ARAB ENVIRONMENT•9
SUSTAINABLE DEVELOPMENT
IN A CHANGING ARAB CLIMATE

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Section 1
INTRODUCTION

The 2030 Agenda for Sustainable Development was finalized during the United Nations Sustainable Development Summit in September 2015. The core component of the Agenda is the Sustainable Development Goals (SDGs), 17 cross-cutting goals which will guide global action and investment for sustainable development over the next 15 years.

Past strategies in Arab countries lacked the holistic and inclusive approach to development. The 2030 Agenda and its enshrined goals, embracing the economic, social, and environmental perspectives of sustainable development provide a historic and promising opportunity for the well-being of the world's future generations and the planet. In this context, it is critically important for the Arab countries to reinstate a positive track of development to meet the aspirations of their current and future generations for decent living with dignity. However, to achieve sustainable development Arab countries need to address a series of challenges they face, including:

- Political changes, manifested in the significant political turmoil in some Arab countries, are expected to have far-reaching repercussions on achieving the sustainable development goals. Similarly, the challenges of peace and security will pose additional impediment to the process.

- Scarcity of water, energy, and arable land, aggravated by impacts of climate change, and high inefficient dependency of the region on fossil fuels to meet its energy needs, all resulting in extremely high Ecological Footprint.

- Food security threats due to land degradation, water scarcity, and inefficiency of water use in agriculture, and the reliance on imported food products to cover between 50 and 100 percent of the region's food needs.

- climate change impacts, mainly as emphasized in sea level rise, worsening water scarcity, land and biodiversity degradation, food security, and the economic impact on the oil producing countries due to the world's shift to renewable sources of energy.

- Unsustainable consumption and production as a result of extreme demographic changes, rising urbanization, changing lifestyles, and the subsidy policies.

- Population growth of about 2.2 percent, which represents a major driving force for high demand on limited natural resources.

- Heavy subsidies of energy, water, and food led to irrational consumption behaviors, depletion of finite natural capital, misallocation of resources, which have made it difficult to upscale sustainable energy and water options.

Progress on implementation of the SDGs will be greatly influenced by the extent of achievements related to the MDGs over the past 15 years. In this respect, there are notable differences in the region. Some countries have made strong progress on most indicators, such as those of the Gulf Cooperation Council (GCC), while others have witnessed limited or no progress. The Least Developed Countries (LDCs), Iraq, and Palestine have been the weakest performers due to their special circumstances. One of the most remarkable achievements of the region has been its progress towards education targets and extending access to improved sanitation. On the negative side, the region is nearly 20 percent below the target on reducing undernourishment and in providing access to drinking water. In addition, the divide between rich and poor Arab countries in health indicators is big. In addressing the issues, it is critically important to recognize the distinctive

features, priorities, political, and social contexts of Arab countries. Sustainable development priorities and goals in Qatar are certainly different from those in Jordan. And for a country mired in strife, such as Yemen, the needs of a post-conflict era would still be vastly different. Certainly, there are commonalities to build on, and regional cooperation is of paramount importance.

This report builds heavily on the previous AFED reports addressing the major development issues in the Arab region including Water, Agriculture, Food Security, Energy, Green Economy, Sustainable Consumption, and Climate Change. In light of the new political, economic, and social developments, this report highlights the policy options available for the Arab countries in order to realize the Sustainable Development Goals.

A. WATER-ENERGY-FOOD NEXUS

Water security, energy security and food security are inextricably linked in the Arab region. Generally, the region is energy rich, water and land scarce, and food deficient. These inter-linkages are intensifying in the region as demand for resources is increasing with population growth, consumption patterns are changing, and low efficiencies would be further compounded by the impacts of climate change. The current water-energy-food-climate policy landscape in the Arab region is complex and fragmented; this necessitates the crucial need to adopt the integrated nexus approach when addressing the management of those three vital resources.

B. POVERTY, AGRICULTURE AND FOOD SECURITY

Poverty is one of the major challenges in the region, which has been increasing since 2010 due to several factors including peace and security conditions, weak social safety nets and inability to create job opportunities. By shifting the poverty line from $1.25 to $2 and $2.75 per capita per day, the poverty rate in the region increases from 4 percent to 19 percent and 40 percent respectively. Such a spectacular increase in poverty rate is a distinct feature of the Arab region compared to other regions of the world. The achievements on poverty however do not correlate with other indicators such as the undernourishment rate, noting that the Arab region is the only one in the world to witness an increasing undernourished population. The number of undernourished people jumped from 30 million to over 50 million, between 1991 and 2011, mainly due to rapid population growth. It is to be noted that undernourishment is linked to the prevalence of hunger and lack of adequate levels of food security, which remain critical challenges in the region. In addition, the majority of the countries in the region suffer from double burden of malnutrition: the persistence of under-nutrition with a rise in overweight, obesity and diet-related chronic diseases with different scales according to the level of economic development. To address the challenges of poverty, hunger, and food security, the Arab countries have a number of policy options that include improving crop and water productivity, recycling and use of treated waste water, minimizing the high level of post-harvest losses, development of other high quality sources of proteins such as fisheries, considering the concept of virtual water in their national planning to foster cross-border cooperation, and last but not least, the inevitable regional cooperation based on the comparative advantage in agricultural and financial resources of different Arab countries.

C. WATER

The water situation in the region is critical. Scarcity of freshwater resources, high dependency on shared resources, inadequate levels of water management, low water tariff, irrational water consumption and production patterns, and deteriorated water quality, compounded with a changing climate, remain a major concern threatening the region's stability and food security.

Access to safe drinking water in the region reached 81 percent, where it has declined in some countries that are suffering from conflicts and instability such as, Iraq, Palestine, Sudan and Yemen. Improved sanitation coverage has risen to 75 percent, with increases in almost all countries. However, rural areas remain behind, especially in LDCs, where improved sanitation is only available to roughly one fifth of the population.

This critical situation is worthy of an urgent forward looking water reform process. To achieve water related SDGs, national water strategies should include making shifts in water allocation among different sectors based on the concept of

integrated water resources management (IWRM), introducing new pricing policies using progressive tariffs for drinking water, while demanding water pricing at actual cost in industry, and enforcing new regulations to address groundwater abstraction, and to protect public water ways from industrial wastes. These strategies should also foster water demand management, especially to improve the performance of the agriculture sector. Finally, there is an urgent need for changing the mindset, attitude and practices in the Arab societies through raising water awareness. In addition, Arab countries should recognize the importance of reaching the poor and expanding water services to all, particularly in rural areas.

D. ENERGY

Energy has been a major driver for development in the Arab region. Both oil exporters and importers are tied to the global oil market. The Arab region has recently become one of the major demand centers in the world. Growth of primary energy consumption has surpassed economic and population growth. With total reliance on fossil fuels, these trends would put the region in an unsustainable path. Except for the Arab LDCs, where about 50 million people have no access to modern energy services, most countries have achieved commendable high energy access rates. In addition to heavy energy subsidies, the region is characterized by low energy efficiency as well as slow pace to tap on the huge potential of solar and wind resources. The recent slump in oil prices has provided an opportunity for several countries to reform energy subsidies, including Egypt, Jordan, Saudi Arabia, the United Arab Emirates, Oman, Qatar, Bahrain and Kuwait.

To achieve the SDGs, energy efficiency and renewable energy are crucial factors to enhance energy security, lessen financial burdens of oil imports, and diversify energy mix. They can also offer reliable and sustainable solutions for access to modern energy services to rural and remote populations, contributing to poverty alleviation. While MASDAR in Abu Dhabi is a shining example of a government -driven transformative initiative in renewable energy, Dubai was host to the world's cheapest kilowatt-hour of PV electricity, through a private company applying a market-based investment model. On the westernmost side of the Arab region, Morocco is a notable example of a star performer when it comes to renewable energy investment with a daring 52 percent by 2030. In addition, regional cooperation and energy integration is a viable means to achieve the SDGs.

E. EMPLOYMENT AND THE GREEN ECONOMY

The working age population throughout the Arab region has experienced significant improvements in education and skills, owing to the substantial investments in human capital development. However, it is alarming that unemployment in Arab states generally remains too high, with an average of around 12 percent, reaching 30 percent among the youth, according to ILO 2014 figures[1]. It is estimated that unemployment soared further in 2015-16, due to conflicts and declining economic growth.

The youth group in the region (15 to 24 years old) is the largest demographic group, with rapidly growing rates. This group could provide good opportunities for development and could also constitute major challenges at the social, economic and political fronts, unless there are policies to create opportunities for education and work.

The education sector is essential in providing the training and knowledge necessary to build human capacity. Heightened commitment to education spending is necessary, with particular emphasis on green economy-related scientific, technical, engineering and social sciences disciplines. Whilst social security and income support schemes can help, the only lasting solutions are new jobs. Renewable energy and waste management provide two examples of offering "green jobs". Bringing electricity to the poor populations using decentralized renewable energy systems is one of the most tangible contributions that an inclusive green economy can offer, while also stimulating job creation and supporting social enterprise development.

F. SUSTAINABLE CONSUMPTION AND PRODUCTION

The rapid population growth, urbanization and rural migration, alongside inadequate subsidy policies, have resulted in an increased demand

on natural resources in the Arab region and have promoted unsustainable consumption and production patterns, causing environmental degradation. In order for the Arab countries to gradually shift to Sustainable Consumption and Production (SCP), every country, based on its respective socio-economic circumstances, needs to identify priority actions and enabling conditions necessary to facilitate that transition. These include: good governance, integrated policy planning, sound regulatory regime, use of market-based instruments, capacity development, access to finance and investments, research and development, public awareness, and green procurement. Furthermore, it is crucial to invest in education and social interactions, to change mind-sets, raise awareness of sustainable lifestyles, and facilitate change in consumers' behavior, especially amongst youth as agents of change, as users of social media, and as future entrepreneurs and decision-makers.

