منتدى الاستراتيجيات الأردني
JORDAN STRATEGY FORUM

K-12 & Vocational Education Sector

Jordan's Economic Vision Roadmap

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The Jordan Strategy Forum (JSF) is a not-for-profit organization, which represents a group of Jordanian private sector companies that are active in corporate and social responsibility (CSR) and in promoting Jordan's economic growth. JSF's members are active private sector institutions, who demonstrate a genuine will to be part of a dialogue on economic and social issues that concern Jordanian citizens. The Jordan Strategy Forum promotes a strong Jordanian private sector that is profitable, employs Jordanians, pays taxes and supports comprehensive economic growth in Jordan.

The JSF also offers a rare opportunity and space for the private sector to have evidence-based debate with the public sector and decision-makers with the aim to increase awareness, strengthening the future of the Jordanian economy and applying best practices.

For more information about the Jordan Strategy Forum, please visit our website at www.jsf.org or contact us via email at info@jsf.org. Please visit our Facebook page at Facebook.com/JordanStrategyForumJSF or our Twitter account @JSFJordan for continuous updates aboutJordan Strategy Forum.

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This is an expert opinion report based on discussions and focus group meetings held by the Jordan Strategy Forum (JSF). The overall objective of this effort is to analyze different sectors (14) of the Jordanian economy and their respective challenges, and come-up with practical solutions and initiatives to enhance their competitiveness. Throughout this exercise, the JSF facilitated the focus group meetings, and supported the work-stream managers with any needed research and logistics.

Acknowledgment:

The JSF would like to extend its appreciation to the following work-stream members of the **K-12 & Vocational Education sector**, who contributed to the focus group meetings, and in editing the proposed initiatives and sectoral report:

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1. Introduction

It is simply accurate to state that school education is a right and not a privilege. Indeed, and as a human right, education should be legally guaranteed for all and without discrimination, and that governments are obliged to protect, respect, and fulfil the right to education. After all, when basic education begins at school level, knowledge and linguistics skills are imparted to children.

It is common knowledge that school education provides students with the opportunity to acquire knowledge in various fields such as science, literature, mathematics, history, and many other subjects. In addition, while education shapes young children's curious mind, it allows them to develop their personalities, social skills, interests, communication skills, critical thinking and problem solving skills, creative skills, decision making skills, collaborative skills, and even in management skills.

The education system in Jordan comprises of compulsory ten years of basic education (6 to 16 years old), and two years of either secondary academic or secondary vocational schooling (16 to 18 years old). As one might expect, the Ministry of Education is responsible for school education.

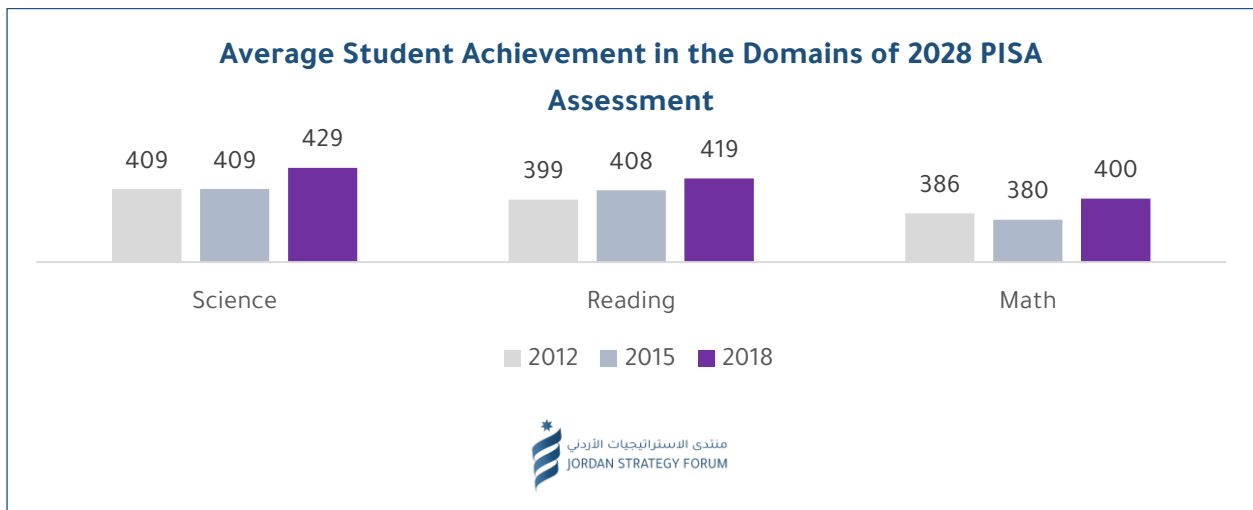**The education system in Jordan is relatively large.**
1.   The total number of students has increased from 1,628,481 in 2009/10 to 2,151,670 during the academic year 2019/20 or by about 32.1%. Within this context, however, it is useful to note that the number of students attending the private sector has increased by 55.6% and this ratio is much higher than that of the ministry of Education students (28.0%). In addition, it is also interesting to note that the number of students attending private schools is equivalent to 39.4% of those who attend Ministry of Education schools, and this ratio is high relative to most if not all countries.

No. of Students					
Students	**Total**	**Education Ministry**	**Other Governmental**	**Private**	**UNRWA**
2009/10	1,628,481	1,129,448	13,225	365,905	119,903
2015/16	1,899,280	1,265,216	17,845	499,467	116,752
2019/20	2,151,670	1,445,240	18,345	569,504	118,581
Increase	**32.1%**	**28.0%**	**38.7%**	**55.6%**	**-1.1%**

2. The total number of teachers has increased from 99,449 in 2009/10 to 140,291 in 2019/2020 or by about 41.1%. Within this context, however, it is useful to note that the number of private schools has increased by 79.4% and this ratio is much higher than that of the Ministry of Education schools (30.0%).

No. of Teachers					
Teachers	Total	Education Ministry	Other Governmental	Private	UNRWA
2009/10	99,449	69,693	1,172	24,079	4,505
2015/16	121,018	79,079	2,052	35,495	4,392
2019/20	140,291	90,567	2,033	43,205	4,486
Increase	**41.1%**	**30.0%**	**73.5%**	**79.4%**	**-0.4%**

3. In the academic year 2019/2020, the proportion of male students attending vocational education was equal to 14.5%. For females, this ratio was equal to 10.2%. In private schools, these proportions are 2.8% for boys and 0.4% for girls. In addition, it is useful to note that in the Ministry of Education and private schools, the ratios of students to teachers are equal to 16.0 and 13.2 respectively.

4. It is encouraging to realize that the performance of Jordan's students in PISA's three subjects have improved. However, the scores of students in Singapore and the OECD countries are much higher than in Jordan. In addition, and relative to the participating Arab countries, Jordan's scores are not that bad.

