

# Capacity Needs and Challenges to Achieve Sustainability in the Arab States

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From  
the People  
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Broadening the Application of the  
Sustainability Science Approach in  
support of the 2030 Agenda for  
Sustainable Development: A Focus on  
regional Experiences and Inputs for the  
development of Sustainability Science  
Policy Guidelines**  
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# Sustainable Development

- Following the publication of Rachel Carson's *Silent Spring* in 1962, attention was drawn towards the relationship between economic growth and environmental degradation
- Brundtland Commission Report "Our Common Future" published in 1987 described sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", i.e., future must be considered when setting decisions about present.



## Sustainable Development

Over the coming 15 years, the world would be obliged to invest around \$90 trillion to achieve sustainable development targets. This is more than twice the current stock of global public capital. Unlike the past two decades the majority of these investments would be spent in the developing countries including Arab countries. Nowadays, most Arabic countries are not investing what is needed to bridge the gaps required to achieve the three pillars of sustainable development.



# Primary Goals of Sustainability

- **End poverty and hunger**
- **Better standards of education, healthcare and sanitation**
- **Achieving gender equality**
- **Sustainable economic growth**
- **Promoting jobs**
- **Improving soil, air and sea health**



# Sustainability Science

- Sustainability science had been introduced in the 21st century at the World Congress "Challenges of a Changing Earth 2001" held in Amsterdam.

It is an academic discipline came into view in response to threats that confront sustainability.

It seeks for restructuring of education R&D and to evaluate practical interventions that promote sustainability in particular places and contexts.

It improves linkages between relevant R&D and innovation communities on the one hand, and relevant policy and management communities on the other.



# Sustainability Science

- **Sustainability science is an academic discipline that come into view in response to threats to sustainability.**
- **It follows wide-ranging, amalgamated solutions to multifaceted problems.**
- **It demands a realignment of existing academic disciplines that has moved inexorably toward fields of in-depth specialization and seeks restructuring of education and R&D that spans multiple disciplines.**



# Sustainability science

**Sustainability science integrate, coordinate and apply knowledge of Earth systems gained from the holistic and historical science, e.g., geology, ecology, climatology, oceanography with knowledge of human interrelationships gained from the social sciences and humanities to evaluate, mitigate, and minimize the consequences, regionally and worldwide, of current and future human adverse impacts on planetary systems and societies across the globe**



# Sustainability Science

Since mid-1980s R&D was accepted as weighty module of sustainable development strategies by the Brundtland Commission's report Our Common Future in 1987, and Agenda 21 plan in 1992 and further developed at the World Summit on Sustainable Development, held in Johannesburg in 2002.



## Capacity Needs in Arab Region

- **Setting systems approach to the development of policies and intervention sustainable strategies.**
- **Full understanding of systems implications to avoid unintended consequences of novel technologies**
- **Application of the current state of scientific knowledge to achieve both short-term continuity and long term ecological integrity**
- **Better understanding of the links between social, economic, and biophysical systems**



## Capacity Needs in Arab Region

- **Selecting intellectual leaders from academia, government, and industry to provide guidance for future R&D and collaborative initiatives that offer pragmatic pathways toward sustainability**
- **Analyzing the root initiates of unsustainability of current economic system, e.g., growth as key to solving political and social problems and advancing society's well-being.**
- **Study of the role of novel technology in aggravating unsustainable social practices and solving the problems they create.**



## Capacity Needs in Arab Region

- **Emerging poor institutional coordination in Arab region in terms of coordination and collaboration between ministries as well as on overall coherence of public policies.**
- **Structuring knowledge as an essential first step in the effort to acquire a comprehensive view of sustainability issues which are both complex and interconnected. This is needed as a response to the requirements of academia, industry and government.**



## National Arab Case Studies

- ❑ In recent years, Egypt, Qatar, Tunisia, Morocco, Lebanon, Jordan, Yemen, Syria, UAE, Jordan and Sudan had formulated new national development strategies, visions and plans based on their national circumstances and priorities addressing sustainable development objectives to varying degrees.
- ❑ **Qatar** has two key strategic planning documents, National Vision 2030 (2009) and National Development Strategy 2011-16 (2011). The National Vision defines trends that reflect the aspirations, objectives and culture of the people of Qatar. Its main goal is to transform Qatar into an advanced country by 2030, capable of sustaining its own development and providing high standard of living for future generations. It addresses four main development pillars: human, social, economic and environmental.



## National Arab Case Studies

- **Algeria** set a Five-Year Development Plan (2010-14) and an Environmental Action Plan for (2001-2011). The Development plan aims to diversify the country's economy in six major axes, human development, basic infrastructure, public service improvement, economic development, unemployment control, R&D and new communication technologies. With the assistance of the World Bank, Algeria finalized its national sustainable development strategy in 2001.
- **Egypt** has a Strategic Framework For Economic and Social Development 2012 – 2022 based on 10 challenges in three phases. Recent efforts are clearly links with annual plans and budget allocations; however, the vision has not been implemented.



# National Arab Case Studies

- **United Arab emirates** has a vision 2021 in place
- **Jordan** is currently in the process of developing a national vision to 2030.
- **Syria** outlined the elements of its comprehensive environmental strategy from 1992, including annual plans, a five -year development plan, and prospective twenty-year plans. Planning is done on a consultative basis.



# Capacity Needs

- **Effective sustainability in Arab world requires a systems approach to develop policies and intervention strategies.**
- **Full understanding of system implications generates risks of unintended consequences of appropriate technologies**
- **Selecting scientific advances needed to better understanding the linked behavior of complex social, economic, and biophysical systems**



# Capacity Needs

- **Emphasizing prerequisites to analyze the root triggers of fundamental unsustainability of the current economic system, such as the emphasis on growth as key to solving political and social problems and advancing society's well-being.**
- **Sustainability science must include the study of the role of technology in aggravating the unsustainable social practices, as well as in solving the problems they create, the macroeconomic theories that presuppose economic growth as a necessary condition for advancing societal well-being, and others.**



# Capacity Needs

- **Selecting the experience and insights of intellectual leaders from academia, government, and industry to provide guidance for future research and collaborative initiatives that offer pragmatic pathways toward sustainability.**

**Knowledge structuring is essential in the effort to acquire a comprehensive view of sustainability issues which are both complex and interconnected.**



# Capacity Needs

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## **Main Challenges & Constraints**

- **Recent establishment programs and/or restructuring**
- **Feeble political strength for environmental agencies**
- **Limited institutional mandate,**
- **Limited budgets**
- **Insufficient use of policy analysis to determine the most effective instruments**
- **Lack of selection criteria for identifying the best policies**



## **Main Challenges & Constraints**

- **Limited technical, human and financial capacity  
Inadequate monitoring of environmental  
conditions & pollution sources**

**Lack of a proper definition of sustainable  
development and indicators  
Absence systematic means to allocate, secure  
& monitor funding.**







***Thank You***