G. CLIMATE CHANGE

The Arab countries are among the most vulnerable to the potential impacts of climate change because of their existing vulnerabilities, notably water scarcity and recurrent drought. The Arab region's coastal zones – which are vulnerable to sea level rise – are of immense importance as most of the region's major cities and economic activities are in the coastal areas. Vastly fertile agricultural lands are located in low-lying, coastal areas such as the Nile Delta, where popular tourist activities depend on marine and coastal assets, like coral reefs and associated fauna. The predicted impacts of climate change place more stress on the limited fresh water resources. With around 85 percent of fresh water resources devoted to agriculture, food security in the Arab world has long been subject to environmental and socio-economic pressures.

Arab countries need to continue working on building national capacities to deal with different aspects of the climate change threats, adapt to the international climate regime, foster regional cooperation to adapt to the potential climate risks, and work closely with the international community to make use of the opportunities offered for climate finance, and climate friendly technology transfer.

H. REQUIREMENTS FOR THE IMPLEMENTATION OF THE SDGS IN ARAB COUNTRIES

A change in the mindset and culture of designing development strategies, policies, and plans, and their monitoring and assessment is essential if Arab countries are to achieve SDGs and address climate change concerns. Adopting an integrated approach to policy making is necessary to ensure policy coherence. This should be supported by a package of regulatory and market-based measures, in order to ensure that the proposed policies, plans, and programs are economically viable, socially equitable, and environmentally acceptable. Moreover, adopting a transparent, accountable, and participatory approach is a prerequisite for achieving this end. Building human capacity is one of the key requirements needed to make a qualitative shift towards sustainable development. It is recommended to reform the current institutional arrangements at the regional as well as national levels, such as establishing "High Councils for Sustainable Development". This would ensure integrated policy formulation, adequate cooperation and coordination among different government entities, and between the government and non-state stakeholders. The councils would also be responsible for overseeing and assessing the implementation of the proposed strategies, suggest remedial actions as may be required, and ensure adequate communication between the government, the general public, the private sector and civil society.

I. FINANCING THE SDGs

The financial system as currently designed is not geared to supporting sustainable development. However, ensuring the financial sustainability of policies, plans and programs is key to achieving the SDGs. To support sustainable development in the Arab countries, an additional US$ 57 billion would need to be specifically allocated annually for this purpose. There are many potential sources for international sustainable development finance and multilateral funds. However, apart from securing additional financial resources, focus should be on the mobilization and the redirection of existing local financial resources, both public and private, such as integration of

the informal sectors in the Arab economies, public-private partnerships projects, tax and subsidies reforms, philanthropic institutions, remittances, and private investments.

Arab country donors and their national and regional development institutions have over the past several decades played an important role in providing development and humanitarian assistance to Arab and other developing countries. A Coordination Group (CG) for development financing currently includes eight Arab national and regional development institutions, in addition to the Islamic Development Bank and the OPEC Fund for International Development. These institutions have amassed tremendous experience in development cooperation worldwide. Their combined contributions to financing development operations in over 140 countries across the globe amounted to about US$ 147 billion at the end of 2014, with a share of over 55 percent for Arab recipient countries.

Arab national and regional development institutions have been supporting the financing of the Millennium Development Goals (MDGs), and have declared their strong commitment to continue delivering assistance for financing the Sustainable Development Goals (SDGs) of the 2030 development agenda. Arab country recipients can attract more funding for their SDGs from the region's development financing institutions by orienting their development strategies towards the SDGs and setting their priorities accordingly in a sequenced manner based on well-prepared and feasible development operations and projects.

A pre-requisite to attract external assistance is to mobilize local resources through reforms in policies and revamping subsidies and tax collection practices, alongside promoting transparency and public participation.

Achieving the Sustainable Development Goals in Arab countries by 2030 cannot be done in isolation from the state of conflict in the region. Beyond acting with multiple local, regional, and international aid organizations today to provide safety and basic necessities to those affected, the AFED report recommends laying the foundation for integrating the SDG's implementation with the anticipated rebuilding efforts.

Section 2
BACKGROUND ON SUSTAINABLE DEVELOPMENT

Abdul-Karim Sadik

Sustainable development is a very old concept whose origin can be traced back to centuries ago, but it emerged and evolved within the United Nations (UN) system in the latter half of the 20th century through a series of summits, conferences, and commissions between 1972 and 2015. These initiatives were the precursors, which paved the way for the adoption of the post-2015 development agenda and the Sustainable Development Goals (SDGs) by the UN General Assembly in September 2015.

A. THE STOCKHOLM CONFERENCE: 1972

The UN Conference on the Human Environment, also known as the "Stockholm Conference", held in Stockholm in 1972 was the first major international event that created considerable momentum for the recognition of sustainability at the global level, and led to the establishment of the UN Environment Program (UNEP). Since then, UNEP has been pursuing its mission: "To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations" (UNEP).

The Conference adopted the "Stockholm Declaration on the Human Environment", which increased awareness of environmental issues worldwide through a set of forward-looking principles, such as principle 3: "The capacity of the earth to produce vital renewable resources must be maintained and, whenever practicable, restored or improved" (UN, 1972).

Despite its widespread popularity the Stockholm Declaration, with fragmented principles arrived at through compromise between different views and interests, did not strike a balance between the economic, social, and environmental issues of development, nor their interlinkages. As pointed out by Sohn, "the text [of the declaration] finally patched together from bits and pieces of various drafts does not show any real coherence of form or any uniform way of treating substance" (Sohn, 1973).

Following the Stockholm Declaration, development continued to be primarily equated with national economic growth in both developed and developing countries. This approach hampered the uptake of sustainable development and posed an imminent threat to the exhaustion of natural resources "whether in terms of supply, [e.g. oil reserves] or quality [e.g., air or water pollution]" (Drexhage and Murphy, 2010).

B. THE BRUNDTLAND REPORT: 1987

"Concerned about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development", the UN General Assembly established in 1983 the World Commission on Environment and Development (WCED), "to make available a report on environment and the global problematique to the year 2000 and beyond, including proposed strategies for sustainable development" (UN, 1987). Four years later, in 1987, the WCED published its report entitled "Our Common Future", also known as the "Brundtland Report" after the name of the Commission's chairman, the Norwegian Prime Minister, Gro Harlem Brundtland.

TABLE 1 **THE EIGHT MILLENNIUM DEVELOPMENT GOALS**

GOAL 1	Eradicate extreme poverty and hunger
GOAL 2	Achieve universal primary education
GOAL 3	Promote gender equality and empower women
GOAL 4	Reduce child mortality
GOAL 5	Improve maternal health
GOAL 6	Combat HIV/AIDS, malaria and other diseases
GOAL 7	Ensure environmental sustainability
GOAL 8	Develop a global partnership for development

Source: UN, 2015.

In its deliberations on new approaches to environment and development, the Commission recognized that "development cannot subsist upon a deteriorating environmental resources base; the environment cannot be protected when growth does not take into account the cost of environmental destruction. Fragmented institutions and policies cannot treat these problems separately. They are linked in a complex system of cause and effect" (WCED, 1987). Such a perspective, and others in the same vein expounded by the Commission underscored the synthesis of its most commonly adopted

definition of sustainable development, as an alternative approach to the narrow paradigm based on economic growth. Sustainable development is that which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

The "Brundtland Report" popularized the concept of sustainable development and created further momentum towards the institutionalization of sustainable development and the adoption of a plan of action for its implementation.

C. RIO SUMMIT (EARTH SUMMIT): 1992

The UN Conference on Environment and Development (UNCED), also known as the "Earth Summit" was held in Rio de Janeiro, in Brazil in June 1992. It was a landmark event, in terms of the number of participating stakeholders and the broad scope of its Agenda 21, incorporating a global plan of action for sustainable development.

The Rio Declaration, containing 27 principles, emphasized the implementation of national and global decisions to preserve the health of the planet and the integrity of its natural resources for the wellbeing of present and future generations. Principle 4 states: "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it" (Rio Declaration, 1992). In its Summary of the Special Session, held in June 1997 to review the implementation of Agenda 21, the UN General Assembly (UNGASS) acknowledged a number of positive results and some progress made in certain areas, but at the same time it expressed deep concern "that the overall trends for sustainable development are worse today than they were in 1992" (IISD, 1997). Furthermore, the UNGASS recognized the continued deterioration of the global environment as noted in the UNEP's Global Environment Outlook report. It pointed out that "increasing levels of pollution threaten to exceed the capacity of the global environment to absorb them, increasing the potential obstacles to economic and social development in developing countries" (IISD, 1997).

The Rio Summit succeeded in forging a political standpoint through the active engagement and participation of almost all world leaders in its deliberations. However, much remains to be done for the implementation of the goals set out under Agenda 21. This unfolding outcome of the Rio Summit prompted an unending quest for sustainable development through a set of specific goals and targets to be achieved over a time-bound period, an endeavor by the UN, which gave birth to the Millennium Development Goals (MDGs) in September 2000.

D. THE MILLENNIUM DEVELOPMENT GOALS: 2000

With a background of too little implementation of the goals in Agenda 21 of the Rio Summit, and persistent poverty and hunger at an unacceptable level, the international community launched the Millennium Summit in September 2000 to chart a vision to eradicate extreme poverty and address other various issues hampering the progress of sustainable development.

The Summit's vision was shaped by what has become the "Millennium Declaration", embracing eight Millennium Development Goals (MDGs), accompanied by a set of targets and indicators to monitor the progress of their implementation. The MDGs are described in Table 1.