Average Student Achievement in the Domains of 2028 PISA Assessment

	Science	Reading	Math
2012	409	399	386
2015	409	408	380
2018	429	419	400

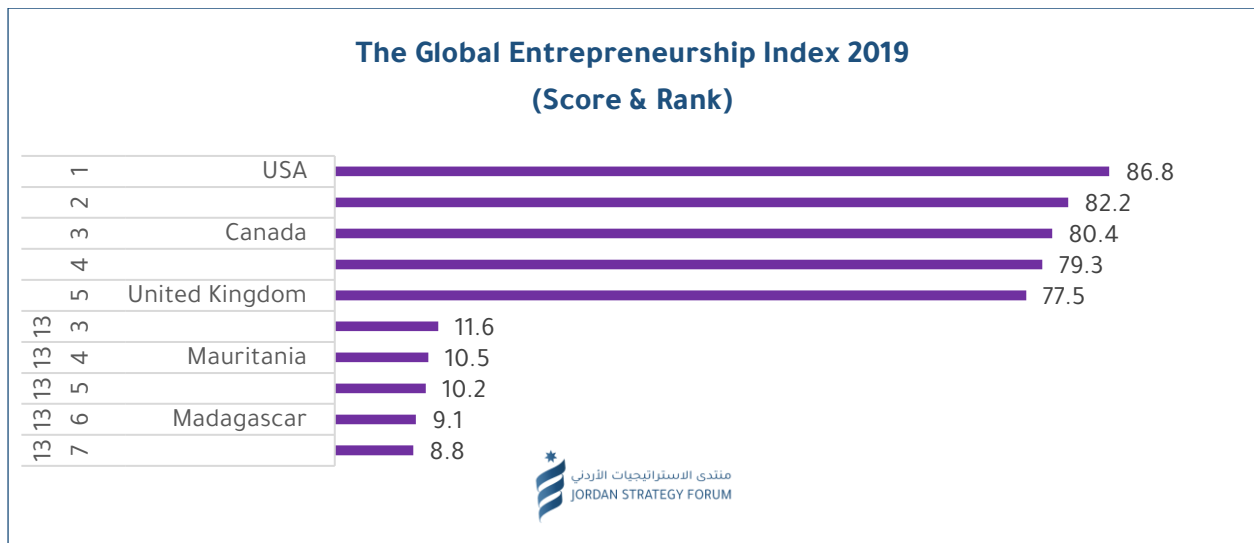| Average Student Achievement in the Three Domains of the 2018 PISA Assessment			
Country / Region	Science	Reading	Math
Singapore	551	549	569
OECD	489	487	489
UAE	434	432	435
Jordan	429	419	400
Qatar	419	407	414
Saudi Arabia	386	399	373
Lebanon	365	353	366

Moreover, it is useful to note that the Global Entrepreneurship and Development Institute (GEDI) provides an evaluation on the level of the entrepreneurship ecosystem for countries. In 2019, the latest report for the Global Entrepreneurship Index was launched to assess the entrepreneurial ecosystem for 137 countries.

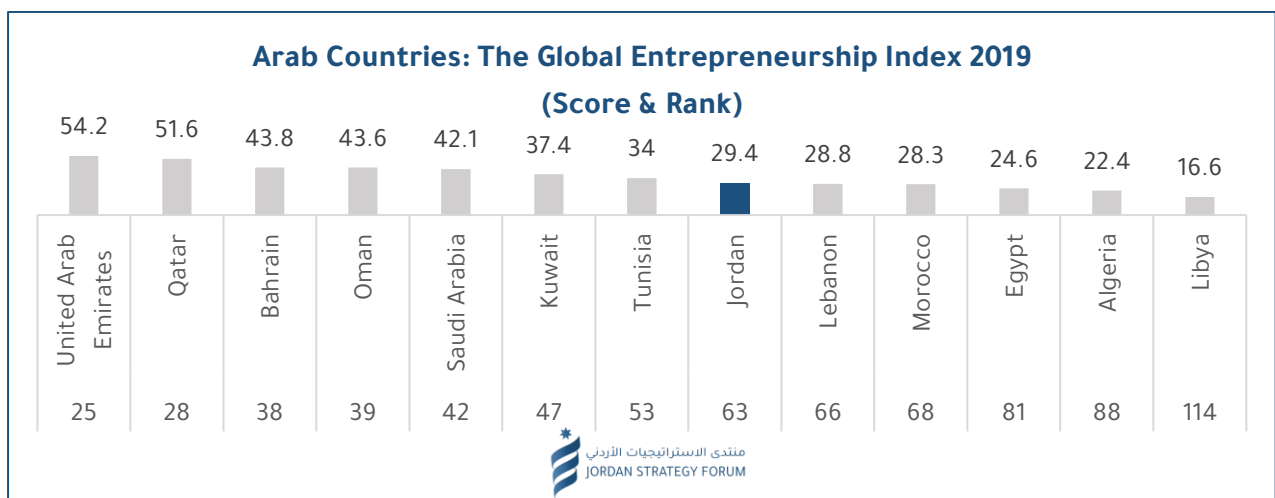**The GEI is composed from 3 main sub-indices, each contains a variety of indicators:**

A. **Entrepreneurial Attitudes:** "Aims to measure societies' attitudes toward entrepreneurship, which we define as a population's general feelings about recognizing opportunities, knowing entrepreneurs personally, endowing entrepreneurs with high status, accepting the risks associated with business startups, and having the skills to launch a business successfully."
   - Sub-Indices: Opportunity Perception, Startup Skills, Risk Acceptance, Networking, and Cultural Support.

B. **Entrepreneurial Abilities:** "refer to the entrepreneurs' characteristics and those of their businesses. Different types of entrepreneurial abilities can be distinguished within the realm of new business efforts."
   - Sub-Indices: Opportunity Startup, Technology Absorption, Human Capital, and Competition.

C. **Entrepreneurial Aspirations:** "Reflects the quality aspects of startups and new businesses. Entrepreneurial aspiration is defined as the early-stage entrepreneur's effort to introduce new products and/or services, develop new production processes, penetrate foreign markets, substantially increase their company's staff, and finance their business with formal and/or informal venture capital."
   - Sub-Indices: Product Innovation, Process Innovation, High Growth, Internationalization, and Risk Capital.

Below, we outline a number of observations on Jordan's standing on the Global Entrepreneurship Index (GEI).

