rationale for reforms or to encourage changes in behaviour. For example, a message around an ECED reform to increase awareness about the importance of parents reading and singing to children might be, 'Parents and caregivers are teachers too. The activities we do with our young children are very important and help lay the foundation for developing advanced skills later on in their lives.'

7.5.5 Monitor progress against plans

Guiding Principles
• Ambitious but achievable KPIs and targets should be selected. The KPIs should be SMART (specific, measurable, achievable, relevant and timed). End-line targets (in this case to 2025) should be complemented by interim milestone targets. • Clear executive accountabilities should be assigned for delivering against each target and programme plan. • There should be honesty and transparency in publicly reporting progress against KPIs and programme implementation plans to provide an early warning system for challenges or unplanned delays.

Recommendations

The Committee recommends that:

- A small number of ambitious but achievable targets and KPIs should be agreed for each strategic objective, with agreed accountabilities. An initial set of targets and KPIs has been proposed as part of this Strategy. They should be reviewed, baselines confirmed and built into the detailed M&E plan at the start of implementation.
- Delivery plans for all the programmes under each strategic objective are developed and monitored on a quarterly basis.
- Processes should be put in place by the HRD Results and Effectiveness Unit to collect and report on each KPI providing data for use by the Executive HRD Working Group Committee and HRD Reform Board.
- The HRD Results and Effectiveness Unit should create a public website for the HRD Strategy that produces regular transparent updates on progress of the Strategy which includes a dashboard showing performance against targets and KPIs and key benefits delivered.

7.5.6 Evaluate results and update plans

Guiding Principles
• Early warning, problem solving and intervention plans for shortcomings against targets and the implementation plans of programmes should be put into place. • Objectives, targets, and programme plans must be regularly updated where necessary to remain relevant. • Benefits realisation should be actively monitored.

Recommendations

The Committee recommends that:

- The HRD Results and Effectiveness Unit should conduct studies to demonstrate progress in relation to the delivery of outcomes and benefits from implementation of the Strategy.
- Periodically, the HRD Results and Effectiveness Unit should commission independent external research to assess the impact of the Strategy on the HRD systems.
- The HRD Reform Board and the Executive HRD Working Group Committee should regularly consider whether there are changes in external or contextual factors which drive or enable adjustments to the Strategy or to individual programmes of activity. Likely examples of such factors would be changes in refugee flows, changes in economic circumstances, the availability of new technologies, or the actions of other countries.
- In year four and again in year seven of the 10-year HRD reform, a full review of the Strategy should be conducted to assess whether it is still meeting requirements. If needed, new research can be commissioned to support that. A refreshed Strategy document should be issued following each three year review.

7.6 Implementation Projects

The Committee recommends the following projects to lay the successful foundation for implementation. Whilst there will be much work to be done beyond these initiatives, this set has been identified as critical to the successful launch of Strategy implementation and directly address the challenges of past reform efforts described in Section 7.2. These projects align to four strategic objectives:

IMP1	Establish structures with the necessary autonomy, authority and accountability mechanisms to drive forward the implementation of the HRD Strategy.
IMP2	Create a cadre of capable civil service staff through training and recruitment to make delivery sustainable.
IMP3	Engage internal and external stakeholders to ensure coordination of efforts and generate public support for the Strategy.
IMP4	Ensure that the HRD Strategy has sufficient financial resources and that the country's resources are aligned with the HRD Strategy.

IMP1: Establish structures with the necessary autonomy, authority, and accountability mechanisms to drive forward the implementation of the HRD Strategy

Project Title	**IMP1.1**: **Create an HRD Reform Board**
Objectives	Create an independent, lean and appropriately empowered body responsible for driving the implementation of the HRD Strategy.
Activities	Appointment of the first Board members after the body has been established, it will then be necessary to define the remit of the Board which should include, at a high level: • Oversight of the Strategy implementation. • Oversight of the HRD Results and Effectiveness Unit (See IMP1.2). • Relationship to the Prime Minister/Cabinet and the Executive HRD Working Group Committee (See IMP1.3). • Responsibilities of the Board. • Reviewing progress and reassessing the strategic vision for HRD at predefined intervals (year four, year seven, year 10). • Frequency of rotation of members of the Board. • After this a plan for the first year of activities should be developed and the first meeting of the Board convened.
Responsibilities	• The Board would ultimately then be accountable to an authority that transcends the mandate and lifespan of any given government.
Current Status	Does not exist
KPIs	The target date for the HRD Reform Board to be established and operational should be as soon as possible after the acceptance and implementation of the Strategy.
Impacts and Mitigations	The establishment of a small Board with close relationships to but autonomy from government will provide consistency in the vision for the Strategy regardless of the impact of political events in the Kingdom.
Phase of Implementation	Phase 1

Project Title	**IMP1.2: Create the HRD Results and Effectiveness Unit**
Objectives	Create an independent and appropriately empowered unit responsible for driving the implementation of the HRD Strategy.

Activities	• Define organisational remit which should include, at a high level:
	  ○ Ensuring that each sub-sector (ECED, G1-12, TVET, HE) has a detailed plan to achieve its strategic objectives and progress against its KPIs.
	  ○ Approach to coordinating cross-Ministry or agency budgets when appropriate.
	  ○ Monitor progress against each goal and report it internally and publically (e.g. via a public dashboard).
	  ○ Evaluation and follow up to maintain pace and schedule of delivery.
	  ○ Commissioning of 3rd party evaluations on specific reform elements.
	  ○ Intervention to resolve implementation bottlenecks and challenges.
	  ○ Capacity building to develop skills needed to lead and deliver change across all levels of civil service staff in Ministries.
	  ○ Work with Ministries to align planning and budgeting with HRD Strategy priorities.
	  ○ Communication and relationship management.
	• Confirm organisational structure. Initial proposal for staff of 12 to include Director, Deputy Director, goal leads for ECED, G1-12, TVET, HE, Implementation Programmes, Data analysts (x2), Communications and Outreach, Website Administrator, and Administrative Support.
	• Define roles and responsibilities.
	• Define knowledge skills and abilities required for roles and responsibilities.
	• Recruit staff to roles.
	• Design detailed plans for each sub-sector to achieve strategic objectives, including capacity building.
	• Design process to align annual planning and budgeting processes in Ministries with HRD Strategy priorities.
	• Design detailed plans for monitoring and evaluation systems and processes to include internal and external reporting, including how to partner strategically to monitor implementation progress, e.g. through relationships with civil society organisations.

Responsibilities	• HRD Reform Board and the Prime Minister. The HRD Results and Effectiveness Unit should be located at the office of the Prime Minister.
Current Status	Does not exist
KPIs	• Organisational remit defined as soon as possible after the establishment of the HRD Reform Board • Organisational structure and staff in place within 3 months of the establishment of the HRD Reform Board • Detailed plans for each subsector and M&E within 6 months of establishment after HRD Reform Board
Impacts and Mitigations	• Risk: The functioning and empowerment of this unit needs to be shielded from any change in PM priorities • Risk: A conflict of interest and lack of independence if the HRD Results and

	Effectiveness Unit funding comes from any line ministry involved in the implementation of the HRD reform Mitigation: Support, including costs and salaries for Results and Effectiveness Unit staff should come from an authority that transcends the mandate and lifespan of any given government to ensure continuity and to ensure Unit independence and ability to function effectively
Phase of Implementation	Phase 1

Project Title	**IMP1.3**: **Create the Executive HRD Working Group Committee**
Objectives	Create an executive level Working Group Committee of key Ministers and other stakeholders charged with delivery.

Activities	• Define organisational remit which should include, at a high level:
	  ○ Managing implementation against programme plans agreed by the HRD Reform Board and which are approved by Cabinet.
	  ○ Work closely with the HRD Results and Effectiveness Unit to identify requirements and support needed to deliver HRD Strategy programmes.
	  ○ Confirming representation from Ministries and other implementing stakeholders and agencies.
	• Convene first meeting of the Executive Working Group Committee to confirm implementation priorities and set initial planning in motion.