It is to be recalled that the Rio +5 Summit in 1997 created the Commission on Sustainable Development (CSD) to review and monitor progress towards Agenda 21 every five years, including a review of the financial resources available for implementation. On the means of implementation, Agenda 21 noted that in addition to Official Development Assistance (ODA) as a main source of external funding, substantial new and additional financial resources were required for sustainable development and implementation of Agenda 21. However, two years following the adoption of the MDGs, the International Conference on Financing for Development, also known as "Monterrey Consensus" was held in Monterrey, Mexico in March 2002 to address the challenges of financing for development around the world, particularly in developing countries (UN, 2003). The conference noted with concern the dramatic

shortfalls in the currently estimated resources required to implement the internationally agreed development goals, including the MDGs. With the passage of time, growing concern about lack of progress on environmental issues, shortfalls in the resources required to implement the action plan under Agenda 21, and the unlikely prospects for the achievement of the MDGs in 2015, prompted the UN to call for a new conference to consider the evolving challenges.

E. THE RIO+20 CONFERENCE: 2012

Considering the progress made on agreed goals as enshrined in previous declarations, the United Nations Conference on Sustainable Development (Rio+20), was held in Rio de Janeiro in June 2012 on the eve of the 20th anniversary of the conference in Rio in 1992. In Rio +20, member states reached an agreement to launch a process to develop a set of sustainable development goals (SDGs) that build upon the MDGs, and that are limited in number, aspirational, easy to communicate, and address in a balanced way the three dimensions of sustainable development.

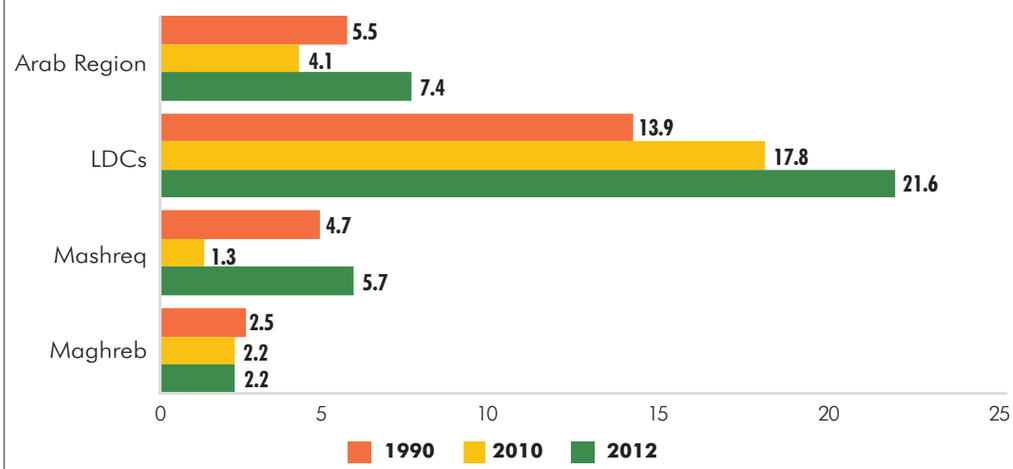
In its Annex, the outcome document of Rio+20 entitled "The future we want" contains 283 statements, including the vision of the conference. It reaffirmed the Rio principles and past action plans and developed a comprehensive framework for action and follow- up on thematic areas and cross-sectoral issues to secure renewed political commitment for sustainable development, to address the themes of a green economy in the context of sustainable development and poverty eradication, as well as expressing commitment to address the shortfalls in the implementation of action plans of the major summits on sustainable development (UN, 2012).

The conference recognized the approaching expiry target date in 2015 for the MDGs and their uneven progress in reducing poverty across regions, and the continued increase in the number of people living in poverty, especially in the least developed countries, and particularly in Africa. The need for a new development paradigm to fill the gaps and address the shortcomings identified in previous action plans, and build upon commitments already made, enhanced consensus in the conference for initiating a process for sustainable development goals, integrating the economic, social and environmental dimensions.

F. THE SUSTAINABLE DEVELOPMENT GOALS: 2015

The Rio+20 document called for the establishment of an Open Working Group (OWG) to develop a set of SDGs that should be "action–oriented, concise and easy to

FIGURE 1 **INCIDENCE OF EXTREME POVERTY BASED ON THE INTERNATIONAL POVERTY LINE OF US$1.25 A DAY IN THE ARAB REGION AND SUB-REGIONS**



Note: Poverty rates measured by the international poverty line of US$1.25 a day are insignificant for GCC countries.
Source: UN and LAS, 2013.

communicate, limited in number, aspirational, global in nature and universally applicable to all countries, while taking into account different national realities, capacities and levels of development and respecting national policies and priorities" (UN 2012).

An Open Working Group (OWG), with 30 members of the UN General Assembly was established in January 2013, and was mandated to decide on its methods of work, including modalities for the full representation of relevant stakeholders and expertise in order for the SDGs to be more inclusive and developed on the basis of a diversity of perspectives and experience.

Through a series of meetings between 2013 and 2014, and input from practically all walks of life, including representatives from developed and developing countries, international organizations, expert groups, the private sector, and NGOs, the OWG concluded its task and submitted its proposal on the SDGs, which were adopted by the UN Summit in September 2015 within the framework of the Post-2015 Development Agenda. The 17 SDGs, accompanied by 169 targets, are described in the Annex of the report. These goals are comprehensive, ambitious, and wider in scope than the MDGs, whose progress and outcome will help in shaping the road for the implementation of the SDGs as stipulated in "Transforming Our World – the 2030 Agenda for Sustainable Development". They, inter alia, reaffirm in goal 13 the "urgent action to combat climate change and its impacts", while "acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change" (Annex).

To combat the negative consequences of climate change and its most dangerous impact of rising global temperatures, the UN Climate Change Conference in Paris reached an agreement in December 2015 to limit global temperature rise to below 2 degrees Celsius by the end of the century.

This agreement is critically important for the achievement of the SDGs, because of its intertwined links with them. "A strong climate agreement backed by action on the ground will help us achieve the Sustainable Development Goals to end poverty, build stronger economies and safer, healthier, and more livable societies everywhere. There are 12 of the 17 Sustainable Development Goals that directly involve taking action on climate change in addition to climate change having its own goal" (UN, Sustainable Development Goals).

G. THE SDGs AND ARAB COUNTRIES

The SDGs are the successor to the MDGs, and will build on the progress made towards the latter. Not only this, but the level of progress related to the MDGs will shape the road to the SDGs, in terms of both the scope of the agenda to be implemented and the required resources for its implementation.

The fourth and last progress report[2] on the Millennium Development Goals (MDGs) for the Arab region[3] was released in 2013, two years prior to the 2015 MDGs deadline. It considered progress made on the MDGs between 1990 and 2012. It shows that: "The Arab region has made impressive progress towards some MDGs. But achievements are uneven. The region lags behind on some important targets, particularly those related to combating hunger. Political, social and economic transitions since 2010 have had significant impacts including halting or reversing MDG gains in some countries of the region.

Least developed countries (LDCs) remain behind on many fronts" (UN and LAS, 2013).

Extreme poverty in the Arab region declined considerably from 5.5 percent in 1990 to 4.1 percent in 2010, but this ratio re-bounced again to reach 7.4 percent in 2012, as shown in Figure 1.

Based on the estimated percentages in Figure 1, the number of people under extreme poverty and hunger increased from about 12 million in 1990 to about 27 million in 2012. While the Arab countries were making significant strides in reducing poverty, the trend of progress in some countries was reversed due to political transition and conflicts. For example, a decade (1997-2007) of progress in Syria was wiped out as a result of the conflict. Extreme poverty in Syria was estimated at 7.9 percent in 1997 and fell to 0.3 percent in 2007, but rose again to 7.2 percent in 2012-2013 (UN and LAS, 2013).

The Arab countries are committed to the SDGs against a backdrop of inadequate progress towards the MDGs, on-going conflicts, and political instability in some countries. "Development in the Arab region cannot be addressed separately from regional realities. With the continued Israeli occupation of Palestine, the region is suffering from the only remaining occupation in modern history. Conflicts and instability in the Arab region continue to take their toll on economic, social and political life" (UN and LAS, 2013).

Boosting the prospects of making steady progress towards the SDGs in the Arab countries will depend largely, inter alia, on adopting national development strategies with full recognition of the inseparable links between the social, economic, and environmental dimensions of sustainable development, including giving due consideration to unlocking the developmental benefits of cooperation and regional integration. Arab conflict countries, however, need to exert extraordinary concentrated efforts for peace building and restoration of political stability in order to establish a post-conflict environment conducive to the implementation of the Post-2015 Development Agenda and the achievement of the SDGs.

Section 3
IMPLEMENTATION OF THE SDGs IN A CHANGING CLIMATE

Ibrahim Abdel Gelil

Achieving sustainable development in the Arab region faces a series of challenges, including::

1. Political Turmoil, Wars and Conflicts

Since early 2011, the Arab region has been experiencing political turmoil that is expected to have far-reaching repercussions on sustainable development and on the transition to a green economy. In 2015, the Arab region ranked as the least peaceful part of the world, suffering under the Israeli occupation of Palestine and the dramatic worsening of conflicts in Iraq, Libya, the Syrian Arab Republic and Yemen. This was well acknowledged in the Arab Strategic Framework for Sustainable Development (ASFSD), which identifies peace, security, and political stability as a necessary enabler to achieve sustainable development.

2. Scarcity and Volatility of Natural Resources

Water, energy, and arable land are major challenges for development in the Arab region. Water scarcity and aridity, aggravated by potential impacts of climate change, and dependency of the Arab region on fossil fuels to meet its energy needs, characterized with low efficiency, constitute major challenges to a transition to green economy. This is compounded by the high vulnerability of both oil exporting and importing countries to the volatility of the oil market.

3. Food Security Threats

Arab countries are adversely affected by the volatility of the global food market as well as reliance on imported food products to cover between 50 and 100 percent of their food needs including wheat, which represents the main strategic crop in the region. The Gulf countries import around 100 percent of their staple food needs, but are less vulnerable than non-oil exporting countries in the region owing to surplus revenues generated by the oil sector. The most vulnerable countries to global food price volatility are those with relatively high poverty rates such as Iraq, Palestine, and Yemen. Food security is also threatened by land degradation, water scarcity, and inefficiency of water use in agriculture.