1. The best performing countries were USA, Switzerland, Canada, Denmark, and the United Kingdom, with the respective scores 86.8, 82.2, 80.4, 79.3, and 77.5.
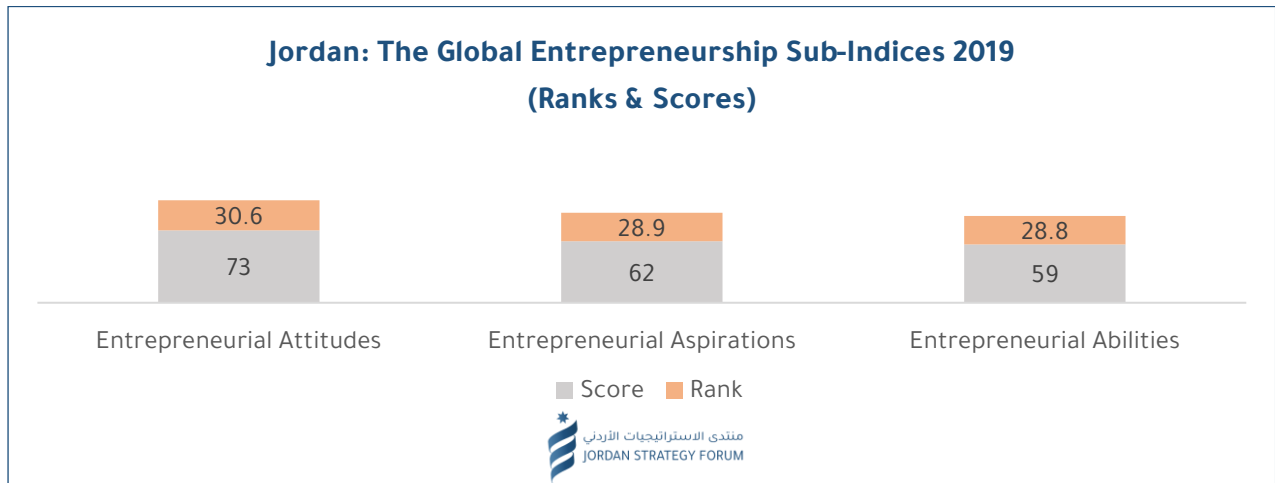
The Global Entrepreneurship Index 2019
(Score & Rank)

Rank	Country	Score
1	USA	86.8
2		82.2
3	Canada	80.4
4		79.3
5	United Kingdom	77.5
133		11.6
134	Mauritania	10.5
135		10.2
136	Madagascar	9.1
137		8.8

2. Regionally, the UAE tops the Arab countries with a global ranking of 25/137 and a score of 54.2/100. Jordan comes in at 8th out of 13 Arab countries, and on the global level, Jordan ranks 63/137 and scores 29.4/100.

Arab Countries: The Global Entrepreneurship Index 2019
(Score & Rank)

Country	Score	Rank
United Arab Emirates	54.2	25
Qatar	51.6	28
Bahrain	43.8	38
Oman	43.6	39
Saudi Arabia	42.1	42
Kuwait	37.4	47
Tunisia	34	53
Jordan	29.4	63
Lebanon	28.8	66
Morocco	28.3	68
Egypt	24.6	81
Algeria	22.4	88
Libya	16.6	114

3. As for Jordan's performance on the sub-indices, clearly, the country performs the weakest in "entrepreneurial abilities".

Jordan: The Global Entrepreneurship Sub-Indices 2019 (Ranks & Scores)

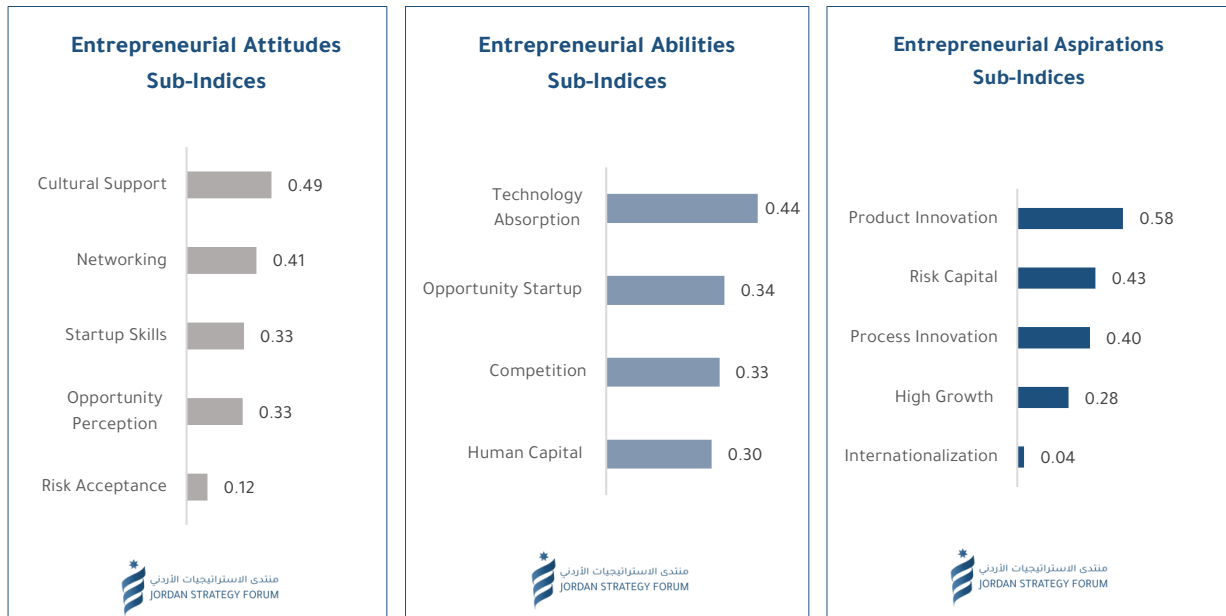|	Entrepreneurial Attitudes	Entrepreneurial Aspirations	Entrepreneurial Abilities
Rank	30.6	28.9	28.8
Score	73	62	59

Score   Rank

4. Within the context of the above-mentioned, it is useful to note that Jordan was listed among the countries with the biggest declines in the GEI Score. Jordan's performance deteriorated in score by 7.1 and by 14 in ranking.

Biggest Declines in GEI Score				
Country	**Score 2019**	**Score 2018**	**Difference in Score**	**Difference in Rank**
Tunisia	42.4	34	-8.4	-13
Jordan	**36.5**	**29.4**	**-7.1**	**-14**
Lithuania	51.1	44.1	-7	-8
Macedonia	29.1	23.1	-6	-19
Uruguay	35	30.1	-4.9	-9
Turkey	44.5	39.8	-4.7	-7
Costa Rica	33.3	28.8	-4.4	-9
Brazil	20.3	16.1	-4.2	-20
Colombia	38.2	34.1	-4.1	-5
Belize	30	26.2	-3.8	-9

5. In order to outline the major contributors that deteriorate Jordan's standing on the index, we illustrate in the below figures the sub-indices for each pillar by order from the largest to the lowest scores (0 - 1).