Responsibilities	• The Prime Minister with input from the HRD Reform Board.
Current Status	Does not exist
KPIs	• Organisational remit defined as soon as possible after the establishment of the HRD Reform Board. • First meeting of Executive HRD Working Group Committee takes place as soon as possible after establishment of HRD Reform Board and HRD Results and Effectiveness Unit.
Impacts and Mitigations	• The Executive Working Group Committee is necessary to enable effective coordination across the organisations involved in implementation and delivery. It will provide a channel for Ministers to provide their perspective on implementation and give input into the future direction of the Strategy.
Phase of Implementation	Phase 1

Project Title	**IMP1.4: Evaluate the effectiveness of the MoE Education Quality and Accountability Unit and draw from lessons learned to build accountability units in the MoHESR, MoL and MoSD**
Objectives	Refine and develop the concept of a unit that effectively promotes greater accountability throughout all levels of the HRD system within the remit of each Ministry. Serve as the main liaison in each of these Ministries for the independent HRD Results and Effectiveness Unit. Be responsible for the monitoring and evaluation of Jordan's HRD as provided through each Ministry.

Activities	The recently established EQAU at the MoE can be used as a pilot to design accountability units at the Ministries of Higher Education and Scientific Research, Labour, and Social Development.
	Since the unit was just launched, the HRD Results and Effectiveness Unit should assess its first six months to one year of operations with a view towards working with other Ministries to launch similar units using lessons learned from early operations of the MoE EQAU.
	The project can be split into two phases: evaluation and design.
	Phase 1: Evaluation and planning
	• Work with relevant donor agencies to evaluate first year of operations and document lessons learned.
	• Work with each Ministry to create proposed timeline for development of accountability unit.
	Phase 2: Design
	• Using lessons learned from the MoE EQAU, design accountability units for other Ministries according to agreed timeline.
	• Define the organisational remit for each accountability unit based on the MoE model to include:
	  ○ Evaluating institutions that comprise the sector at three levels: institutional/provider, directorates, and central offices.
	  ○ Supporting the development of the accountability processes.
	  ○ Building the capacity of the personnel in each unit.
	  ○ Develop and periodically review the accountability standards and KPIs.
	  ○ Design accountability evaluation tools and instruments.
	  ○ Provide recommendations and inform reform policy and strategic planning based on the findings of the evaluation conducted.
	  ○ Develop an accountability database.
	  ○ Conduct quarterly and annual reports for Ministers to use in planning activities.
	  ○ Provide consultation and recommendations to improve the education system.
	  ○ Conduct awareness campaigns among implementing Ministries' and agencies' staff.
	• Confirm organisational structure.
	• Define roles and responsibilities.
	• Define knowledge, skills and abilities required for roles and responsibilities.
	• Recruit staff to roles.
	• Define organisational policies and procedures.

Responsibilities	• Each accountability unit would report directly to the respective Minister in that Ministry and coordinate with the HRD Results and Effectiveness Unit.
Current Status	In December 2015 a law/regulation was passed creating the MoE EQAU. No other such entities exist in MoHESR, MoL, MoSD.
KPIs	• Evaluation and reporting of lessons learned completed at end of 2016 or mid 2017 depending on when Strategy implementation begins. • Accountability units fully implemented and operational at 1 additional ministry by Year 1.5 of Strategy implementation and at 2 additional ministries by end of Year 2 of the Strategy implementation.
Impacts and Mitigations	• Risk: Resistance from Ministers due to perceived imposition of organisational structure from outside. • Risk: Commitment to implementation of planned changes if Ministry leadership does not remain the same. Mitigation: The directive for the establishment of the accountability units should come from the Prime Minister upon recommendation from the HRD Results and Effectiveness Unit.
Phase of Implementation	Evaluation: Phase 1 Design of other accountability units: Phases 2-3

IMP2: Create a cadre of capable civil servants through training and recruitment to make delivery sustainable

Project Title	**IMP2.1: Design and implement a capacity-building plan for civil service leadership and delivery staff**
Objectives	Build the skills needed to implement and drive change for leadership and delivery staff in Ministries to make implementation of reforms more sustainable.

Activities	• Create knowledge, skills, and abilities matrices to define capability requirements for the relevant roles across Ministries.
	• Assess gaps against capabilities required.
	• Assess total number of staff impacted.
	• Create development plans according to role type to include activities/resources such as:
	  ○ Coaching and mentoring.
	  ○ Change management and technical training (in-person and online).
	  ○ Toolkits by role.
	• Communities of practice and knowledge sharing (in-person and electronic).
	• Design training and development activities.
	• Deliver training and development activities.

Responsibilities	• HRD Results and Effectiveness Unit and Human Resource Policy units in Ministries and CSB.
Current Status	No comprehensive development plan for Ministry staff related to implementation exists.
KPIs	• Completion of assessment and planning by month 8 of Strategy implementation. • Number of staff trained. • Survey results indicating adoption of practices in trainings.
Impacts and Mitigations	• Risk: Ministry staff see the development plans as extra work and resist participating. Mitigation: Clearly communicate the benefits for staff and work with personnel management in Ministries and CSB to identify appropriate incentives for staff participation.
Phase of Implementation	Phase 1

Project Title	**IMP2.2**: **Create a Civil Service Fast Stream Programme to recruit high achievers to HRD positions in Ministries**
Objectives	Create a pipeline of the highest achieving graduates into the Jordanian civil service to fill HRD-related positions in Ministries.

Activities	• Design a highly selective, meritocratic Civil Service Fast Stream programme for entry into initially MoE, MoHESR, MoSD, MoL, MoPIC, MoF. Features of the programme to include:
	  ○ Training and fast-track promotion opportunities for participants.
	  ○ Financial incentive for participants.
	• Define appropriate roles, development opportunities, rewards packages and promotion framework based on needs of each Ministry.
	• Confirm size of inaugural recruitment intake and growth plan.
	• Write position descriptions and hiring criteria.
	• Define interview and selection process.
	• Design programme of activities for year of first recruits.
	• Conduct marketing and awareness campaign to advertise the first hiring and selection round.

Responsibilities	• HRD Results and Effectiveness Unit and CSB.
Current Status	• No foundation for such a programme exists.
KPIs	• Number of applications. • Quality of applications. • Retention and progression rates in the programme.
Impacts and Mitigations	• Risk: This initiative will add complexity to already complicated Civil Service Bureau procedures. Mitigation: The possibility of devolving greater hiring responsibilities to Ministries for the Fast Track programme should be considered.
Phase of Implementation	Phase 2

IMP3: Engage internal and external stakeholders to generate trust in and support for the Strategy

Project Title	**IMP3.1**: **Create comprehensive internal communications plan for Ministry employees**
Objectives	Ensure that all implementing stakeholders are aware of the HRD Strategy and the role that their department has to play in it.

Activities	• Define objectives of communications.
	• Identify changes and segment audiences across Ministries.
	• Develop key messages for each audience, creating primary and secondary messages if needed. Example message types could include:
	  ○ Aims of the Strategy.
	  ○ Impacts to current operations.
	  ○ How to get involved.
	  ○ How departmental activities and staff KPIs impact headline KPIs of the Strategy.
	  ○ Identify channels and products to deliver messages.
	• Create detailed delivery schedule.

Responsibilities	• HRD Results and Effectiveness Unit and Professional Communications Firm.
Current Status	No current activity
KPIs	Complete communications plan by end of month 2 of Strategy implementation Number of staff reached via channels. Feedback collected via surveys on awareness of and attitudes towards the Strategy.
Impacts and Mitigations	Presenting internal stakeholders with a clear understanding of the Strategy and their role in it.
Phase of Implementation	Launch during Phase 1, ongoing for duration of Strategy.

Project Title	**IMP3.2: Carry out public-facing communications plan to build public trust in the Strategy**
Objectives	Build awareness of and trust in the Strategy by demonstrating progress.

Activities	• Undertake surveys to establish baseline attitudes and awareness after National Conference.
	• Identify communications objectives.
	• Segment audience according to key changes and impacts.
	• Develop key messages for each audience, creating primary and secondary messages if needed. Examples could include:
	  ○ The aims of the Strategy.
	  ○ How specific Strategy initiatives will positively impact the lives and families of the audience.
	  ○ What examples of positive change that already took place will this build on.
	  ○ Stories of 'quick wins' to demonstrate rapid progress.
	• Identify channels and products to deliver messages and detailed delivery plan. This should link appropriately to M&E processes and tools, such as a public dashboard to give an honest report of progress and in the case of lack of progress, what is being done about it.