4. Climate Change and Extreme Weather Events

The Arab region is a prime example of the potential adverse impacts of climate change on a number of social, economic and environmental levels. Arab countries will be directly impacted by climate change: mainly sea levels rise will threaten the economic and natural assets of coastal areas, water scarcity and land degradation will be more acute, and biodiversity will be adversely impacted. The social impact will be severe, as many workers will lose their jobs in agriculture and fishing, alongside some oil industries as a result of a world shift toward renewable energy sources. However, jobs created by renewable energy are likely to offset those to be lost in the agriculture and oil industry. The economic impact on the oil producing countries will be more severe, as they mainly depend on revenues from oil and gas exports. If the world shifts fast to renewable sources of energy, those countries will suffer seriously (ASFSD, 2015). Lower oil prices in recent years, and the signal to the markets from the Climate Change Agreement at COP21 in Paris, gave a strong signal that prompted oil-exporting countries to launch deep changes to re-structure and diversify the economy.

5. Unsustainable Consumption and Production

Demographic changes, rising urbanization, changing lifestyles and subsidy policies, among others, contributed to the emergence of unsustainable consumption patterns in the Arab region, which is one of the most urbanized regions in the world. In 2010, the Arab population reached 352 million residents, 56 percent of which live in cities. By 2050, the population will reach 646 million residents, of which 68 percent will live in urban areas. Rapid population growth and migration from rural to urban areas are key factors that have contributed to the high demand on energy and other natural resources in the Arab region. Hydrocarbon exports revenues caused dramatic changes in lifestyles and consumption patterns in oil exporting countries, as witnessed in the GCC.

6. Population Growth

Population in the Arab region varies between

small, as in all the GCC except Saudi Arabia, to large as in the case of Egypt, accounting for almost 30 percent of the total Arab population. The population of the Arab countries grew by 2.2 percent between 2005 and 2012, which represents a major driving force for demand on limited natural resources.

7. Heavy Subsidies of Energy, Water, and Food

The region is characterized by heavy subsidies, based on two sets of rationale: in the oil exporting countries, energy subsidies are intended to allow citizens to share in their countries' natural-resource wealth as in the case of GCC countries. This is well reflected in the high rate of access to electricity. On the other hand, subsidies were promoted as a means to make essential energy services available to the poor in resource-scarce countries such as Egypt, Morocco, and Syria. In addition to promoting unsustainable consumption patterns, energy subsidies have been a major barrier to improving energy efficiency in the region as well as up-scaling renewable energy market. Recently, many Arab countries have taken bold steps to reform energy and water prices.

Since the Rio conference in 1992, the League of Arab States (LAS) has adopted a large number of regional strategies addressing different issues of sustainable development. These strategies, which were supported by a number of political declarations, reflected political commitments of the Arab countries to sustainable development. Yet, shifting from political statements to implementation on the ground has been slow. This situation was manifested in the 2011 political turmoil and unrest across the region. Although economic growth rates in the region were acceptable in the post-1990s reforms, and despite the significant gains in human development – particularly in education and health – as illustrated in the Arab MDG Report

(UN & LAS, 2013), the Arab uprising, coined as the "Arab Spring", has shown that economic development is not enough and that development and real progress are not only about wealth creation but also about sustainability, wealth distribution, social inclusions, strong institutions and effective political participation (ESCWA, 2014). It is acknowledged that the root causes of that uprising were mainly socio-economic and governance failures leading to exacerbated inequality, and the presence of educated but dissatisfied populations, especially educated middle class youth (ILO & UNDP, 2012).

In the meantime, some Arab countries have developed national strategies for sustainable development, ranging from specific goals such as green economy and poverty eradication, to a wider scope covering the whole spectrum (Box 1).

Egypt has already started to take tangible actions to institutionalize the implementation of the SDGs. These early actions include the recently launched Social Housing Program, which aims to improve the affordability of formal housing for low-income households and is expected to reach more than 3.6 million beneficiaries in the lowest income groups by replacing 150 thousand housing units in slum areas. Another example is the establishment of a national inter-ministerial committee to coordinate and follow up on the implementation of the SDGs, and the creation of a Sustainable Development Unit (SDU) within the National Statistical Agency (CAPMAS) to lead the monitoring and evaluation of the implementation of the SDGs and Egypt Vision 2030 (Egypt, 2016).

Thus, the starting point for the Arab countries to realize the SDGs is their level of achievements of the MDGs. There are notable differences in MDG achievement in the region. Some countries have made strong progress on most indicators, such as the GCC, while others have witnessed limited or no progress. The Least Developed Countries (LDCs), Iraq, and Palestine have been the weakest performers due to their special circumstances. One of the most remarkable achievements of the region has been its progress towards education and health targets, and extending access to improved sanitation. This means that the region is well placed to meet the challenges of sustainable development that lie ahead. On the negative side, the region is nearly 20 percent below the target on reducing undernourishment, and in providing access to drinking water. In addition, the divide between rich and poor Arab countries in health indicators is clearest.

ACHIEVING THE SDGs

This section draws heavily on previous AFED reports in order to discuss different options available to the Arab countries on the road to achieve the SDGs.

1. Poverty, Agriculture and Food Security

The Arab countries are generally facing enormous challenges to achieve their goals of eradicating hunger and malnutrition while managing and using their natural resources in an environmentally sustainable manner. Due to high population growth rates, averaging over 2.2 percent annually, a higher urbanization rate and dramatic changes in consumption patterns, demand for food has been under severe pressure. At the same time, the limited and fragile natural resource base and the low rate of agricultural productivity constitute major limitations to the supply of food. The AFED 2015 report shows that the Arab region has seen an increase in both the number of undernourished and prevalence of undernourishment. The majority of countries in the region suffer from double burden of malnutrition: the persistence of under-nutrition with a rise in overweight, obesity and diet-related chronic diseases with different scales according to the level of economic development.

Sustainable Development Goal 2 (SDG 2) aims to: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" (Annex).

a. State of Agriculture and Food Security

Agriculture is an important sector for many Arab countries, contributing for example to 33.8 percent of the GDP of Sudan in 2013 (Figure 2). The Arab region is seeking to achieve a higher level of food self-sufficiency, to enhance food security, contribute to employment (23 percent of the Arab work force are in agriculture), exports

BOX 1

EXAMPLES OF RECENT NATIONAL DEVELOPMENT STRATEGIES IN ARAB COUNTRIES

- Qatar's National Vision 2030 (2009) and National Development Strategy 2011-2016
- Saudi Arabia's Vision 2030 (2016)
- The United Arab Emirates' National Agenda Vision 21; National Green Growth Strategy; and Abu Dhabi Economic Vision 2030
- Jordan's National Resilience Plan 2014-16 (2014) and National Vision 2030 (in preparation)
- Lebanon's National Sustainable Development Strategy (in preparation)
- Bahrain's Vision 2030 (2007)
- Development Strategy of the New Tunisia (2012); National Sustainable Development Strategy 2016-2020 (2014); Guidance Note for the Strategic Development Plan 2016-2020 (in preparation)
- Iraq's National Development Plan 2010-2014 (2010)
- Egypt's Sustainable Development Strategy (2030)
- Algeria's National Strategy for the Fight Against Poverty (2005-2015) and Five-Year Plan (2010-2014)
- Sudan's Interim Poverty Reduction Strategy Paper (2012)
- Djibouti's Poverty Reduction Strategy Paper (2009)
- Morocco's National Sustainable Development Strategy (2015)

Source: ESCWA, 2015d

(60 percent of the non-oil exports proceeds), and industry.

Agriculture policies have targeted food security leading to expansion of cultivated lands, adoption of intensive production systems, investments in agricultural machinery and agro-chemicals. Though Arab agriculture productivity has improved during the last decades, there has been a continuous trade deficit in agriculture commodities of 4.5 percent, or nearly USD 70.4 billion in 2012 (LAS, AFESD, AMF, 2014). Food self-sufficiency varies widely in the Arab region. At country level, it ranged between 9.9 percent in Qatar and 86.8 percent in Sudan, as shown in Table 2.

Regionally, the Arab countries were nearly self-sufficient in fruits, vegetables and fish, but had a self-sufficiency ratio of 45.55 percent in cereals, 54.35 percent in oils and fats, and 36.85 percent in sugar in 2011 as indicated in Table 3.

Agriculture, characterized by low irrigation efficiency and crop productivity, remains the primary user of freshwater in the region, consuming nearly 84 percent of available resources (Figure 3). According to the Food and Agriculture Organization (FAO), countries are in a critical condition if they use more than 40 percent of their renewable water resources for agriculture and could be defined as water-stressed if they extract more than 20 percent of these resources. Accordingly, 19 Arab countries could be defined as water-stressed because their current abstraction rates from their renewable water resources for agriculture greatly overshoot the defined limits (FAO, 2015).

Although the Arab region has made impressive progress towards some MDGs, it lags behind on many important targets, particularly those related to combating hunger. It is far behind on meeting the target of halving undernourishment. The proportion of people below the minimum level of dietary energy consumption increased from 13.9 percent in 1991 to 15.3 percent in 2011 (Figure 4), as the number of undernourished people jumped from 30 million to above 50 million, mainly due to rapid population growth. Undernourishment increased from 6.4 percent in 1991 percent to 10.3 percent in 2011 in Mashreq countries, while it decreased elsewhere.