Entrepreneurial Attitudes Sub-Indices

Cultural Support	0.49
Networking	0.41
Startup Skills	0.33
Opportunity Perception	0.33
Risk Acceptance	0.12

Entrepreneurial Abilities Sub-Indices

Technology Absorption	0.44
Opportunity Startup	0.34
Competition	0.33
Human Capital	0.30

Entrepreneurial Aspirations Sub-Indices

Product Innovation	0.58
Risk Capital	0.43
Process Innovation	0.40
High Growth	0.28
Internationalization	0.04

In a Nutshell, Jordan's performance on the Global Entrepreneurship Index clearly leaves a lot to be desired. In order to enhance Jordan's standing on the index, all relevant stakeholders should look into addressing the weakest sub-indices per each pillar as demonstrated in the above figures.

Relative to the above-mentioned observations, the purpose of this effort, organized by the Jordan Strategy Forum (JSF), is to conduct Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis of the "higher education" sector in Jordan. Naturally, the objective of this exercise is to determine few strategic objectives for the sector, and outline a number of initiatives, whose objective is to develop the sector further during the next 8 to 10 years.

To realize the objectives of this exercise, naturally, the JSF needs the opinion of experts, whose sector-specific knowledge and experience are valuable. This is why the Forum has organized focus group meetings to discuss the overall objectives and plan for the exercise, fill the SWOT matrix results, agree on the overall objectives, and to recommend few initiatives.

2. Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

In terms of the strengths, weaknesses, opportunities, and threats of the K-12 & Vocational Education sector in Jordan, the team members see the followings:

A. Strengths:

1. Access to elementary and secondary education, and closing the gender gap in education.

2. High enrolment rates and low dropout rates.

3. Availability of qualified teachers, and a platform for effective training, qualification, certification and incentive mechanisms.

4. A structure to revise and upgrade the curricula is in place with a number of successful implementation of revised and new curricula.

5. Success stories exist of private and public schools, specifically in female schools offering quality education, these models should be identified and replicated.

6. Recent approach to engage educational partners and experts beyond the ministry.

B. Weaknesses:

1. Outdated and irrelevant curricula and teaching methods, and poor support facilities contributing to skills mismatch.

2. Learning is mostly theoretical, practical dimension (Including applied science courses and topics) is very weak and in many cases non-existent.

3. Some curricular courses and activities (sports, art, music) are ignored, affecting students' physical, psychological and mental health.

4. Traditional teaching, learning and assessment are not competency based.

5. Accessibility and utilization of technology.

6. Student to teacher ratio, leading to teachers' inability to control large classes.

7. Teachers preparation and training.

8. Budget related challenges affecting teachers' wages and schools infrastructure and facilities.

9. Highly centralized system with no autonomy or budget for schools.

10. Weak institutional capacity (specifically in relation to governance) and performance in areas such as accountability, communication and data collection.

11. Cultural related challenges, including Lack of ownership, apathy, resistance to change, schools bullying and inhospitable environment.

C. Opportunities:

1. Technology offers a chance to advance quality of education, supported by the focus and attention on progress of digitization and advancement of online education.

2. Availability of a comprehensive HRD strategy and education strategies to advance education.

3. Political will to reform education and general awareness on the importance and the urgency of addressing the quality of education, including quality assurance (accreditation & qualification).

4. Donor funding and potential strategic partnerships with the private sector and regional and international donors, specifically to integrate digital technologies and innovation within education.

5. Feminization of education paves the way to improve boys' education.

Threats:

1. Instability due to constant changes in laws, policies, and leadership.

2. Influx of refugees and migrants overburdens the education system.

3. General economic deterioration, affecting the budget set for education.

4. Cultural barriers, specifically high resistance to change affecting education reform.

5. Intellectual and academic brain drain.

6. Widening gap (competencies, academic, digital) between public and private schools leading to higher disparities and social injustice.

3. Strategic Objectives:

Based on the results of the SWOT analysis, the work stream members envisage the following objectives:

1. Enhance quality of education through revamping curricula (including art, music, and sports), and learning and teaching methods, with attention to addressing entrepreneurial and soft skills, as well as social and emotional intelligence.

2. Engage stakeholders, experts and the private sector in the integration of innovation and digital technologies in the transformation towards education 4.0.

3. Invest in expanding, enhancing, and better utilization of schools infrastructure, technological readiness, and exploratory and technology enabled spaces.

4. Improve institutional performance through ensuring good governance and the development and utilization of education strategies.

5. Enhance the competencies of the teaching and administrative staff through the utilization of higher education institutes and other existing platforms.

6. Address the financial gap through enhancing efficiency, sustainability, and collaboration with stakeholders and international partners.

4. The Initiatives

Objective 1:

Enhance quality of education through revamping curricula (including art, music, and sports) and learning and teaching methods, with attention to addressing entrepreneurial and soft skills, as well as social and emotional intelligence.

First Initiative: Education for the future: Promotion of classroom practice and pedagogy and increasing school productivity.

Objective of Initiative: Improve K-12 education through introducing newly developed curricula and significantly changing the classroom-learning environment.

Description of Initiative: Curriculum in its totality includes all the learning experiences provided in and out of classroom, with the help of subjects studied that provide knowledge and with learners' competencies and attitude resulting in productive behavioural changes in an atmosphere of interaction with knowledge and competencies.

The National Centre for Curriculum Development has embarked on the development of K-12 curricula since 2019 utilizing international standards and best practices.

Re-emphasize the importance of teaching art and sports education within the school curriculum.
The public education system in Jordan must scale up effective tutoring models through national service programs, fellowships, and high quality virtual tutoring.

Attention to building and nurturing an entrepreneurial mind-set, that allows creativity, capturing opportunities, problem solving, innovation, and the possession of a business development mind-set, is of great importance, especially with the growing numbers of youth unemployment rates and the inability of the existing sectors to create sufficient jobs.
Teachers should be supported, trained, and paid well like professionals. Teachers should receive supported training similar to that of medical residents (teacher residency models) before becoming responsible for leading a classroom of their own. More experienced teachers should receive satisfactory salaries, as lower teacher pay is one of the factors contributing to disinterest in or attrition from the teaching profession.

Increase educational productivity via innovative approaches and best practices, like: competency - based learning (personalized learning), use of technology in teaching and learning, better use of community resources, process improvement, flexibility to ease requirements and mandates, organization of the teaching force, teacher professional and career development, and teacher compensation.

Adoption of student cantered classroom instructions and utilization of teacher strategies for engaging students and promote classroom-oriented tasks.

Improve student performance through motivation strategies and parent engagement.

Implementing Responsibility (owner):
- Ministry of Education.
- National Centre for Curriculum Development.

Partners and Stakeholders:
- Ministry of education.
- K-12 schools/institution.
- Ministry of Finance.
- NCCD.
- Parents.
- NGOs (the Social Sector)

Private & Social Sector Role:
- Teacher training.
- Curriculum development.
- Consultancy.

Enabling Factors:
- Support of decision makers.
- Available funds.
- Teacher motivation and involvement.
- Parent involvement and motivation.
- Monitoring and follow up.

Outcomes of Initiative:
- High quality educational program.
- Improved learning outcomes.
- Improved student knowledge and competencies.
- Improved teachers' skills and experience.
- Development of modern curriculum according to international standards.