Responsibilities	• HRD Results and Effectiveness Unit and Professional Communications Firm.
Current Status	A draft communications plan is under development. It will need to be validated before execution.
KPIs	• Feedback collected via surveys on awareness of and attitudes towards the Strategy and specific strategy initiatives. • Number of audiences reached.
Impacts and Mitigations	• Risk: Communications strategy is de-prioritised in favour of other activities. Mitigation: Placing ownership of this activity with HRD Results & Effectiveness Unit should reduce the chances that other Ministry initiatives are prioritised.
Phase of Implementation	Launch during Phase 1, ongoing for duration of Strategy.

IMP4: Ensure that the HRD Strategy has sufficient financial resources and that the country's resources are aligned with the HRD Strategy

Project Title	IMP4.1 Develop an HRD Funding Plan
Objectives	Make better use of existing resources; align resources to strategic priorities for HRD and pilot new funding mechanisms for HRD projects.

Activities	• Develop a comprehensive funding approach and plan for the HRD Strategy. Working across Ministries to develop such a plan should be one of the first coordinating activities of the HRD Results and Effectiveness Unit.
	• To create a plan involved parties should:
	  ○ Define objectives and principles of HRD funding approach.
	  ○ Review existing HRD expenditures (capital and recurrent costs), HRD-related budgets and current funding sources and disbursement mechanisms. This includes undertaking Public Expenditure Reviews (PERs) for ECED, Higher Education and TVET, to complement the PER recently undertaken for MoE expenditure.
	  ○ Assess and analyse existing expenditures, budgets and funding sources against HRD project costs.
	  ○ Agree funding sources and disbursement mechanisms and identify gaps.
	  ○ Propose mechanisms to fill gaps to include blended finance instruments and proposed donor support.
	• Integrate plan into government budget.

Responsibilities	• HRD Reform Board through the HRD Results & Effectiveness Unit, MoF, MoPIC.
Current Status	No cross-ministerial funding strategy exists. PER for school-level education under MoE conducted in late 2015 by the World Bank. No PERs exist for ECED, Higher Education or TVET.
KPIs	• Plan is developed and implemented within six months of Strategy implementation. • At least one blended finance mechanism is identified as part of the plan.
Impacts and Mitigations	• Risk: Ministries will be resistant to aligning resource plans. • Mitigation: Develop a clear benefits case to show how alignment of funding can free up resources for other Ministerial objectives.
Phase of Implementation	Phase 1

7.7 Implementation Roadmap

7.7.1 Schedule for delivery

The programmes set out in the main sections of this Strategy each consist of one or more projects for which a Project Brief is provided. In each case the phasing of that project is indicated using the following phases of delivery shown below.

Figure 7.8: Phases of the HRD Strategy delivery plan

The phases are:

- **Phase 1 – Short-term changes:** Implement pending and agreed projects (e.g. QRTA's Initial Teacher Education Programme), fast-track 'quick wins' and pilot projects (e.g. first mobilisation campaigns, single track entry for medicine), and put in place pre-requisites to further changes (e.g. sector skills councils).
- **Phase 2 – implement new initiatives:** Develop and roll out new services (e.g. careers, inset, apprenticeships) and design and introduce new regulations (e.g. licensing technician and craft jobs).
- **Phase 3 – Roll out system-wide reforms:** Implement major change programmes (e.g. reform of Tawjihi, reform of HE admissions, new degree-level technical provision and programmes).

The phases have deliberately been overlapped – because of the disparate programmes contained in each phase and because of the need to maintain flexibility.

The schedule has been created on the basis that the change programmes can be designed and implemented within six years. The remaining four years of this ten year Strategy will be concerned with benefits realisation, as changes feed through to further cohorts of learners and new behaviours become embedded. In practice, the strategic refreshes carried out after three years and six years will be likely to create a need for further change programmes during this period.

The Implementation Roadmap presented at Appendix A provides more detail on the proposed scheduling and shows how all the projects combine together into a schedule for delivery.

7.7.2 Schedule for realisation of benefits

In addition to understanding the schedule for delivery, it will be important to understand the implications for realisation of benefits. Real *impact* is not achieved by activity in project teams but by changes in behaviour across ECED, schools, TVET and HE.

In defining the programmes, three 'horizons of change' for benefit realisation were used:

- Programmes of change concerned with making current forms of HRD delivery better or more effective. These programmes typically have relatively small impact in strategic terms but benefits can be realised relatively quickly
- Programmes of change concerned with introducing new forms of provision or new opportunities. These programmes typically have a larger impact in strategic terms but benefits take somewhat longer to realise
- Programmes of change concerned with developing whole new ways of achieving HRD ambitions. These are often described as the 'game changers'. These programmes have a very great impact in strategic terms but often (though not absolutely always) it takes a substantial period of time to realise benefits.

These horizons of change are shown on Figure 7.9 below.

Figure 7.9: Horizons of change for benefit realisation

APPENDIX A: IMPLEMENTATION ROADMAP

This roadmap lays out potential timescales to deliver the reforms proposed in the National Human Resource Development Strategy and highlights the relationship between different activities. The timelines proposed here correspond to the phases of strategy implementation outlined in the implementation plan:

- **Phase 1:** Years 1-2
- **Phase 2:** Years 2-4
- **Phase 3:** Years 3-6 and beyond.

Each year in the roadmap is an academic year, starting in August and ending in July. This means yearly quarters break down as follows:

- Q1: August to October
- Q2: November to January
- Q3: February to April
- Q4: May to July.

Unless work for a project is already underway, it is assumed that Year 1 Q1 and Q2 will be dedicated to establishing the governance structures needed to delivery strategy implementation. Therefore, other project work will begin from Year 1 Q2.

For each project, lead and supporting agencies which should deliver the work have been identified.

The potential elements of the delivery timescales for each project include:

Design and Planning: A period of design and planning is required before implementation activities can begin - e.g., feasibility studies, organisational design for new entities, developing the content and schedule for a training program.

Implementation: Activities to put the aims of the project in place, e.g., delivering a training program after its contents have been developed.

Launch: The conclusion of implementation is a milestone for the HRD Strategy Implementation, e.g., the launch of a new organisation, or the implementation of a major system change such as University admissions policies, the point after which a licensing system for teachers or trainers is in place.

Follow up or business-as-usual: A high level description of what will happen after the completion of a project.

These timelines are an initial assessment and it is expected that they will change once resource and final list of recommendations is confirmed.

EARLY CHILDHOOD EDUCATION AND DEVELOPMENT

Early Childhood Education and Development						
Objective	Code	Project Title	Lead Agency(ies)	Supporting Agency(ies)	Dependency	Alignment
1 - Access	ECED 1.1	Increase KG2 capacity and enrolment	MoE to lead and coordinate	NGOs and private sector providers		
	ECED 1.2	Increase KG1 and nursery enrolment through encouraging the expansion of private and non-governmental provision that meets specified standards	Joint ECED Committee, MoE to encourage private sector providers and coordinate KG1.MoSD to coordinate nurseries	MoL	ECED 3.2	
	ECED 1.3	Improve the health and nutrition of children and mothers	MoH	MoSD, Higher Council for Persons with Disabilities, and National Council for Family Affairs		
2 - Quality	ECED 2a.1	Develop a new curriculum for ECED that meets the needs of young Jordanians	The Curriculum and Assessment Institute; MoE		B&SE2a.1	
	ECED 2b.1	Redesign admissions requirements for teachers and caregivers	MoE and MoHESR (University programmes)			B&SE2b.1
	ECED 2b.2	Improve and expand training opportunities for ECED workforce	Joint ECED Committee	MoE, MoSD, Family Protection Unit	ECED 3.2	
3 - Accountability	ECED 3.1	Reform and consolidate legislation related to ECED provision	Joint ECED Committee	National Council for Family Affairs	ECED3.2	
	ECED 3.2	Establish a single body to coordinate all ECED activities and decision making	HRD Reform Board	MoE, MoSD, HRD R&E Unit	IMP1.1 IMP1.2	
	ECED 3.3	Establish an independent inspectorate for the public and private sector	Joint ECED Committee	MoE; MoH; MoF; MoL; relevant NGOs and civil society organizations	ECED 3.2	
	ECED 3.4	Introduce an accreditation/qualification system for ECED teachers and caregivers	MoE, MoSD			B&SE3.1
	ECED 3.5	Create data-led decision processes to facilitate continuous system wide improvement	Data Collection Task Force to be established under the Joint ECED Committee		ECED3.2	
4 - Innovation	ECED 4.1	Better use technology and the media to support improvements in ECED provision	Joint ECED Committee		ECED 3.2	ECED 2b.2 ECED 5.2
	ECED 4.2	Examine feasibility of, and pilot innovative financing approaches to ECED	Joint ECED Committee	Queen Rania Foundation, MoE, MoSD, MoF, MoPIC	ECED 3.2	IMP4.1
5 - Mindset	ECED 5.1	Improve training outreach to parents and other primary caregivers	Joint ECED Committee	UNICEF and other partners in the Better Parenting Programme, telecommunication companies, TV and radio channels	ECED 3.2	ECED 4.1
	ECED 5.2	ECED5.2: Mobilise families to better support learning and early childhood development at home and increase their engagement in their child's formal learning	Initially led by Queen Rania Foundation	Coalition of ECED stakeholders drawing on existing initiatives in Jordan		