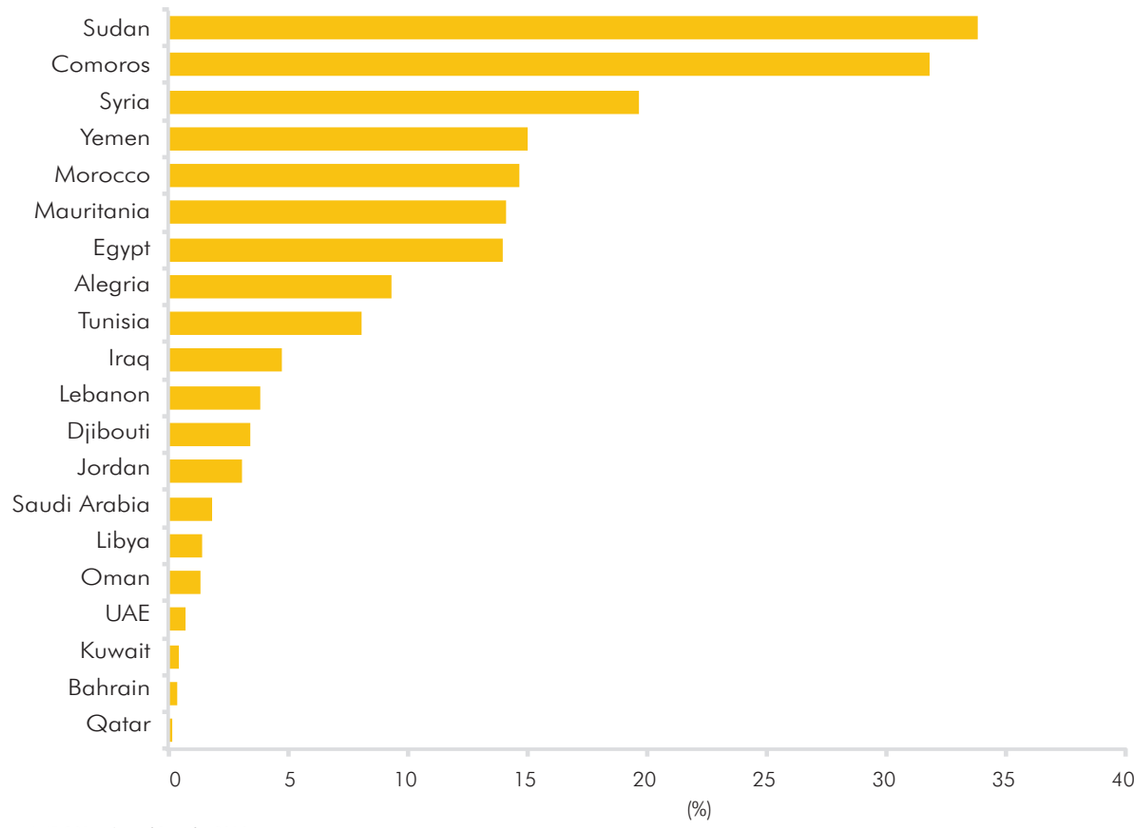
Undernourishment is particularly problematic in nine Arab countries; together, they account for 40.4 million of the region's undernourished people (Table 4). It is most widespread in the Comoros and Somalia, where more than 60 percent of people suffer from it, but there are

high rates of undernourished people of around 30 percent in Iraq, Palestine, Sudan and Yemen. It is to be noted that undernourishment is linked to the prevalence of hunger and inadequate food security levels, which remain critical challenges in the region.

Poverty is one of the major challenges in the region, which has been increasing since 2010 due to several factors including peace and security situations, weak social safety nets and inability to create job opportunities. The definition of poverty determines and greatly changes the rate of poverty in the Arab countries. By shifting the poverty line from $1.25 to $2 and $2.75, the poverty rates for the region increase from 4 percent to 19 percent and 40 percent, respectively. Such a spectacular increase in poverty rate is a distinct feature of the Arab region compared to other regions of the world (ESCWA, 2015b)[4].

By the $1.25 a day poverty line, the regional poverty incidence was only 4 percent in 2010. The achievements on poverty, however, do not correlate with other indicators such as the undernourishment rate, which can be seen as a manifestation of poverty. In fact, the Arab region is the only region in the world to witness an increasing undernourished population. Extreme poverty in the Arab region had decreased from 5.5 percent in 1990 to 4.1 percent in 2010, mainly due to progress in Egypt, Jordan and Syria. Most recent data and projections suggest that it may now surpass the 1990 level, with an extreme poverty incidence in 2012 estimated at 7.4 percent (Figure 5). Within the region, LDCs register the highest rate of extreme poverty: the rate increased from 13.9 percent in 1990 to 21.6 percent in 2012. The situation has certainly deteriorated more between 2012 and 2016, due to widespread wars and conflicts, which

FIGURE 2 **CONTRIBUTION OF AGRICULTURE TO GDP (2013)**



Source: AMF, 2014, data of Syria for 2010.

TABLE 2 **LEVEL OF FOOD SELF-SUFFICIENCY**

	Food Self-Sufficiency Ratio (%)			
Country/Sub-Region	**Total Food**		**Cereals**	
	2005	**2011**	**2005**	**2011**
Bahrain	12.96	12.81	0.00	0.00
Kuwait	28.38	21.68	3.88	2.56
Oman	45.21	34.52	1.17	9.22
Qatar	12.18	9.90	3.12	0.37
Saudi Arabia	44.52	34.49	26.75	11.15
United Arab Emirates	21.13	18.66	0.85	1.06
GCC	**37.40**	**29.45**	**20.25**	**9.12**
Yemen	51.53	31.45	22.59	10.92
GCC & Yemen	**39.74**	**29.74**	**20.54**	**9.46**
Iraq	75.34	82.84	55.51	95.42
Jordan	56.26	53.09	5.05	3.66
Lebanon	73.23	61.03	18.05	10.96
Syria	85.23	80.62	74.00	57.98
Palestine	81.55	72.26	19.69	10.00
Levant	**77.20**	**75.52**	**54.86**	**56.48**
Egypt	83.68	78.96	69.63	56.30
Sudan	91.15	86.84	75.74	70.59
Nile Valley	**85.51**	**80.80**	**70.74**	**59.09**
Algeria	53.48	70.04	29.88	31.96
Libya	44.95	43.09	10.79	7.06
Mauritania	68.49	70.03	19.17	36.04
Morocco	89.60	80.40	46.09	58.91
Tunisia	71.78	68.49	47.82	46.79
North Africa	**66.87**	**71.58**	**35.75**	**43.19**
Comoros	-	-	-	-
Djibouti	4.04	2.00	0.00	0.00
Somalia	69.17	74.26	32.89	33.00
African Horn	**64.80**	**63.52**	**28.46**	**26.70**
Arab Countries	**70.48**	**71.69**	**49.74**	**45.55**

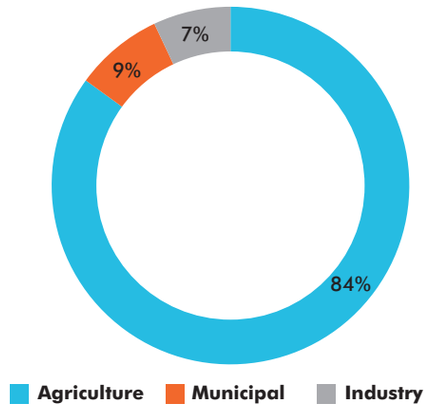
Source: AFED, 2014.

TABLE 3 SELF-SUFFICIENCY OF FOOD COMMODITY (%)

Food Commodity	2005	2011
Cereals	49.74	45.55
Sugar	38.47	36.85
Fats & Oils	28.12	54.35
Meat	80.80	76.19
Fruits & Vegetables	98.49	106.19
Fish	103.09	98.19
Other Commodities	77.78	82.50
Average	**70.48**	**71.69**

Source: AFED, 2014.

FIGURE 3 WATER USE BY SECTOR



Source: ESCWA, 2015c.

transformed vast productive areas into wasteland and generated millions of displaced and refugees.

b. The Road to Achieving SDG#2: Zero Hunger

To address these challenges, the Arab leaders adopted the Tunisia Declaration on Sustainable Agricultural Development and Food Security in 2004. Furthermore, the Arab Summit in Riyadh in 2007 adopted the Arab Strategy for Sustainable Agricultural Development for the period 2005-2025.

The AFED report on "Food Security in the Arab Region" (AFED, 2014), while recognizing the limitedness of land and scarcity of water, has highlighted a set of options which have considerable potential to enhance food self-sufficiency in Arab countries. These options underscore the adoption of appropriate agricultural policies and best practices in order to preserve the integrity of land and water resources and their biocapacity to regenerate their services and maintain their sustainability.

These options focus on, among others, boosting crop productivity, especially for cereals with an average yield of less than half that of the world average in most Arab countries. In this respect, the prospects for substantially enhancing productivity in irrigated and rain-fed areas lie in the application of best agricultural practices, including the optimization of the use of fertilizers, pesticides, improved seeds, innovative crop protection techniques, and effective extension services.

Improving water productivity through more 'crop per drop' is of vital importance under water scarcity. About 85 percent of water withdrawals in the Arab region is allocated for an inefficient irrigation, with almost 50 percent of irrigation water wasted due to major dependence on traditional irrigation applications. More modern, efficient, and water saving techniques are needed to boost irrigation efficiency.

Releasing pressure on fresh water resources and the environment through promoting the use of suitably treated wastewater for agricultural, industrial and household activities, and cutting down post-harvest losses through establishing efficient food value chains can play an important role in augmenting water resources and increasing food supplies.

Other options include the development of livestock and fisheries. Well integrated crop and livestock production systems at various levels provide opportunities to increase overall production, diversity, and economic sustainability of both sectors. Development of the fisheries sector through shared governance of fisheries stocks in Arab countries is not only crucial for the health of entire watersheds, but availability of fish for consumption can reduce dependence on red meat as a source of protein, underpinned by economic and health reasons.

Regional cooperation among Arab countries based on comparative advantage in agriculture and financial resources remains a key option for enhancing food security at the regional level.