Key Performance Indicators (KPIs):

- Improved performance of Jordanian students in international assessments like PISA and TIMSS.
- Improvements in Arabic and English literacy assessment.
- Improved students' soft skills, critical thinking and problem solving.
- Improves entrepreneurial mind-set and healthy attitude.
- A decline in private tutoring.
- Increased community satisfaction about students' performance.

Past Attempts & lessons learned: No serious documented attempts were made although it was advocated for long periods of time.

Budget: JD $40x10^6$ annually.

Possible Sources of Funding:
- National budget.
- International donations and grants.

Duration of Initiative: 10 years.

Handover/Sustainability of Initiative: Continuous initiative to be implemented by the concerned stakeholders.

Objective 2

Engage stakeholders, experts and the private sector in the integration of innovation and digital technologies in the transformation towards education 4.0.

First Initiative: A Digital and Innovative Technologies Unit at the Ministry of Education (MoEd).

The establishment of a competent specialized unit within the Ministry of Education (or the reinvention of the existing unit) similar to the Development Coordination Unit (DCU). Attracting competent human and financial resources for Jordan's Youth, Technology and Jobs Project at the Ministry of Digital Economy and Entrepreneurship can serve as a model. A Digital and Innovative Technologies Unit would serve the following purposes:

- Identifying the capacity (human and other resources) and needs of the public education system through consultation with private sector, non-governmental and independent / not-for-profit educational institutions. This includes the top schools and colleges which already model success in quality offerings or, in the case of vocational education, employability.

- The establishment of partnerships with the private and social sectors to benefit the public sector from existing and continually updated digital innovations and programs. The pace of technological development is too fast for the public system to keep up and they can become irrelevant or outdated very easily. Owners are invested in keeping their products up to date.

Many platforms are driven by 'for the public good' missions. The investment of financial resources would be reduced, even and especially those targeted at professional development. Pilots involving virtual conferencing, digital learning software, content and media libraries for teachers and students, innovations like Minecraft in Melbourne, collaborative and versatile platforms that educators can use across subjects to encourage 21st century skills.

In 2021, the World Bank, in partnership with the Ministry of Digital Economy and Entrepreneurship, the Ministry of Education, and INJAZ, have conducted a digital skills gaps analysis that identify the digital competencies gap among students and computer science teachers, and assess the public schools digital readiness.

Objective of Initiative: To bring digital and innovative technologies into mainstream education / the public sector by improving the Ministry's ability to introduce and assess its own systems and learning technologies.

Description of Initiative: To identify public sector capacity and needs, and partner with providers of digital and innovative technologies (who keep their products up to date) to increase capacity and fill the gaps in primary and secondary education as well as technical and vocational education.

Implementing Responsibility (owner): Ministry of Education

Partners and Stakeholders:
- Ministry of Digital Economy and Entrepreneurship.
- K-12 schools.
- Not for profit organizations working in educational innovation.
- Edtech companies.
- Donor agencies.

Private Sector Role: As leaders in innovation and digital technologies, they are not only up to date on products but are also the employers of future generations of graduates.

Enabling Factors: The pandemic and move to online education has shown where gaps lie and the experience of teachers and students as well as administrators and planning departments can inform the project.

Outcomes of Initiative: The integration of new technologies in the educational system.

Key Performance Indicators (KPIs):
- Establishment of the DITU.
- Financing and resourcing needs
- Survey of existing capacity.
- Survey of needs and gaps.
- Identifying needs.
- Identifying products.
- Identifying partners.
- Identifying donor agencies.
- Implementation.
- Monitoring and Evaluation.
- Impact assessment.

Long term:
- Commitment of teachers to continual professional.
- Development.
- levels of student engagement achievement and performance

Past Attempts & lessons learned: Online schooling experiences during the pandemic, in addition to successful and failed past partnerships with digital technologies providers.

Possible Sources of Funding: Donor agencies and budgetary allocation
.

Duration of Initiative: 3 - 5 year cycles; 3 years till assessment, then another 2 years refining and creating a cycle of updating, fine tuning and professional development.

Handover/Sustainability of Initiative: the initiative is the Ministry's responsibility, the ministry should develop its capacity to manage and sustain the initiative.

Second Initiative: Coding and basic computing and science boot camps for girls.

Objective of Initiative: To bring girls into STEM and Technology/ Coding, bringing digital technologies into mainstream education / the public sector.

Description of Initiative: Boot camps and summer programs targeting girls to reverse the rising lack of interest in the sciences amongst girls, and address a missed opportunity for economic and social development.

Implementing Responsibility (owner): Ministry of Education.

Partners and Stakeholders:
- Ministry of Digital Economy and Entrepreneurship.
- Not for profit organizations working in educational innovation.
- Private companies interested in science and technology.
- Donor agencies focused on girls' education and on STEM and Technology.

Private Sector Role:
- Identifying the skills needed in the market.
- Bringing expertise and/or ready programmes.
- Interning students.

Enabling Factors: Girls are enrolled in very high numbers in school and are academic achievers. The integration of women into the workforce will be easier with jobs that can be carried out remotely like coding.

Outcomes of Initiative: The integration of new technologies in the educational system targeting girls.

Key Performance Indicators (KPIs):
- The identification of coding boot camp and science camp content.
- Training teachers and supervisors.
- A pilot involving 10 schools in year 1 with a specific number of girls taking part in each.
- Identifying 10 schools with the facilities and the leadership as well as human resources.
- Funding for the pilot.
- Implementation.
- Monitoring and Evaluation.
- Impact assessment.

Past Attempts & lessons learned: "Busma" was a summer camp experiment and the experience can be useful in starting the pilot.

Possible Sources of Funding:
- Partner industries like pharmaceuticals and ICT companies.
- Donor agencies.

Duration of Initiative: 1 summer pilot to be expanded in years 2 and 3 to 30 schools, and introducing more summer camps as well as boot camps during the year.

Third Initiative: Integrating concepts of relevant innovation and digital technologies learning across subjects.

Objective of Initiative: To bring digital and innovative technologies into mainstream education / the public sector.

Description of Initiative: Our curricula and classroom teaching to bring technology to the forefront to allow students to learn how technology is changing the world we live in from health and medicine to banking to future mobility, social media virtual reality and artificial intelligence, the ethical and moral issues surrounding technology.

Implementing Responsibility (owner):
- Ministry of Education
- National Centre for Curriculum Development
- Ministry of Digital Economy and Entrepreneurship

Partners and Stakeholders:
- Experts in various topics.
- Curriculum experts.

- UNESCO and other agencies interested in regulating and standardizing AI for example or self-driving cars.
- NGOs specialized in education and digital competencies.

Private Sector Role: ICT and leading technology companies should lend their expertise and that of global companies they may represent, from Amazon to Uber to Expedia.

Outcomes of Initiative: Exploring the ramifications of new technologies in the educational system.