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7-10
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Y7 Y8 Y9 Y10
Design and Planning
Implementation
Design and Planning
Implementation
Design and Planning
Implementation (implementation will involve making continuous improvements throughout the duration of the strategy)
Design and Planning
Implementation
Launch: Curriculum in place and used from this point on
Design and Planning
IMP
Launch: New admissions requirements in place for teachers and caregivers from this point forward
D&P
Implementation
New training programmes in place and ongoing
IMP
Harmonised legislation in place and enforced
D&P
IMP
Launch: ECED coordination entity is in place and operational from this point forward
Design and Planning
Implementation
Launch: Inspectorate is in place and operational from this point on
Design and Planning
Implementation
Launch: Accreditation/qualification system is in place and enforced from this point on
Design and Planning
IMP
Data collection processes used for business-as-usual
Design and Planning
IMP
Online courses available on Edraak and are regularly reviewed and updated
Design and Planning
IMP
Approach confirmed and, if applicable, new project for pilot initiative moves forward
Implementation
Outreach activities revised and ongoing through new initiatives after needs are reassessed following completion of the project
Design and Planning
Implementation
Campaign is ongoing and refreshed at appropriate intervals

BASIC & SECONDARY EDUCATION

Basic and Seconday Education						
Objective	Code	Project Title	Lead Agency(ies)	Supporting Agency(ies)	Dependency	Alignment
1 - Access	B&SE 1.1	Open new schools strategically	MoE (MDs of Educational Planning and Research, School Buildings and International Projects)	MoPIC, Ministry of Public Works and Housing; Donors		B&SE1.2 B&SE1.4
	B&SE 1.2	Rationalise poor performing small schools	MoE (MDs of Educational Planning and Research, School Buildings and others)	UNESCO and other donors		
	B&SE 1.3	Increase capacity to serve students with disabilities and special needs	MoE	HCD, Donors (e.g. Mercy Corps, Handicap International, UNICEF etc.), MoSD, MoH		
	B&SE 1.4	Improve provision for Syrian refugees	MoE	Donors, Civil Society Organisations, UNHCR		
	B&SE 1.5	Expand national-level General Equivalency Diploma system to cover all out-of-school children and youth	MoE	Schools, NGOs		
	B&SE 1.6	Improve school environments to ensure they are safe, nurturing and healthy	MoE	Local NGOs, Donors		
2 - Quality	B&SE 2a.1	Establish an independent Curriculum and Assessment Centre	The Curriculum and Assessment Centre; MoE			
	B&SE 2a.2	Modernise the Basic and Secondary curriculum	The Curriculum and Assessment Centre and MoE		B&SE2a.1	
	B&SE 2a.3	Modernise and align Tawjihi and other key assessments	The Curriculum and Assessment Centre; and, MoE's Testing Directorate	NCHRD	B&SE2a.1 B&SE2a.3	
	B&SE 2b.1	Reform admissions process at universities for fields related to education	Ministry of Higher Education and Scientific Research	QRTA (new initial teacher preparation programme [ITE]); Universities		ECED2b.1
	B&SE 2b.2	Improve teachers' selection process	CSB and MoE			
	B&SE 2b.3	Establish an Initial Teacher Education Programme	MoE; QRTA; MoHESR			
	B&SE 2b.4	Develop comprehensive in-service teacher training	MoE	In-service training providers		
3 - Accountability	B&SE 3.1	Introduce a teacher certification and licensing system	MoE and QRTA- ITE	CSB; MoE Education and Accountability Unit (EQAU) and Private Education Directorate		B&SE2b.3 ECED3.4
	B&SE 3.2	Devolve more responsibilities to the Field Directorate and school level	MoE; HRD Results & Effectiveness Unit			
	B&SE 3.3	Introduce a school leadership certification and licensing system	MoE	QRTA, CSB		
	B&SE 3.4	Revise the teacher ranking system and appraisal process	MoE and CSB			B&SE3.1
	B&SE 3.5	Leverage MoE accountability structures to drive public and private school quality	MoE	MoH; MoF; MoL; relevant NGOs and civil society organizations		
	B&SE 3.6	Improve data quality and usage to aid accountability and improvement	MoE Managing Directorate of Educational Planning and Research	QRCIT, MoICT, School teachers and principals, Donors, MoE Field Directorates		
4 - Innovation	B&SE 4.1	Explore innovative financial mechanisms to accelerate improvements in provision and quality	MoE	Higher Council for PPPs		IMP4.1
	B&SE 4.2	Stimulate growth in high quality private provision	MoE	MoF, MoPIC		
	B&SE 4.3	Strengthen the use of technology to modernise teaching and learning	MoE	MoICT; JEI in partnership with private sector corporations		
5 - Mindset	B&SE 5.1	Mobilise families and parents to support learning at home	MoE	Donors, international and local NGOs		ECED5.1
	B&SE 5.2	Mobilise families and parents to support learning in schools	MoE			ECED5.2

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7-10
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Y7 Y8 Y9 Y10
Design and Planning
Implementation
Design and Planning
Implementation
Further reviews to assess future changes
Design and Planning
Implementation
Space renovations complete; other capacity-enhancing activities, e.g. training, awareness campaigns designed and ongoing
D&P
Implementation
Programmes reviewed and revised or wound down according to reassessment of needs
Design and Planning
Implementation
NFE programmes in place and operational, and regularly reviewed to reassess demand
D&P
Implementation
Upgrades to schools complete; other measures to improve environments rolled out
D&P
IMP
Launch: Curriculum and Assessment Institute is operational from this point forward
Design and Planning
Implementation phase
New curriculum is rolled out at timed intervals throughout this period
Launch: New curriculum fully rolled out across the system from this point forward.
Design and Planning
Implementation phase (Timing of roll out of new assessments is aligned to roll out of new curriculum so students have time to adapt. Tawjihi redesign begins in Year 5)
Launch: All new assessments fully rolled out.
Year 7 is first year of new Tawjihi.
Design and Planning
IMP
Launch: New admissions requirements in place for fields related to education from this point forward
D&P
Implementation
Launch: New selection process and standards in place and used from this point forward
ITE certification as a prerequisite
D&P
IMP
Launch: Initial Teacher Education Programme operational and expanding programme according to growth plans
D&P
Implementation
New training standards, programmes, and resources in place and in-service training is a regular activity for teachers
Design and Planning
Implementation
Launch: Teacher certification and licensing system in place and enforced from this point forward
D&P
Implementation
Transition complete and new decentralized operational models in place
Design and Planning
Implementation
Launch: School leadership certification and licensing system in place and enforced from this point forward
Design and Planning
IMP
New teacher ranking system and appraisal system in place and applied for all teachers
Design and Planning
Implementation
New inspection processes and criteria in place and operationalised at MoE's EQAU
Implementation
New EMIS is operational, training complete for users, and dashboards tailored for different user groups in place
Design and Planning
Implementation
Approach confirmed and, if applicable, new project for pilot initiative moves forward
Design and Planning
IMP
Recommendations from review taken forward with new projects
Design and Planning
Implementation
Follow up and review of ongoing technology needs
D&P
Implementation
Campaign is ongoing and refreshed at appropriate intervals
D&P
IMP
Engagement activities identified are ongoing

TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING

Technical and Vocational Education and Training						
Objective	Code	Project Title	Lead Agency(ies)	Supporting Agency(ies)	Dependency	Alignment
1 - Access	TVET 1.1	Approve the NQF	SDC through CAQA	MoE, MoL, MoHESR, HRD Reform board	TVET3.1	
	TVET 1.2	Degree-level TVET programs and provision	MoHESR	SDC		
	TVET 1.3	Equal pay for TVET Graduates	CSB	SDC		
	TVET 1.4	Licencing for craftsmen and technicians	MoL through NEC		TVET2.4	
2 - Quality	TVET 2.1	Establish standards and training requirements for TVET trainers/instructors	SDC through CAQA			
	TVET 2.2	Accreditation and grading system for all TVET trainers	SDC through CAQA			
	TVET 2.3	Transfer the CAQA to the SDC	SDC through CAQA		TVET3.1	
	TVET 2.4	Align TVET provision to National Employment Strategy and Jordan 2025 goals	SDC through NEC			
3 - Accountability	TVET 3.1	Design and Establish the SDC	The Cabinet			
	TVET 3.2	Enforce/facilitate the use of data to inform policy and decisions	SDC		TVET3.1	HE1.3 HE3.1
4 - Innovation	TVET 4.1	Establish a Private Sector-led Skills Development Fund	SDC		TVET3.1	
	TVET 4.2	Establish new Public-Private Partnerships aligned with priority clusters identified in Jordan 2025	SDC and Sector Skills Councils		TVET3.1	
	TVET 4.3	Expand apprenticeship programs	NEC with SDC	VTC and MoL	TVET3.1	
5 - Mindset	TVET 5.1	School-based careers guidance and exposure to design and technology	SDC and Sector Skills Councils	MoE, MoL and KAFD	TVET3.1	HE1.3
	TVET 5.2	Participation of Jordan in the WorldSkills competition	Sector Skills Councils			
	TVET 5.3	Reform the current tracking system for the MoE VET stream and delink VET from low scholastic achievement	MoE			TVET1.1

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7-10
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Y7 Y8 Y9 Y10
Implementation
Launch: National Qualifications Framework in place
Design and Planning
Implementation
Launch: New technical colleges at universities and polytechnics established
Design and Planning
IMP
New policies in place and enforced
Design and Planning
Implementation
Launch: Licensing system for craftsmen and technicians in place and enforced
Design and Planning
Implementation
New policies and registration system for trainers in place and enforced
Design and Planning
Implementation
Launch: Accreditation and grading system in place and enforced
Implementation
CAQA transferred to SDC and operating under its new extended remit
D&P
Implementation
National Employment Council in place and operational; Sector Skills Councils operational; regular review of TVET programmes underway and private sector routinely reviewing and responding to internal training needs
D&P
IMP
Launch: Skills Develop Corporation is in place and fully operational from this point forward
Design and Planning
Implementation
LMIS implemented and operational; data collection regularly taking place and data is used to make policy decisions
Design and Planning
Implementation
Launch: Skills Development Fund is operational and new dis
Design and Planning
IMP
PPPs in place and launched according to schedule
Implementation
Launch: Apprenticeship Framework is approved and planning and implementation of new programmes is underway
Design and Planning
IMP
Vocational curriculum in place at schools and career counsellors in place and regularly engaging with students, families, and industry
IMP
Launch: Jordan participates in the World Skills competition biannually from this point forward
Design and Planning
Implementation
Launch: New entry requirements for TVET pathways, second-chance routes and alternative routes in place from this point forward

HIGHER EDUCATION

Higher Education						
Objective	Code	Project Title	Lead Agency(ies)	Supporting Agency(ies)	Dependency	Alignment
1 - Access	HE 1.1	Unified Admissions System for Undergraduate Degrees, to include gradual phasing out of parallel program and restructuring of certain exceptions	MoHESR	Universities		IMP 4.1
	HE 1.2	Adapt key degree programs to include a foundation year	Universities to pilot	MoHESR, HEC and HEAC to coordinate and monitor effectiveness		
	HE 1.3	Student guidance and career counselling	Skills Development Corporation, MoE, schools, and universities	MoL, Local Employers, HEC, KAFD	TVET3.1 TVET3.2	
	HE 1.4	Expand student financial assistance	MoHESR administered by Student Aid Agency			IMP 4.1
2 - Quality	HE 2.1	Accreditation of professional programmes and adherence to Quality Assurance standards	HEAC	MoHESR and HEC		
	HE 2.2	Review and streamlining of existing programmes and majors offered	HEC and HEAC		TVET3.2	
	HE 2.3	Enhance Teaching Capacity	HEC and Universities			
	HE 2.4	Measure, monitor and report on teaching quality	MoHESR and HEAC	Specialised international institutions		
	HE 2.5	Create university learning environments that promote excellence and innovation	Universities			
3 - Accountability	HE 3.1	Strengthen HE governance bodies	MoHESR	Universities, the private sectors, HRD Results & Effectiveness Unit		
	HE 3.2	Review and clarify process of university president selection and appointment	MoHESR			
	HE 3.3	Strengthen incentives for effective resource management	MoHESR	HEC, HEAC and MoF		
4 - Innovation	HE 4.1	Establish an HE Innovation and Development fund	HEC			
	HE 4.2	Upgrade technological infrastrcuture and tools across HE campuses and promote use of Open Educational Resources (OERs)	MoHESR	HEC, HEAC, MoICT		

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7-10
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Y7 Y8 Y9 Y10
Design and Planning
Implementation
Design and Planning
Implementation phase
(with pilot s to launch in year 3)
Launch: Foundation years in place from this point forward.
Launch: Single merit-based admissions system in place and parallel programme completely phased out from this point forward.
Design and Planning
Implementation
Career guidance in place
Design and Planning
Implementation
Launch: Expanded student financial assistance options available from this point forward
D&P
Implementation
University programmes evaluated on a consistent basis and quality assurance processes consistently applied
Design and Planning
Implementation
Universities operating with re-balanced portfolio of programmes
Design and Planning
Implementation
New resources for teaching staff in place and available
Design and Planning
Implementation
HEMIS in place and in use by HEAC for decision-making
Design and Planning
Implementation
Universities operating with learning environment which are a catalyst for creativity and excellence, inspiring a sense of security, equity, responsibility and citizenship
Design and Planning
Implementation
HEC, HEAC, and Boards of Trustees operating under revised remits
Design and Planning
Implementation
Launch: New selection processes in place from this point forward;
mid strategy review to assess readiness of University Boards to take over this process
Design and Planning
Implementation
Universities operating under revised funding conditions
Design and Planning
Implementation
Launch: New applied science courses launched, BAU refocuses to mandate of TVET programmes Launch: Innovation Fund operational and funding projects from this point forward and new polytechnic operational from this point forward
Design and Planning
Implementation
Universities operating with upgraded infrastructure and resources and using technology to enhance teaching, learning and research

IMPLEMENTATION

Implementation						
Objective	Code	Project Title	Lead Agency(ies)	Supporting Agency(ies)	Dependency	Alignment
1 - Structures	IMP 1.1	Create an HRD Reform Board	The Prime Minister			
	IMP 1.2	Create the HRD Results and Effectiveness Unit	HRD Reform Board The Prime Minister		IMP1.1	
	IMP 1.3	Create the Executive HRD Working Group Committee	The Prime Minister with input from the HRD Reform Board		IMP1.1	
	IMP 1.4	Evaluate the effectiveness of the MoE Education and Accountability Unit and draw from lessons learned to build accountability units in the MoHESR, MoL and MoSD	HRD R&E Unit		IMP1.2	
2 - Capability Building	IMP 2.1	Design and implement a capacity-building plan for civil service leadership and delivery staff	HRD R&E Unit,Policy units in Ministries and Civil Service Bureau	MoE, MoHESR, MoL, MoSD, MoH		
	IMP 2.2	Create a Civil Service Fast Stream Programme to recruit high achievers to HRD positions in Ministries	HRD R&E Unit Civil Service Bureau	MoE, MoHESR, MoL, MoSD, MoH		
3 - Communications	IMP 3.1	Create comprehensive internal communications plan for Ministry employees	HRD R&E Unit			
	IMP 3.2	Carry out public-facing communications plan to build public trust in the strategy	HRD R&E Unit			
4 - Sustainable Resources	IMP 4.1	Develop an HRD Funding Plan	HRD Reform Board through the HRD R&E Unit	MoF, MOPIC	IMP1.1 IMP1.2	ECED4.2 B&SE4.1 HE1.1 HE3.3