2. Water

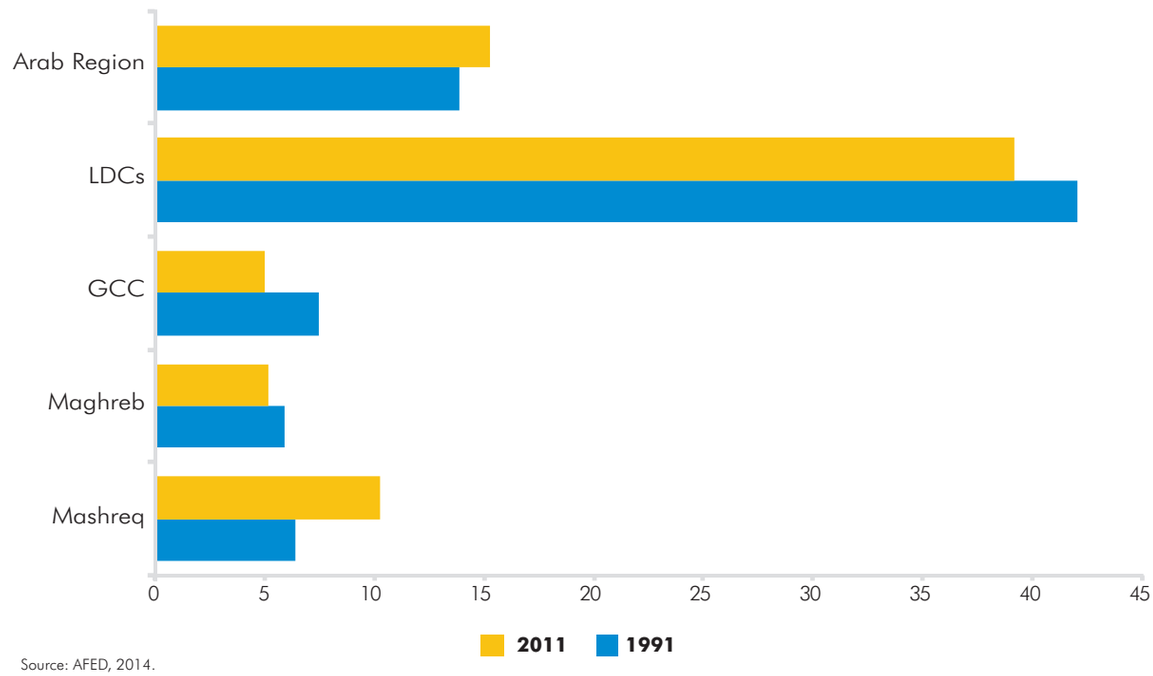
Water is vital for socio-economic development as well as for supporting the ecosystem. Clean water and sanitation are essential for basic human health, while access to adequate water resources is needed to support agriculture, industry and other economic activities. The Sustainable Development Goal on water (SDG 6) includes targets, which "ensure access to water and sanitation for all, "universal access to safe and affordable drinking water" and "adequate and equitable sanitation" (Annex). These new goals align with the United Nations' formal acknowledgement that clean drinking water and sanitation are encompassed in the realization of human rights. Water appears frequently across five of the 17 SDGs. Water is also connected to climate change, biodiversity, food security, energy security, health, urbanization, and sustainable consumption and production.

a. Water Situation in the Arab Region

The importance and value of water in the Arab countries is even more pronounced, as most of these countries are located in a region considered to be one of the world's most water-stressed. Rainfall scarcity and variability coupled with high evaporation rates have characterized this part of the world with a limited availability of renewable freshwater. Although the Arab region covers about 10 percent of the total area of the world and its population accounts for more than 5 percent of the world's population, it receives only 2.1 percent of the world's average annual precipitation and contains as little as 0.3 percent of the world's annual renewable water resources (AFED, 2015). Water shortages have compelled a number of Arab countries to rely heavily on desalination for the bulk of their municipal and industrial water needs as they have over 50 percent of the world's desalination capacity.

Furthermore, one of the major challenges facing the Arab region is the high overall dependency ratio on shared water resources. As more than 60 percent of surface water resources originate from

FIGURE 4 **PREVALENCE OF UNDERNOURISHMENT (%)**



Source: AFED, 2014.

TABLE 4 UNDERNOURISHED PEOPLE IN THE NINE MOST AFFECTED ARAB COUNTRIES (MILLIONS)

	1990	2000	2011	Difference (1990 and 2011)
Comoros	0.2	0.4	0.5	0.3
Djibouti	0.4	0.4	0.2	-0.2
Iraq	2.0	4.7	8.6	6.6
Mauritania	0.3	0.3	0.3	0
Morocco	1.8	1.8	1.8	0
Palestine	0.4	0.7	1.2	0.8
Somalia	4.8	5.2	6.3	1.5
Sudan	8.9	8.9	13.5	4.6
Yemen	3.6	5.6	8.0	4.4
Total	**22.4**	**28.0**	**40.4**	**18**
Prevalence rate	**25.0**	**24.2**	**28.3**	**3.3**

Source: Arab MDG Report, 2013.

outside the Arab region, this issue remains a major concern threatening the region's stability and food security, and complicates the management and planning of national water resources.

Climate change would worsen the water situation in the Arab region as it is particularly vulnerable given the already scarce water resources, high levels of aridity and the long coastal stretch threatened by sea level rise. Higher temperatures will also increase the incidence and impact of drought in the region, threatening water resources and productive land.

However, the increasing scarcity of renewable water resources is not the only characteristic of the region. Inadequate levels of water management, irrational water consumption and production patterns, and the region's deteriorated water quality have become equally distinguishing features over the past decades.

To meet the rising demand for food, many countries have prioritized food security and socio-economic development through policies to expand agricultural land and irrigated cultivation. Despite this, they have failed to consider water scarcity and the need for water use efficiency. While agricultural water consumption is being driven by national agricultural development and food policies, the sector consumption is underscored by a number of factors that include: 1) the predominance of traditional irrigation methods, mainly flood irrigation; 2) unrestricted surface water and groundwater abstraction; 3) absence of water tariff for water use in agriculture, and 4) cultivating high water consuming crops.

Surface irrigation is the most widely used method in the region and is practiced on 80 percent of the irrigated area. Some studies estimate that irrigation efficiencies in the Arab region are as low as 30-40 percent (AFED, 2010). Such waste leads to weak agricultural performance and, more dangerously, salinization and ground water level decline due to overuse. It becomes imperative for Arab countries to focus their efforts on improving water efficiency in agriculture, where the prospect to save water is notably higher than in other sectors.

Access to improved water sources in the Arab region reached 82 percent over the period 1990-2014 (Figure 6). Access has declined in some countries such as Iraq, Palestine, Sudan and Yemen. Challenges in those countries can generally be attributed to conflicts and instability, water shortages, inadequate water management, lack of financial resources and insufficient investment (ESCWA, 2015d).

During the same period, the region has performed better on access to sanitation than on access to water. Improved sanitation coverage has risen

from 64 percent in 1990 to 75 percent in 2010 (Figure 7), with increases in almost all countries. However, rural areas remain behind, especially in LDCs, where improved sanitation is only available to roughly one-fifth of the population. It is to be noted that conflicts and instability in countries such as Libya, Somalia, Iraq, the Syrian Arab Republic and Yemen may have caused substantial changes, as infrastructure may be destroyed and new investments delayed.

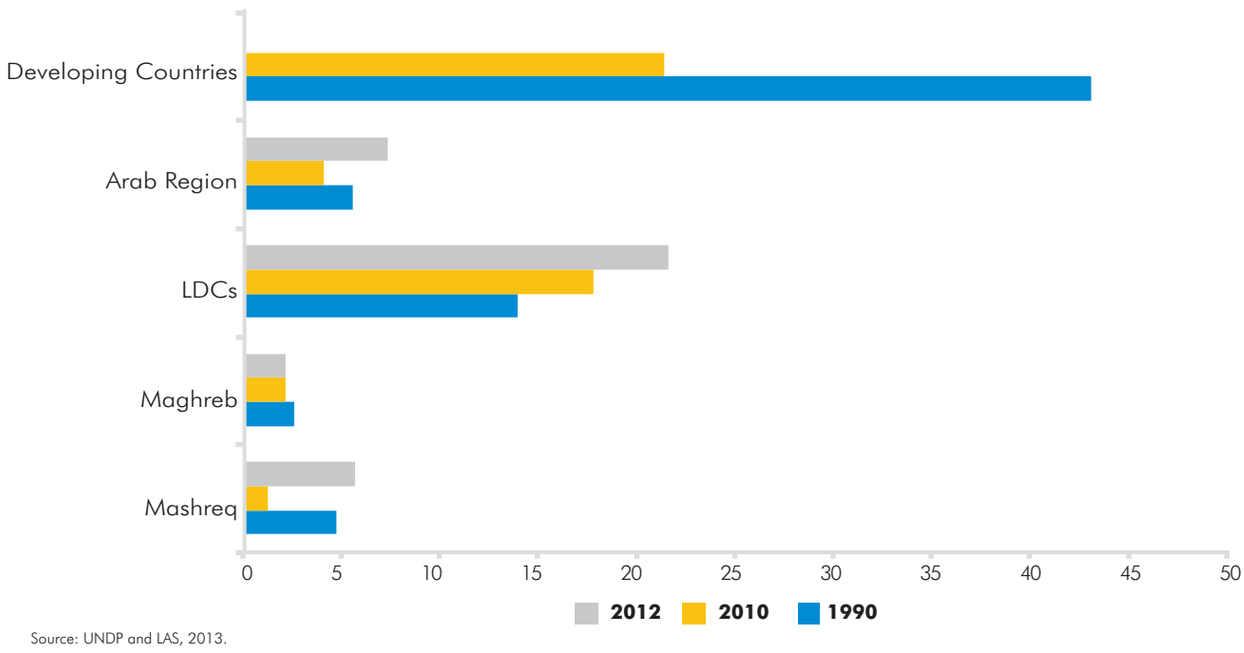
b. The Road to Achieving SDG#6: Water

Water policies in Arab countries have allowed for unrestricted use of scarce water resources. Low water tariffs have compromised the financial situation and physical conditions of urban and rural water supply networks. A key motive for water reform is the intensifying competition among domestic, agricultural, and industrial uses. These concerns are worthy of careful examination by Arab decision-makers, who should articulate appropriate policy frameworks to guide a forward looking water reform process. National strategic goals for the water sector should be articulated including making shifts in water allocation among sectors, introducing new pricing policies, drafting new rules and regulations to address groundwater abstraction, and designing plans to clean public water ways from industrial waste and pollution (AFED, 2010).