Key Performance Indicators (KPIs):
- Setting grade level or Subject Matter level strategies
- Professional Training

Past Attempts and Lessons Learned: INJAZ, in partnership with the MODEE, the MOE, and the World Bank, have developed a comprehensive learning framework for digital competencies, covering the grades 7 - 12.

Duration of Initiative: Curriculum development and appraisal cycles.

Handover/Sustainability of Initiative: Curricula are with the NCCD and the Ministry and the cycle of curricular review/teacher training/evaluation is meant to be guaranteed.

Objective 3:

Invest in expanding, enhancing, and better utilization of schools infrastructure, technological readiness, and exploratory and technology enabled spaces.

First Initiative: Create a positive enabling environment that is conducive towards ensuring access to quality education with the integration and utilization of educational technology.

Objective of Initiative: Maximum utilization of schools as an educational platform to provide equal quality learning opportunities for pupils living in Jordan regardless of sex, age, or nationality. Schools should utilize educational technology and exploit technology in hybrid learning modalities.

Description of Initiative:
- Enhance school reform through expanded learning, which can be an effective strategy to promote student performance and turn around low-performing schools.
- Promote a unified vision of expanded learning that includes core elements, appropriate outcome, and reasonable impact indicators.
- Transition to an 8- to - 4 school day to expand learning opportunities and to better fit parents' needs.
- Create a safe and healthy environment in every school and eliminate crumbling school buildings.
- Create a national school infrastructure program that will update school buildings while simultaneously creating jobs in local communities.
- Provide leadership for powering education at all levels of learning with technology.
- Develop national technology policy and ensures that the Ministry of Education programs take advantage of the productivity and learning opportunities technology can provide.
- Connect all schools to a national Wi-Fi network and utilize cloud computing.
- Utilize a national distance learning platform, digitize curriculum, and establish a national open educational resource center.
- Target school-aged children, youth, parents and caregivers with the aim of building safe learning spaces at home and in schools and creating a positive enabling environment that is conducive towards ensuring access to quality education for all.
- Move towards digital learning and use of education technology in a context of deep and persistent inequality as education equity has likely been impacted the most by the crisis deepening existing economic disparities.
- Address the school's inability to keep pace with the deep and rapid transformations in information and communication technology.
- Address the low rate of utilization of the tremendous learning potential provided by technology in light of the shift to distance learning and blended learning.

- Treat the widening gap between school outcomes according to the difference in the region, and the lack of educational services in the periphery of the country, and the popular areas.
- Present the initiative in a system of modern and advanced educational programs that support the educational process in line with the developments of the times, integrate technology in education, focus on spreading active learning, and provide a supportive educational environment that helps creativity and innovation, application of global standards, and benefit from successful experiences.
- The initiative should also focus on involving all parties to the educational process, and the integration of parents and society.

Implementing Responsibility:
- Ministry of Education (owner)
- Local community
- NGOs
- Volunteers

Partners and Stakeholders:
- Ministry of Education
- Students
- Teachers
- Local community

Private Sector Role:
- Execution of initiative
- Provides training opportunities
- Consultancy
- IT logistics

Enabling Factors:
- Flexibility of decision-making
- Availability of funds
- Availability of Volunteers
- Local community collaboration
- Connectivity an availability of IT hardware and software

Outcomes of Initiative:
- Improved utilization of schools
- Expanded learning opportunities
- Establishment of after school programs
- Bridging the digital gap

- Improved learning outcome

Key Performance Indicators (KPIs):

- Increased satisfaction of local community
- Improved performance in formal assessments
- Improved learning outcome
- Improved digital skills
- Reduced social violence

Past Attempts & lessons learned: None

Budget: JD 5×10^{6} annually

Possible Sources of Funding:

- National budget
- Private sector donations
- International Donors

Duration of Initiative: 5 years

Handover/Sustainability of Initiative: Local government

Objective 4:

Improve institutional performance through ensuring good governance and the development and utilization of education strategies.

First Initiative: School leadership enhancement as a strategy towards developing and using education strategies as well as connecting with the local community to allow helpful informed feedback and support for all school initiatives and to create terms of reference for accountability to staff, teachers, parents and not least students.

School principals are key to the effective use of educational strategies and to developing key relationships with stakeholders at the community level.

Training and mentoring as well as virtual conferencing with other educational leaders are key. Leadership enhancement programs are available inside Jordan and elsewhere. Developing standards for effective leadership at the school and community level is a collective effort and master trainers and mentors from amongst their own ranks is strategically important.

Objective of Initiative: To develop capacity at the institutional level to lead effectively on educational strategies and community relations.

Description of Initiative: To train and mentor heads of schools to lead on the institutional level.

Implementing Responsibility (owner): Ministry of Education

Partners and Stakeholders:
- Professional training institutions.
- NGOs with leadership enhancement as part of their mission.
- Teachers Union/Teacher Associations or Groupings.
- Donor agencies.

Enabling Factors: Training/Mentoring is available, in some cases free of charge. School principals are hungry for tools to allow them to lead effectively and to distinguish themselves. Programs can be delivered without disruption to work schedules.

Outcomes of Initiative: Effective leaders that take on the responsibility and are accountable for developing their own schools, staff and relationships with their communities and who contribute to the development of educational strategies.

Key Performance Indicators (KPIs):
- Identify 30-50 principals for a pilot.
- Partner with LEM providers and review programs to ensure they deliver all needed leadership components
- Roll out to 300 per year.
- Identify potential leaders and include in programs.
- Develop a system to assess the delivery of trained leaders and their effectiveness in their institutions.

Past Attempts & lessons learned: Such training and mentoring programs have been run successfully for female principals and also for female ministry staff and teachers. Lessons learned can be integrated into wider-reaching programs for both male and female principals.

Possible Sources of Funding:
- Donor agencies
- Community Based Organizations

Duration of Initiative: Continuous

Handover/Sustainability of Initiative: The Ministry should integrate such programs once their impact assessment shows they are mature for handing over in totality to the Ministry although partners might find it easier to secure funding and continue to assume responsibility.

Second Initiative: Strengthening systems at the MoE level to ensure the development of effective educational strategies and oversee their utilization.

Objective of Initiative: To develop capacity at the ministry level to lead effectively on developing educational strategies, standards for their effective implementation and monitoring and evaluation.

Description of Initiative:
- To train middle and top managers to lead on the directorate level.
- To develop more effective systems of oversight and monitoring.

Implementing Responsibility (owner): Ministry of Education

Partners and Stakeholders:
- Professional training institutions in Jordan and abroad

- NGOs with leadership enhancement as part of their mission
- Donor agencies

Enabling Factors:
- Capacity building is strategically important to the ministry and is supported by donor agencies.
- Training programs are highly sought by eligible directors and managers. Systems already exist but they need improvement to bring them up to date with objectives.
- Programs can be delivered without disruption to work schedules or can help build further capacity if they involve week-long or longer absences a few times a year.
- Accountability is key and should be integrated into the appraisal of managers and directors during and after training.