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7-10
Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Y7 Y8 Y9 Y10
IMP
HRD Strategy Reform Board in place for duration of the ten-year plan
IMP
HRD Results & Effectiveness Unit in place for duration of the ten-year plan
IMP
Executive HRD Working Group Committee in place for duration of the ten-year plan
D&P
Implementation
Accountability units operational and working with HRD R&E Unit to implement other strategy initiatives
D&P
Implementation
Training needs reviewed and new plans developed in accordance with strategy priorities after 4 and 7 year strategy reviews
D&P
IMP
Launch: Civil Service Fast Stream Programme operational from this point forward
D&P
Implementation
D&P
Implementation
D&P
Implementation
D&P
Implementation
D&P
Implementation
D&P
Implementation
D&P
Implementation
D&P
Implementation
IMP
Funding plan in place and reassessed after 4 and 7 year strategy reviews

APPENDIX B: KEY PERFORMANCE INDICATORS AND TARGETS

The Key Performance Indicators (KPIs) that have been identified for this Strategy are outlined over the following pages and are linked with five and ten-year targets. KPIs and targets are an essential component for monitoring and evaluation of the Strategy. They will allow for progress tracking, accountability and evidence-based policy making. They can also provide the basis for 'proof point' stories for the public which demonstrate the successes of the Strategy.

KPIs have been created for each objective proposed under the Strategy. These will need to be confirmed after the Strategy is finalised as part of the initiation process for each project. The KPIs here will be used to track progress towards achieving the objectives of the strategy, rather than the success of individual projects. In some cases, a project-level KPI was also suitable to track the strategic objective in the strategy and has been included in this list, as well.

The key principles used to identify the proposed measures are set out below.

- Effective implementation of strategic proposals requires clear measures of success (KPIs) with related targets.
- These should be quantified in SMART (Specific, Measurable, Achievable, Realistic, Time-bound) terms wherever possible, using proxies if necessary.
- Data must also enable us to reach the neediest, and find out whether they are accessing and completing education and training, and the learning outcomes that they have mastered. This means that data gathered, and the indicators that derive from them, will need to be disaggregated, where relevant, by income (especially for the bottom 20%), sex, age, race, ethnicity, migratory status, disability, and geographic location, or other relevant characteristics.
- Metrics should, where appropriate, be specified in terms that allow benchmarking, in one of three types
  - Progress against baseline performance
  - Achievements vs. international standards (e.g., TIMSS)
  - Comparisons with selected nations (e.g., other small, middle income countries)
- A number of the HRD proposals involve the establishment of new bodies or arrangements, for which the appropriate success measures are that the body/arrangements are in place and working within a planned timescale, and are judged effective thereafter in terms of the operational changes sought; these KPIs are different in kind.

Early Childhood Education and Development (ECED) KPIs and Targets

ECED1: Access – Ensure that Jordan's ECED infrastructure and provision develops to provide a basic level of access for all children in Jordan

KPI	Baseline	5-year target	10-year target	Source of data
KG2 enrolment (public and private).	60%(2015)[1]	80%	100%	MoE EMIS
KG1 enrolment (public and private).	18% (2015)[2]	25%	35%	MoE EMIS
Nursery enrolment (public and private).	3% (2015)[3]	10%	20%	MoSD
Percentage of parents and children with access to family and child centres.	To be established	Baseline +10%	Baseline + 20%	MoH
Percentage of children under age five suffering from moderate or severe stunting.	8% (2012)[4]	6%	4%	DoS Population and Family Health Survey
Percentage of immunised children.	93% (2012)[5]	96%	99%	
Percentage of children fed appropriately based on infant and young child feeding practices (ICYF).	33% (2012)[6]	43%	53%	
Percentage of kinship marriages.	35% (2012)[7]	30%	25%	
Percentage of women receiving postnatal care in the next two days after delivery.	82% (2012)[8]	89%	92%	

[1] *Jordan 2025.*

[2] QRF, 2016.

[3] Ibid.

[4] Department of Statistics, 2012.

[5] Ibid.

[6] Ibid

[7] Ibid.

[8] Ibid.

ECED2a: Quality – Revise, update, and develop the curriculum and assessment framework

KPI	Baseline	5-year target	10-year target	Source of data
Scores on the Early Development Instrument (EDI) assessment.	73% Ready to Learn (2014)[9]	Increase of % of children 'ready to learn' by 7.5%	Increase of % of children 'ready to learn' by 15%	NCHRD/ UNICEF
Early Grade Maths Assessment (EGMA) and Early Grade Reading Assessment (EGRA). Subcomponent mean scores and % students with zero scores.	**EGRA (2012)**[10] Subcomponent mean scores (% of students with zero scores): Letter sound knowledge 26.4 (24.1%) Invented word decoding 5.7 (47.1%) Oral reading fluency 19.4 (20.2%) Reading comprehension 2.5 (24.4%) Listening comprehension 2.5 (11.8) **EGMA (2012)**[11] Subcomponent mean scores and (% of students with zero scores grade 2, grade 3): Number identification: 34.7 (1%, 1%) Quantity discrimination 9.5 (4%, 3%) Missing number: 5.4 (6%, 5%) Addition – level 1: 13.9 (13%, 11%) Addition – level 2: 2.6 (24%, 18%) Subtraction- level 1: 11.6 (18%, 15%) Subtraction – level 2: 1.5 (48%, 36%) Word problems: 1.2 (34%, 22%)	Reduce % of students with zero scores by 5% Increase in mean score for each subtask by 10 points	Reduce % of students with zero scores by 10% Increase mean score in each subtask by 20 points	MoE and USAID

[9] NCHRD, 2015.

[10] USAID, 2012.

[11] Ibid.

ECED2b: Quality – Improve the quality and size of the ECED workforce

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of KG2, KG1 and nursery caregiver completion of pre-service training.	Pre-service: Work-based nursery caregivers: 41% (2015)[12] MoE school-based nursery caregivers: 12% (2015)[13] CBO-based nursery caregivers: 36% (2015)[14] Private nursery caregivers: 27% (2015)[15] Public KG2 teachers: To be established Private KG1 and KG2 teachers: To be established	50%	75%	QRF ECED Survey
Percentage of KG2, KG1 and nursery caregiver completion of in-service training in the last two years.	Work-based nursery caregivers: 30% (2015)[16] MoE school-based nursery caregivers: 10% (2015)[17] CBO-based nursery caregivers: To be established Private nursery caregivers: To be established Public KG2 teachers: To be established Private KG1 and KG2 teachers: To be established	50%	75%	

[12] QRF, 2016.

[13] QRF, 2016.

[14] Ibid.

[15] Ibid.

[16] Ibid.

[17] Ibid.

ECED3: Accountability – Strengthen accountability and coordination at all levels in the ECED

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of KGs and nurseries rated 'good' or 'outstanding'.	To be established	30%	70%	The independent nurseries and KG inspectorate

ECED4: Innovation – Use innovation to leverage change in ECED and ECED5: Mindset – Mobilise families to support learning, health, nutrition and social protection at home and school

KPI	Baseline	5-year target	10-year target	Source of data
Proportion of parents and other primary caregivers who demonstrate relevant knowledge, attitudes and practices towards early childhood learning, health, nutrition and social protection.	To be established	Baseline + 15%	Baseline + 30%	QRF ECED Survey, DoS Population and Family Health survey

Basic and Secondary Education KPIs and Targets

B&SE1: Access – Ensure that schools offer conducive learning environments, and that school infrastructure is updated and resources are strategically allocated to meet demand

KPI	Baseline	5-year target	10-year target	Source of data
Number of new schools opened that meet national construction codes and adheres to EQAU inspection criteria.	MoE estimates 60 new schools are required per annum to provide for an additional 25,000 students annually[18]	300 new schools serving an additional 125,000 students	600 new schools serving an additional 250,000 students	MoE
Percentage of Grade 1-10 aged children enrolled in schools.	Total: 98% Male: 97% Female: 98% Syrian refugees: 61.6% Disabilities and Special Education: no accurate data exists (2015 for all)	Total: 100% Male: 100% Female: 100% Syrian refugees: 80% Disabilities and Special education: increase of 20% from baseline	Total: 100% Male: 100% Female: 100% Syrian refugees: 90% Disabilities and Special education: increase of 30% from year 5	MoE EMIS

B&SE2a: Quality – Modernise the curriculum and assessment framework through establishing an independent body

KPI	Baseline	5-year target	10-year target	Source of data
Jordan's scores in Trends in International Mathematics and Science Study (TIMSS).[19]	TIMSS (2011) Science 449 Math 406	TIMSS (2019) Science 489 Math 446	TIMSS (2023)[20] Science 509 Math 466	International Association for the Evaluation of Educational Achievement (IEA)
Jordan's scores in the Programme for International Student Assessment (PISA).[21]	PISA (2012) Science 409 Math 386 Reading 399	PISA (2018) Science 439 Math 416 Reading 429	PISA (2021)[22] Science 454 Math 431 Reading 444	OECD

[18] MoE, 2016.