While the importance of the supply side cannot be overstated, the effectiveness of demand management is now universally accepted, particularly where water is scarce and unnecessarily wasted. Ensuring the efficient use of available supply may yield significant benefits and proves to be more cost-effective than traditional supply side measures. Demand management is often less capital-intensive and, therefore, more cost effective, but it is also better adapted to addressing 'emergency' situations. This requires effective policy guidelines to be developed to improve the performance of the agriculture sector as discussed earlier.

A more aggressive water allocation policy, based on the concept of integrated water resources management (IWRM), could be coordinated with land use policies to regulate unwanted growth in already crowded urban centers. Incentives in water allocation can be used to encourage local industries and housing projects to target poor

FIGURE 5 **INCIDENCE OF EXTREME POVERTY (%)**



Source: UNDP and LAS, 2013.

regions, where they can create jobs and develop economic opportunities.

Artificially low prices and heavy subsidies to water services are at the root of inefficiency, overuse, excessive pollution, and environmental degradation. For example, the average price charged for water in the region is about 35 percent of the cost of production, and in the case of desalinized water it is only 10 percent. While water pricing has been advocated for a long time, especially in irrigation, it is seldom enacted, except for some new developments in pricing announced by Saudi Arabia, the UAE, Bahrain and Kuwait.

While pricing is being looked at as the most effective method to foster conservation, a major governance issue is how to provide the public with adequate and inexpensive water from a human rights perspective. An answer lies in imposing progressive tariffs for drinking water and rationing water in agriculture, while demanding water pricing at actual cost in commercial activities and industry. A progressive water tariff ensures that basic human needs for fresh water are met at a low, subsidized price, while excessive use is priced at a tariff that reflects actual cost.

In the agricultural sector, which is the major water consumer, incentives are needed to improve irrigation efficiency. Managing irrigation water demand, including adopting water-saving technologies and crops, is essential. Economic and financial mechanisms include permits, rebates, tax incentives, targeted subsidies, price controls and water rights. Relevant research and development (R&D) must also be promoted and properly targeted.

There is an urgent need for changing the mindset, attitude and practices in the Arab societies through raising water awareness and the application of appropriate social change instruments and incentives, resulting in a widespread culture where water resources are not wasted, polluted or overused (AFED, 2015).

Water governance in Arab countries should be strengthened by building partnerships with beneficiaries and the private sector. Governments should encourage joint investment by the private sector and the community of beneficiaries in modern, well monitored and metered water delivery services. Increased decentralization and empowering water user associations should be promoted in order to devolve responsibilities to manage and operate local services to user communities.

In addition, Arab countries should recognize the important goal of reaching the poor and expanding water services to all communities, particularly in rural areas. Priority should be given to expanding water services to vulnerable communities and encouraging local initiatives in building and managing such services.

3. Energy

Energy is essential for sustainable development and poverty eradication. Nevertheless, it is estimated that about 50 million Arab people still have no access to modern energy services. Though energy was not explicitly considered in the Millennium Development Goals, the Sustainable Development Goals (SDGs) included a dedicated and stand-alone goal on energy. SDG 7 calls to "ensure access to affordable, reliable, sustainable and modern energy for all" (Annex). Energy continues to stand at the core of global efforts to induce a paradigm shift towards low-carbon energy systems, green economies, poverty eradication and sustainable development.

a. Energy Situation in the Arab Region

For decades, the energy sector has been playing a crucial role in the Arab region's development. According to the Arab Monetary Fund (LAS, AFESD, AMF, 2014), the oil and gas sector made up about 26.5 percent of the total Arab gross domestic product (GDP) in 2014. The sector represents more than 90 percent of the government revenues of Libya, Iraq, and Kuwait (Figure 8). In addition, the petroleum industry plays an important role in the social and economic development of Arab oil-importing countries, which benefit indirectly through worker remittances, trade, and funding of bilateral or joint Arab projects. In addition, the Arab oil and gas sector offers job opportunities in exploration, production, transportation, refining, and distribution.

Both net energy exporting countries and net

energy importing countries in the region share a high vulnerability to the volatility of the global hydrocarbon markets, as both groups have their economy strongly tied to the global energy markets, and can inversely benefit from or be hindered by its volatility.

Driven by population growth, economic development, and dramatic changes in consumption patterns, and supported by low energy prices, the Arab region has recently become one of the major energy demand centers in the world. Over the past decade (2003-2013), total primary energy consumption in the Arab countries has been steadily increasing at an average annual rate of 5 percent, with a slightly higher rate for the Gulf Cooperation Council (GCC) countries at 6.3 percent (ESCWA, 2015). With total reliance on fossil fuels, these energy consumption trends would put both Arab energy exporters and importers on an unsustainable path.

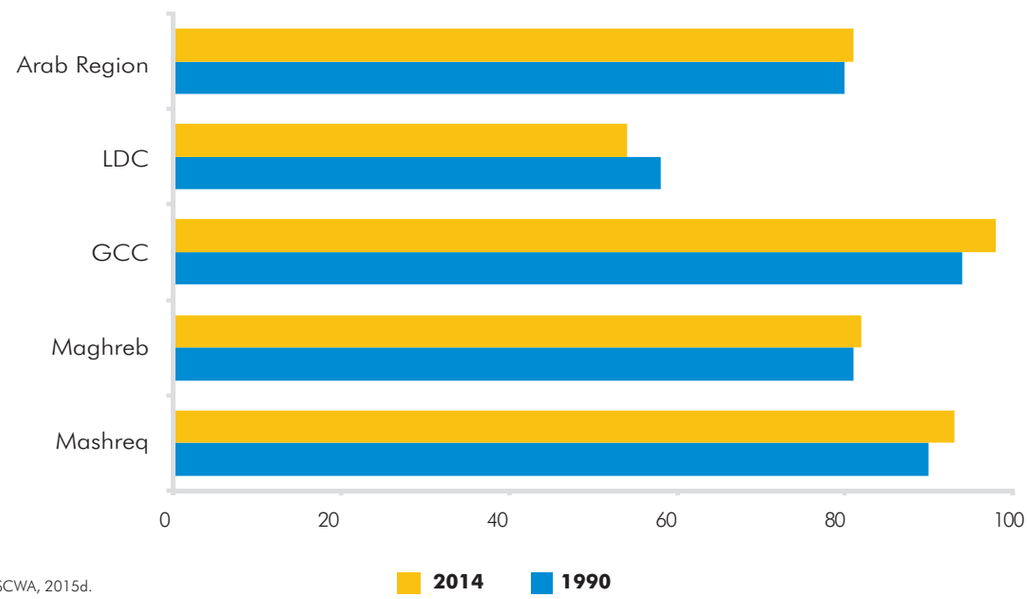
For energy exporters with economies relying on oil export revenues, more domestic consumption means reduction in surplus for exports and consequent reduction in exports revenues. This is a major development risk for those countries as it would erode their global market power, as evidenced by the current decline of oil prices that puts the GCC economies in a tight economic situation as never before. Recently, Saudi Arabia embarked on an applauded bold step to get ready for the post-oil era. Saudi Arabia's Vision 2030 aims to boost non-oil revenues six-fold to $266 billion by 2030. The Vision aims to give a much greater role to the private sector, boosting its share of the economy to 65 percent from 40 percent (Vision 2030 KSA, 2016).

On the other hand, for Arab net energy importers, current growth rates in energy consumption will increase their energy bill and their vulnerability to oil market volatility, leading to an insecure energy future.

Energy needs of the Arab countries are met dominantly by fossil fuels (Figure 9). This pattern has led to position some GCC states amongst the top carbon dioxide emitters. Energy is consumed in industrial activities (29.2 percent), transport (26.1 percent), residential and commercial sectors (42.1 percent), and agriculture (2.6 percent).

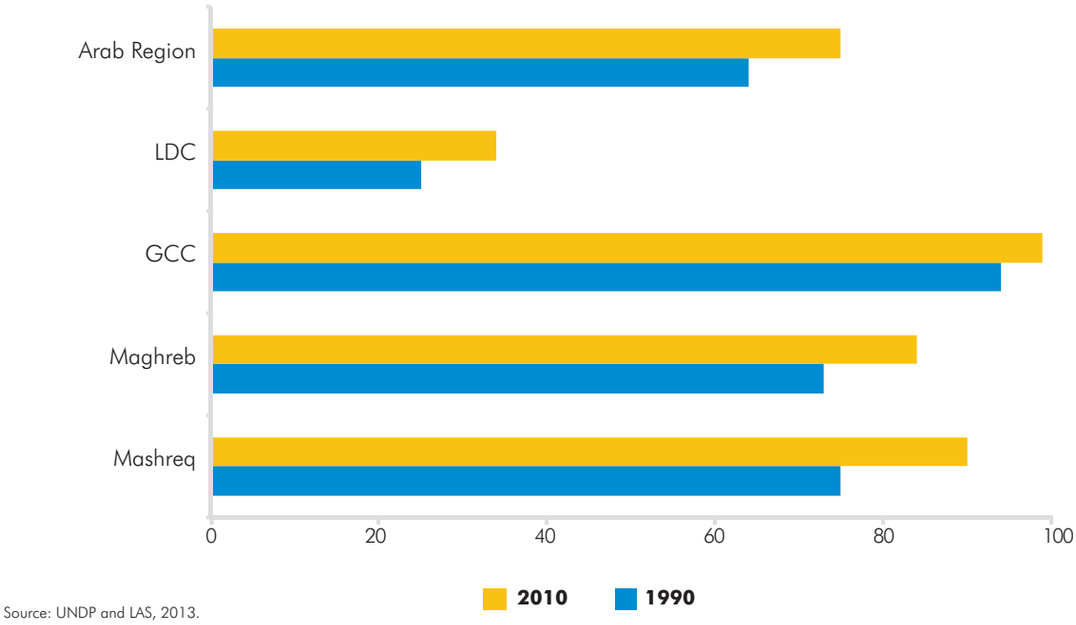
Driven by the high urbanization rate and low electricity prices in many Arab countries, the

FIGURE 6 **ACCESS TO IMPROVED WATER SOURCE (%)**



Source: ESCWA, 2015d.