Outcomes of Initiative: Effective leaders who are first equipped with the right tools and attitudes to convene, strategize and oversee implementation then held accountable for impact and results.

Key Performance Indicators (KPIs):
- Identify director and manager level potential trainees.
- Partner with training providers and review programs to ensure alignment with the objectives.
- Implement a pilot in year one.

Possible Sources of Funding: Donor agencies are interested in capacity building and accountability systems.

Duration of Initiative: Continuous

Handover/Sustainability of Initiative: The Ministry should integrate such programs into their annual professional development programs once their impact assessment is assessed. However, partnerships allow wider exposure for the trainee leaders to many influences and practices outside the Ministry and this should be encouraged.

Third Initiative: Governance of Schools

The existing system does not work as it was intended. Communities are not really involved despite PTAs. School boards can be set up on a district basis or any other grouping of schools. Schools should be connected and relevant while parents and community leaders should take more interest in the schools and the future of their students. Ties with the ministry are easily maintained with representation on such district boards, ensuring that laws and regulations are respected but also feedback is delivered and taken into account in order to revisit and reform regulations.

Objective of Initiative: To support schools through effective governance structures that ensure they are relevant and connected to the community and that they allow effective leadership and facilitate learning for all students.

Description of Initiative: Develop a governance structure for schools that involves leaders within larger districts or groupings, allows for positive interaction and collaboration with the ministry and school leadership, and strengthens accountability and school delivery.

Implementing Responsibility (owner): Ministry of Education

Partners and Stakeholders:
- School principals/leaders
- Ministry directorate level officials
- Governors: distinguished and interested members of the larger community, leaders and managers from different sectors
- Community based organisation leaders

Private Sector Role: Representatives of industry, services, etc. in a given region or governorate become involved in the life of a number of schools in a given district or grouping to provide good governance and an extension for the school into a wider than local community and relevance to the economic and other sectors in the region.

Enabling Factors: In the absence of a functioning governance system, there is an opportunity to create structures that allow for more exposure and higher accountability outside rigid Ministry oversight structures.

Outcomes of Initiative: Good effective governance that assists the Ministry, benefits the students and builds a more exposed school leadership at the Principals' and Ministry management levels.

Key Performance Indicators (KPIs):
- Pilot: Identifying a number of schools to be grouped under one district or other categorisation in one governorate.
- Identifying clear objectives for the board
- Setting up rules and regulations to govern the election (or selection?) and function of board members, frequency of meetings, roles and responsibilities, etc.
- Identification of potential board members
- Training of board members
- Monitoring and Evaluation of the experience over the course of one year

Past Attempts & lessons learned: Lessons learned from higher education, with the success and failure/ pros and cons of boards of universities and roles and responsibilities as well as connections to various sectors.

Possible Sources of Funding: Ministry allocation to cover any expenses, which should be minimal.

Duration of Initiative: 2-year pilot to allow for an appraisal of the experience.

Objective 5:

Enhance the competencies of the teaching and administrative staff through the utilization of higher education institutes and other existing platforms.

First Initiative: Licensing all teachers

The need for competent teachers who are skilled learning facilitators and role models for students will depend on mandating standards that allow for any teacher to be licensed. Professional one-year pre-service training is a requirement in most countries and then licensing follows. The same professional standards for new teachers are applicable to existing teachers who will also need to be licensed with online as well as in person training made readily available in modules and in cycles to allow teachers enough time and training opportunities to fulfil licensing requirements.

There is a national strategy to arrive at universal licensing for teachers. A national pre-service program was developed and is now being delivered at more than one university. However, replicating a program across more than one institution of higher education is not guaranteed to provide the desired outcome. A board overseeing the standards to protect the integrity of the program or some other form of oversight is needed.

A third pathway to teaching certification towards licensing is also possible if universities allow potential subject-matter teachers to declare their interest in becoming teachers while in their second year at university. They would then take all the required teacher training that is part of the pre-service qualification program during their third and fourth year at university.

Curricula are reviewed and revised in cycles. 'Continuous' professional training for licensed teachers must be part of that cycle. This guarantees that teachers are always well prepared and their feedback also informs the process and the revised curricula.

Teachers training modules should focus on non-traditional learning and teaching techniques that is based on participatory approaches (active learning), such as flipped learning, project-based, and group work techniques.

Objective of Initiative: Teachers are an essential part of the educational system and their competence and skills are key to developing a competitive workforce, positively engaged citizenry and well-adjusted population.

Description of Initiative: Licensing incoming teachers after a one-year qualifying program post-Bachelors that equips them with everything they need to educate future generations and licensing existing teachers to the same standards, with all teachers undergoing continuous professional development in accordance with curricular review cycles.

Implementing Responsibility (owner): A proposed national entity such as the centre for teacher certification in India or a board such as a national board for professional teaching standards.

Partners and Stakeholders:
- Universities with pre-service teacher training programs
- Accredited teacher training institutions and academies.
- Licensing authority.
- Ministry of Education.
- NGOs specialized in teachers training.

Private Sector Role: The private sector could develop pre-service training / qualification programs if they meet accreditation requirements. In view of the rising demands of a fast-growing local population, displaced populations requiring educational services and the demand on qualified (and in the future on 'licensed') teachers in neighbouring countries, they can provide even more competitive and more demanding programs (to cater to private schools as well.)

Enabling Factors: There is wide spread acknowledgement that Jordan's education system has been in decline and there is a demand at the leadership level and both the people and market place for improved educational outcomes/more competent and employment-ready graduates.

Outcomes of Initiative: The assurance of high-quality teachers in charge of future Generations.

Past Attempts & lessons learned: The pre-service teacher training currently on offer at the University of Jordan was developed and initially delivered in partnership with the Institute of Education at UCL in London. It is of a very high standard and is available for other public universities to use.

Handover/Sustainability of Initiative: The initiative is the Ministry's responsibility until a licensing entity is agreed upon.

Second Initiative: Recruitment and Development of Administrative Staff in the Public Sector

In the same spirit of qualifying and licensing teachers, a similar effort must be dedicated to recruiting and developing the Ministry cadres. Tests for recruits are easily developed and well planned and developed induction programs are necessary in all cases. An effective system of appraisal is needed to ensure that competent staff rise to middle and top

management roles and that they are able to lead with vision and alignment with a central objective.

Objective of Initiative: Induction programs are not difficult to develop and can be tailored to different departments and units at the Ministry or in the directorates and indeed the schools. Appraisal systems must be developed on the basis of identifiable skills, competencies and attitudes. The culture within the Ministry is not easily challenged or changed but the right leaders in key positions can start a virtuous cycle of change that will allow for better capacity building and future leadership.