[19] TIMSS survey occurs every 3 years, the targets set are for the TIMSS survey in 2019 and 2023 respectively.

[20] *Jordan 2025* targets for TIMSS.

[21] PISA survey occurs every 3 years, the targets set are for the PISA survey in 2018 and 2021 respectively.

[22] *Jordan 2025* targets for PISA.

B&SE2b: Quality – Improve the quality of the workforce at all levels of Basic and Secondary provision, with an emphasis on teacher training

KPI	Baseline	5-year target	10-year target	Source of data
Average Tawjihi score for new teachers.	65% (2016)	70% (or equivalent)	75% (or equivalent)	MoE
Percentage of teachers who are licensed.	0%	20% of new teachers	100% of teachers	MoE
Percentage of teachers who attend 80 hours of training each year.	Data unavailable. Indicative information: only 43% of public teachers and 29% of private teachers have received any training in the past two years.	50%	75%	MoE and QRF teacher survey
Percentage of new teachers in grades 4-10 who complete pre-service training of at least 8 months duration.	0%	50%	100%	MoE

B&SE3: Accountability – Strengthen accountability, leadership and capacity for policy development and strategic planning at all levels in the system (from school level to the Ministry)

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of school leaders who are licensed.	0%	30% of school leaders are qualified	100% of school leaders are qualified	MoE

B&SE4: Innovation – Use innovation and technology to leverage change in schools

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of teachers integrating technology in the classroom on a regular basis.	N/A (Based on observed classroom practices)	20%	75%	MoE or NCHRD
Percentage of schools connected to the internet.	79% (2015)[23]	100%	100%	MoE

[23] MoE, 2015.

B&SE5: Mindset – Mobilise families and parents to support learning at home and in schools

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of parents who read to their children on a regular basis.	Data unavailable: Jordan is not currently participating in the Parent Involvement PISA study. Indicative information: More than 40% of Jordanian mothers with children under 5 do not read to their children.[24] Two-thirds of public school parents do not discuss their child's behaviour or progress with their teachers, and this is also true for more than half of parents with children at private schools in Jordan.[25] Nearly 60% of students have fewer than 25 books at home.[26]	60%	70%	PISA Parent Involvement Survey

[24] QRF, 2016.

[25] OECD, 2013.

[26] Ibid.

Technical and Vocational Education and Training (TVET) KPIs and Targets

TVET1: Access – Establish progressive pathways to promote and recognise all forms of learning and skills development within the system and in the labour market and create new options for high quality tertiary TVET

KPI	Baseline	5-year target	10-year target	Source of data
Participation rates in TVET by agency as a percentage of all participants of education/training.[27]	~11% (2013/2014)[28]	22%	30%[29]	MoE (vocational education) MoL (VTCs) MoHESR (community college)
Enrolment in vocational education in grades 11+12 as a share of total enrolment in grades 11+12.	14% (2014/2015)[30]	22%	30%	MoE EMIS
Enrolment in secondary-level technical and vocational education as a share of total secondary enrolment.	3.6% (2011)[31]	10%	15%	UNESCO UIS, MoE EMIS
Proportion of students following technical and vocational paths in post-secondary education.	<11% (2010)[32]	16%	20%	MoHESR: New HEMIS

TVET2: Quality – Increase the quality of TVET through consistent training requirements for TVET instructors, aligning standards and quality assurance for all institutions, and closer coordination with private sector

KPI	Baseline	5-year target	10-year target	Source of data
Proportion of TVET trainers accredited to the level they are working at.	0% - no accreditation system currently exists	20% of new TVET trainers	100% of new TVET trainers	Skills Development Corporation via new LMIS
Percentage of firms offering formal training.	3.4% (2013)	19.7%	36%	World Bank Enterprise Surveys

[27] Shows the participation rates in TVET by agency (VTC, MoE, community colleges/Al-Balqa Applied University) as a percentage of all participants of education/training.

[28] Estimate based on latest available data from MoE, MoL and MoHESR.

[29] Considering historic trends an ambitious but realistic target is 30%. E.g. in 2001, the participants in TVET [JSCED levels (3 + 4 + 5)] as a percentage of all participants in education and training for the same levels was about 21%. Source: NCHRD (2009) Report on Analysis of Quantitative TVET Indicators in Jordan, 2001-2006.

[30] MoE EMIS dataset 2014/2015.

[31] UNESCO Institute for Statistics.

[32] MoHESR, 2010.

TVET3: Accountability – Put in place clear governance structures to ensure accountability across the sector

KPI	Baseline	5-year target	10-year target	Source of data
Establishment and impact of the Skills Development Corporation (SDC) and evaluation of impacts.	None – SDC does not yet exist	SDC established and fully operational and deemed to be effective during four year HRD strategy review (based on an independent assessment)	SDC remains fully operational and has completed harmonisation of TVET policies and implemented M&E Framework	N/A
Number of Sector Skills Councils established as an indicator of level of private sector involvement in setting standards, providing training.	No sector skills councils in existence	1 SSC for half of priority clusters in Jordan 2025	1 SSC for each priority cluster in Jordan 2025	Skills Development Corporation

TVET4: Innovation – Innovate funding and provision through transforming the E-TVET Fund, Public-Private Partnerships, and expanding innovative modes of delivery

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of public GDP spend on TVET	0.3% (2013)[33]	0.6%	1%	World Bank
Reintroduction of the 1% enterprise levy.	0% - the enterprise levy was cancelled in 2010	1% enterprise levy re-established and outputs and outcomes defined to test effectiveness of disbursement mechanisms of levy	1% enterprise levy remains in place and disbursement mechanisms tested and deemed effective	Skills Development Corporation

[33] *E-TVET Strategy 2014-2020*.

TVET5: Mindset – Promote and establish TVET as an attractive learning opportunity from an early age, and throughout the system

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of TVET graduates employed / self-employed / in further education and training nine months after completing training (by TVET provider, by outcome).	To be established	Baseline + 10%	Baseline + 30%	Tracer study conducted by the Skills Development Corporation
Survey tracking positive perceptions of TVET.	To be established	Baseline + 10%	Baseline + 20%	Survey conducted by the Skills Development Corporation
Percentage of employers 'Satisfied' or 'Very Satisfied' with the skills and abilities of labour market entrants holding TVET certificates (by TVET provider, by sector).	To be established	Baseline + 20%	Baseline + 40%	Enterprise survey conducted by the Skills Development Corporation

Higher Education (HE) KPIs and Targets

HE1: Access – To establish fair and equitable admissions opportunities for all qualified students based on merit and aptitudes

KPI	Baseline	5-year target	10-year target	Source of data
Percentage of students admitted with less than minimum entry requirements.	To be established	50% reduction in entrants below minimum standards	No students entering below minimum standards	UNESCO, MoHESR
Percentage of students entering through the parallel programme.	30% students admitted through the parallel programme (2015)[34]	37.5% reduction in students entering through the parallel programme (a rate of 12.5%/year starting in 2018)	No students entering through the parallel programme	
Percentage of employers who are "satisfied" or "very satisfied" with recent hires holding certificates from programs with a foundation year reported in the Enterprise survey	To be established	Baseline + 20%	Baseline + 40%	Enterprise survey conducted by the Skills Development Corporation
Percentage of undergraduate students with demonstrated need receiving some form of financial support. Percentage of male and female students from lowest household income quintile enrolled in higher education.	Baseline indicators to be established. Indicative information: Student Support Fund serves ~15k students; total students receiving any form of support is ~35-40k including 'makromat', etc. In 2009, only 8% of university-age students from the lowest income quintile were enrolled	40% of undergraduate students with demonstrated need receiving financial aid 20% of male and female students from lowest household income quintile receiving aid	60% of students with demonstrated need receiving some form of financial support 40% of male and female students from lowest household income quintile enrolled in higher education	MoHESR

[34] MoHESR, 2015.