Implementing Responsibility (owner): Ministry of Education

Partners and Stakeholders:
- Civil Service Bureau
- Universities and Training Institutions
- Not for profit organizations
- Donor agencies

Past Attempts & lessons learned: Online schooling experiences during the pandemic Successful and failed past partnerships with digital technologies providers.
Possible Sources of Funding: Budgetary allocation

Duration of Initiative: Ongoing and continuous

Objective 6:

Address the financial gap through enhancing efficiency, sustainability, and collaboration with stakeholders and international partners.

First Initiative: Reform financial management, promote public and private sector partnership and seek grants and donations to update the schooling system infrastructure.

Objective of Initiative: To improve financial management and promote contributions of private sector and international donors to the educational system in Jordan aiming to build enough schools to accommodate students in Jordan according to international standards.

In a country that faces persistent budget shortfalls, finding ways to pay for new policies is always difficult. Therefore, there should be creative ways to fund education reform initiatives.

Education is at the root of any country's broader economic challenges, and improvement to the education system offer the solution. Employers need talented workers who have the skills, disposition, and knowledge to operate effectively in the new economy. A progressive education agenda can ensure that all Jordanians can afford the education needed to meet these challenges.

Expectations for students and school systems continue to rise while facing the toughest financial challenges of recent history. These dual realities mean that policy makers must do more with the resources they have during these difficult times. Increasing educational productivity by doing more with less will not be easy. It means better education at a lower cost per outcome. This initiative encourages strategic use of existing funds through careful priority listing of actions to improve outcome.

Cost containment is a financial procedure that is very critical in the rationale use of resources. One way to contain cost would be through appropriate use of computer based tutoring, which can yield results similar to one-on-one tutoring in certain subjects, such as science, technology, engineering, and mathematics (STEM) fields.

Economy has largely become knowledge-based over the last several decades, and modern economy has left behind large numbers of workers without a college degree.

Economic disparities and the urban-rural divide have been cemented through the steady increase of private schools especially in the capital Amman, which led upper- and middle-income urban families to send their children to these schools rather than public schools,

leaving the latter to be overwhelmingly attended by children from lower-income and poor households living in the urban peripheries or in rural areas.

The latter are unprepared and unequipped to manage the pressures of this sudden influx of students. Thus, the pandemic more than any other single event has put a spotlight on the socio-economic cleavages in Jordanian society mirrored through the spatial separation of wealthy from poor children in the education system. While upper-level income families will be able to sustain quality education for their children even through repeated periods of homeschooling, the vast majority of middle- and low-income families will not, as their economic resources decrease. As a result, tens of thousands of students are at risk of being left behind.

The majority of public schools in Jordan suffer from poor infrastructure, decline in the standard of welfare, hygiene, and health care, and they have turned into an unpleasant environment.

- Reform financial management by seeking advice from consultants.

Regarding financial efficiency, it is recommended to apply the following three institutional factors to improve public sector performance:

- Decentralization of political power and spending responsibility to subnational governments.
- Appropriate human resource management practices.
- In the education and health sectors, there is evidence that increasing the scale of operations may improve efficiency.
- Increase the use of performance information in budget processes.

Move the focus of decision making in budgeting away from inputs (how much money can I get?) towards measurable results (what can I achieve with this money?).

Focus on four key areas: pursuing innovative practices linked to efficiency; scaling the use of efficient practices; improving the use of established measurement and analytical tools to generate actionable insights; and strengthening management incentives to become more efficient.

Enhance social cohesion through education on the use of tax contributions, revise budget procedures to ensure efficient spending of resources and to improve institutional quality, and reduce corruptive pursuits by targeting the informal economy activities and modifying the rule of law.

Effective financial management, which involves planning, organizing, controlling and monitoring financial resources in order to achieve objectives. Should become part of the key processes and be included in the ongoing planning.

Adopt standard procedures to enhance financial efficiency which include: automation of repetitive tasks, quick and frequent communication, reviewing the supply chain,

improvement of inventory visibility, refinancing debts, offering multiple payment methods, standardization of processes, and setting and tracking benchmarks.

Reduce fragmentation, overlap, and duplication and adopt the principle that there is always room to improve. This can be achieved by adherence to the following principles:

- Ensure that there is a priority based approach to budgeting and spending
- Continue to improve collaboration and joint working, overcoming traditional service boundaries
- Consider using alternative providers of services, if these providers can improve the efficiency, productivity or quality of services
- Improve information on costs, activity, productivity and outcomes, including setting baselines to measure performance against
- Give greater urgency to developing benchmarking programs
- Maintain the momentum of activities and initiatives to improve purchasing and asset management and extend shared services.
- Ensure there is a joined-up approach to efficiency savings across the public sector, avoiding duplication.
- Ensure that plans are in place to deliver savings, clearly setting out what action will be taken, the level of savings to be delivered and how these will be measured.
- Strengthen the involvement of front-line staff, service providers and users in redesigning public services.
- Reduce reliance on non-recurring savings to meet financial targets and generally use these as part of a wider and longer-term strategy.
- Report efficiency savings consistently.
  Allocate budget from national resources, donations, and grants to build enough number of schools over a period of 8-10 years to accommodate all pupils living in Jordan in classes of 25 students per classroom in public schools.

Eliminate crumbling school buildings, eliminate double shift and rented schools, and create a safe and healthy environment in every school.

Perform comprehensive maintenance of all schools and schedule regular periodic maintenance by establishing a national school infrastructure program to update unsafe or unhealthy school buildings and create a national database on the condition of school facilities would also provide thousands of jobs across the country.

Establish partnerships with the private sector. The fundamental core of good partnerships is their ability to bring together diverse resources in ways that can together achieve more: more impact, greater sustainability, and increased value to all.

Implementing Responsibility (owner): The Ministry of Education

Partners and Stakeholders:

- The Ministry of Education.
- The private sector.
- The international community.
- The Local community.

Private Sector Role: Partner

Enabling Factors:

- Political will, support, and leadership.
- Private sector involvement.
- Local community collaboration.
- International community willingness to support.
- Urgent nature of the need to implement the initiative.

Outcomes of Initiative:

- Appropriate utilization of resources.
- Better schooling of students in Jordan.
- Improved educational outcome.
- Improved social cohesion.

Key Performance Indicators (KPIs):

- Number of students per classroom does not exceed 25.
- Active after school programs.
- Better performance of students in national and international examinations.
- Improved utilization of schools by the local community.
- Decreased dependence on private tutoring.

Past Attempts & lessons learned: According to the National Strategy for Human Resource Development 60 schools should have been built annually since 2016. However, the number of schools built since then is short of the original plan due to lack of budget and the pandemic that caused the Ministry of Education to shift to distance learning for the period March 2020 to September 2021.

Budget: JD 150×10^6 annually

Possible Sources of Funding:

- National Budget
- Private sector contribution
- International Donors
- Loans

Duration of Initiative: 10 years

Handover/Sustainability of Initiative: The Ministry of Education

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