HE2: Quality – To raise the standards of HE teaching and learning to those expected from the best modern universities

KPI	Baseline	5-year target	10-year target	Source of data
Number of universities that meet the quality assurance standards set by the HEAC.	0 (2014)[35]	7	10	HEAC
Total annual expenditure on research and development as a % of GDP.	0.52% (2014)[36]	1.25%	1.75%	MoHESR
Number of universities that have been granted international accreditations and quality assurance certificates for their qualifications.	2 (2014)[37]	8	12	HEAC
HE MIS system upgraded to gather relevant data, and operational	System exists but is not used consistently and lacks key information	HE MIS upgraded, indicators identified for learning environment, student experience and graduate outcomes, and relevant staff trained	HE MIS fully operational, data consistently collected and HEAC publishes annual quality report	MoHESR

[35] Ibid.

[36] Ibid.

[37] Ibid.

HE3: Accountability – Incentivise and encourage universities to take greater responsibility for making significant contributions to national economic and social goals

KPI	Baseline	5-year target	10-year target	Source of data
Unemployment rate of youth (under 30 years old) with university education.	28%[38]	24%	20%	HEMIS
Ratio of non-academic to academic staff in line with international norms.	2.2:1 (2014)[39]	2:1	1.8:1	MoHESR/HEC
HEC redirected towards a policy focused-mandate.	HEC is heavily involved in institutional affairs rather than high level policy setting	HEC mandate is officially restated and organisational and procedural changes to reflect this are in place	HEC activities continue to reflect mandate, including use of HE MIS data to inform and drive policy decisions	MoHESR
Percentage of public funds contingent on programme performance and efficiency.	To be established	80%	100%	MoHESR

HE4: Innovation – To enable the adoption of international best practices in teaching and learning that will support improved access and quality

KPI	Baseline	5-year target	10-year target	Source of data
Number of projects funded by the Innovation and Development Fund.	To be established	Baseline + 100%	Baseline + 200%	MoHESR
Percentage of HE courses integrating Open Educational Resources (OERs).	To be established	50% reduction in number of lecture halls without functional technology	100% reduction in number of lecture halls without functional technology	TBD

[38] Barcucci & Mryyan, 2014.

[39] *Jordan 2025.*

APPENDIX C: COSTS

Implementing the HRD Strategy will be a substantial undertaking. It will require leadership, commitment, capability and financial resources. This section deals with the estimated costs involved so that provision can be made for appropriate financial resourcing.

A.1 Context of costs

To set the costs of HRD reform in context, it is helpful to understand the current profile of spending on HRD. Figure C.1 below shows 2016 budgets for government spending on HRD – split between current expenditure and capital expenditure. The full budgets of the Ministry of Education and the Ministry of Higher Education and Scientific Research are included (while the latter will include elements of research that may not directly relate to HRD, this cannot easily be separated) together with the Family and Childhood Budget in the Ministry of Social Development, the Basic Education capital budget in the Ministry of Planning and International Cooperation, and the funds that the Ministry of Labour provides to the Vocational Training Corporation[1]. Private spending on HRD is not included.

Figure C.1: 2016 expenditure on HRD by Ministry

Budget heading	Current expenditure JOD million	Capital expenditure JOD million	Total JOD million
Ministry of Education	847.2	67.1	914.3
Ministry of Higher Education and Scientific Research	81.9	43.8	125.7
Ministry of Social Development – Family and Childhood budget	3.5	1.8	5.3
Ministry of Planning and International Co-operation – Basic Education budget	-	8.0	8.0
Ministry of Labour – Vocational Training Corporation	10.2	-	10.2
Total	942.8	120.7	1,063.5

[1] General Budget Department

A.2 Strategy costing methodology

The costs of implementing the strategy have been built up by looking at the individual projects which are set out in this document. The costs represent the estimated **additional** cost of implementing this Strategy – that is, the costs over and above those capital and revenue costs incurred in the current delivery of HRD in Jordan (as set out in Figure C.1 above). In some cases, savings may be possible from existing budgets in the same time line as implementation of the Strategy; any such savings have not been estimated here.

All costs to the public sector have been included, regardless of whether they are funded as part of general public expenditure in the Kingdom, donor funding or other funding methods. All costs to be borne by the private sector are however not included, and funds to be disbursed by the Skills Development Fund are also excluded. Since the TVET sector involves the greatest proportion of private sector costs, the magnitude of TVET initiatives will be significantly larger than implied by these estimates of public sector costs.

Individual project costs have been estimated on the following bases:

- For projects for which the total cost over the ten years of the HRD Strategy is estimated to be less than JOD 1million, a simple broad brush allowance of JOD 500,000 has been used as an average for each such project. In most cases, these are projects which require the formation of a project team to introduce a change in the HRD system and relatively small scale others costs but which have no significant capital costs or changes to the ongoing revenue cost base. This JOD 500,000 allowance is assumed to fund the project for the period of time that is required in the Implementation Roadmap set out in this document. This is an average and not the specific cost of each project which will in practice vary according to the duration of the project, the workload and intensity of the work, the extent to which work is carried out by those already working in the system, the extent to which external or contract capacity is engaged, and the mix between project managers and subject specialists.
- For projects estimated to cost more than JOD 1million which will create an ongoing change to the revenue costs of running the HRD system, estimates have been made in each case for what those impacts will be. Where previous projects have been defined in similar areas, those have been used as the basis of updated estimates. Where no such prior calculations are available, costs have been defined on the basis of available international comparisons. Where costs are likely to be driven by the number of learners in the system, appropriate estimates of population growth have been used.
- For projects estimated to cost more than JOD 1million where a capital cost is involved, estimates have been created based on appropriate benchmarks for construction or other capital costs.

All figures are stated at 2016 prices to allow for appropriate comparisons to be made between years. Inflation over the period will need to be applied to actual funding requirements at the time.

The analysis shows the level of funding required and does not seek to show the mix of public and donor funds that will be involved.

A.3 Summary of costs

Figure C.2 overleaf shows the overall level of capital and revenue funding required.

Figure C.2 Estimated costs of implementing the HRD Strategy

		Cost in each year - capital and revenue breakdown										
		1	2	3	4	5	6	7	8	9	10	TOTAL
ECED	*Capital Costs*	16,074,471	16,074,471	16,074,471	16,074,471	16,074,471	9,644,683	9,644,683	9,644,683	9,644,683	9,644,683	128,595,768
	Revenue costs	22,154,580	24,472,568	26,125,451	28,836,531	31,233,360	32,167,158	33,928,106	35,566,304	37,331,902	39,099,950	310,915,910
Basic and Secondary	*Capital Costs*	7,560,250	127,716,313	120,400,848	120,000,000	120,000,000	120,000,000	100,000,000	100,000,000	100,000,000	100,000,000	1,015,677,411
	Revenue costs	176,642,492	201,942,159	202,723,790	47,005,441	46,687,088	47,803,647	47,646,825	51,056,053	54,648,342	57,943,313	934,099,150
TVET	*Capital Costs*	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
	Revenue costs	6,923,840	6,119,868	2,719,861	2,637,911	2,061,110	2,061,110	2,061,110	2,061,110	2,061,110	2,061,110	30,768,140
Higher Education	*Capital Costs*	5,000,000	5,000,000	5,000,000	-	-	-	-	-	-	-	15,000,000
	Revenue costs	70,392,837	71,120,112	87,795,088	120,896,730	137,482,003	154,260,000	171,060,000	188,060,000	205,060,000	222,060,000	1,428,186,770
Implementation	*Capital Costs*	-	-	-	-	-	-	-	-	-	-	-
	Revenue costs	1,445,200	1,611,866	1,361,867	1,361,867	1,070,200	1,070,200	1,070,200	1,070,200	1,070,200	1,070,200	12,202,000
TOTAL		306,693,669	454,557,358	462,701,376	337,312,951	355,108,232	367,506,798	365,910,924	387,958,350	410,316,237	432,379,256	3,880,445,149

APPENDIX D – REFERENCES

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