FIGURE 7 ACCESS TO IMPROVED SANITATION (%)



Source: UNDP and LAS, 2013.

residential and commercial sectors are the major electricity consumers in the region. In 2013, they accounted for nearly 60 percent of the total electrical consumption. Buildings are major electricity consumers, for lighting, air-conditioning, and for other energy services.

b. Energy Access

Access to modern energy services is essential in meeting basic human needs, such as cooking, refrigeration, lighting and hygiene (domestic hot water and ventilation) as well as providing thermal comfort (heating and/or cooling), supporting education and public health and power economic activities. Access to electricity in the Arab region (86.2 percent) is slightly better than the world average (84.6 percent) (ESCWA, 2015d). According to the International Energy Agency (IEA) database for 2013 (IEA, 2015), most Arab countries have a national electrification rate of about 98 percent or higher, except for Mauritania, Sudan, Yemen, and Syria.

Table 5 indicates that about 44 million people in the Arab region have no access to the electrical grid. Access to electricity poses a major development challenge in the Arab least developed countries (Mauritania, Somalia, Sudan, Yemen, Djibouti, and Comoros). It is also noted that about 50 million people are relying on biomass for cooking, posing a significant health hazard.

c. Energy Efficiency

The region has been characterized by low energy efficiency in the supply and demand sides. Average Arab electric energy losses in generation, transmission and distribution (19.4 percent) are higher than the world average (8.3 percent) and much higher than the EU average (5.8 percent), presenting ample opportunity for achieving energy savings (AFED, 2015). In addition, current trends of energy use put the Arab economies among the least efficient ones in global comparisons. Growth in energy consumption has been faster than economic growth; average annual GDP growth was around 4 percent, while the increase in primary energy and electricity demand has been about 8 percent. The average primary energy intensity in the region in 2010 was estimated at about 0.2 tonnes of

oil equivalent (TOE)/$1000, which is slightly above the world average of 0.19 and about 31 percent higher than the European average of 0.14 TOE/$1000.

The high level of energy consumption in most Arab countries and the inefficiency of use can be attributed to, among others, the historically pervasive adoption of energy subsidies. In most countries of the region, fuel and electricity are subsidized at rates averaging in excess of 50 percent of the economic cost. The recent slump in oil prices has provided an opportunity for several countries to either cut or abolish fuel subsidies, including Egypt, Saudi Arabia, the United Arab Emirates, Oman, Qatar, Kuwait and Bahrain (Box 2). Arab countries urgently need to embrace the principles of green economy by decoupling growth from resource depletion. Any consideration of meeting the region's growing demand for energy must include a focus on energy efficiency.

d. Renewable Energy

There is a significant untapped potential for developing renewable energy (RE) applications in the Arab region, especially solar and wind. RE can play a crucial role in enhancing energy security for both Arab oil exporting and importing countries. For energy exporters, RE is a sustainable mean to economic diversification, saving depleted hydrocarbon resources, and alleviating high carbon footprint. For energy importers, utilization of indigenous RE resources would enhance energy security, lessen financial burdens of oil imports, and diversify the energy mix. RE can also offer reliable and sustainable solutions for access to modern energy services to rural and remote populations, contributing to poverty alleviation.

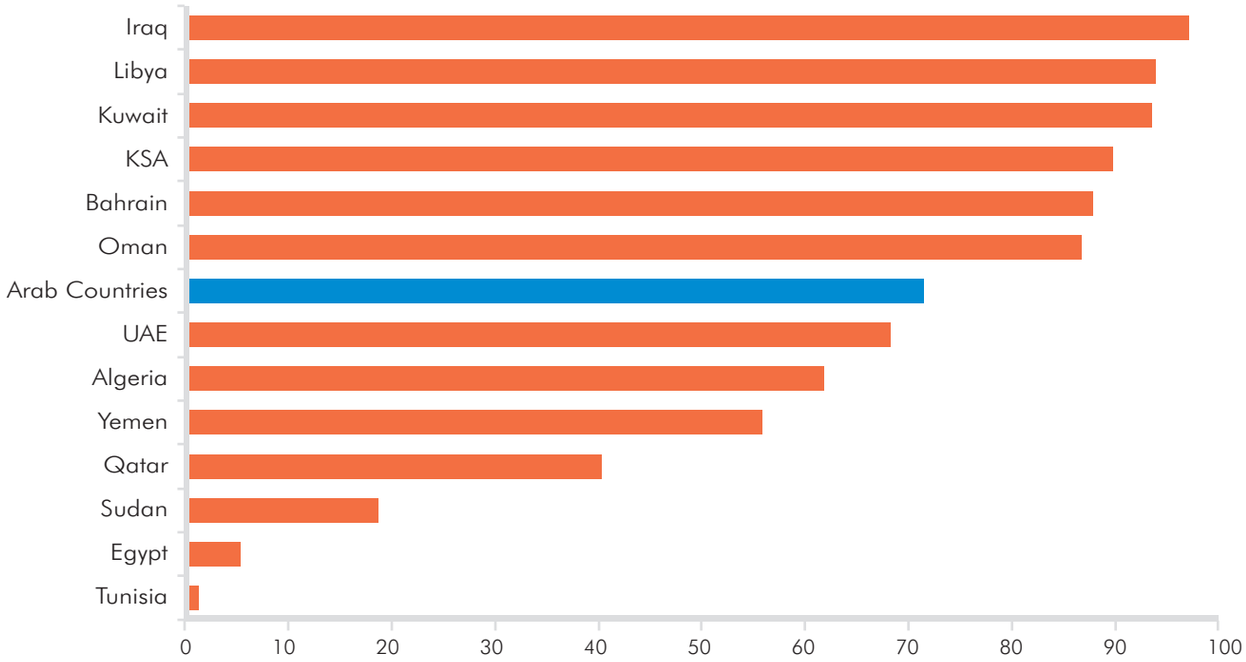
Current market trends of RE technologies characterized by declined costs and improved systems efficiency have made them economically competitive with fossil-based technologies. Though many Arab countries have made remarkable strides towards promoting RE, contribution of RE in the Arab energy mix remains marginal, at about 3.5 percent. Figure 10 shows that hydropower has the largest share of RE technologies in the region, followed by wind energy.

To utilize the untapped RE resources, most of the Arab countries have announced national renewable energy targets. Morocco's clean power target of 42 percent installed capacity by 2020, which was raised to 50 percent at COP21 in Paris, stands out as the most ambitious target in the Arab region. Algeria, Egypt, Qatar, Saudi Arabia, and Tunisia have also announced ambitious targets in excess of 20 percent of electricity generated at different time horizons. In addition, several countries have adopted different kinds of policy measures as exhibited in Table 6.

e. The Road to Achieving SDG #7: Energy

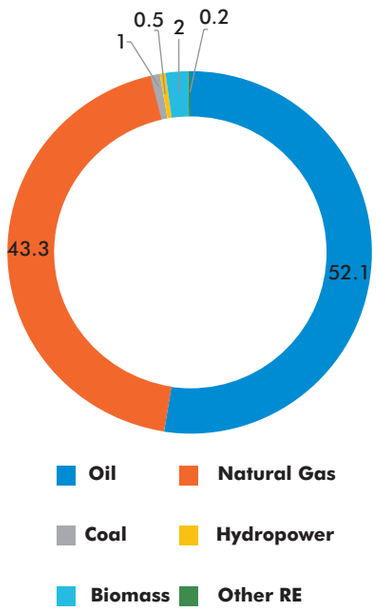
In order to "ensure access to affordable, reliable, sustainable and modern energy for all", the Arab region needs urgently to translate its many political declarations and adopted regional strategies to tangible programs. The League of Arab States has already adopted the Arab Regional Strategy for Sustainable Consumption and Production, the Arab Renewable Energy Framework, the Pan-Arab Renewable Energy Strategy 2030, and The Arab Guideline for Improving Electricity Efficiency and Rationalizing its Consumption at the End User. The Regional SCP strategy identified a set of strategic objectives, among which are improving energy efficiency, increasing the share of renewable energy in the fuel mix, and disseminating renewable energy technologies especially in rural and remote areas. The same strategy pinpointed a whole list of needed policy interventions to achieve those objectives. These include reforming existing energy tariffs so as to integrate environmental and social costs while maintaining energy subsidies for the poor; improving energy efficiency, particularly in energy intensive industries, transport, and electricity generation; developing wide use of renewable energy technologies; and supporting air quality management through better urban planning and land use. A number of options need to be expediently pursued. These include decoupling economic growth from resource utilization through efficient use of such resources, the de-carbonization of the energy mix to reduce the carbon footprint, and the eradication of energy poverty to achieve social equity and remove disparity in energy and economic indicators. These sustainable energy options have many other co-benefits that would contribute to achieving other SDGs. Those include:

FIGURE 8 OIL REVENUE AS PERCENT OF GOVERNMENT REVENUES (2013)



Source: LAS, AFESD, and AMF, 2014.

FIGURE 9 PRIMARY ENERGY CONSUMPTION IN THE ARAB REGION (2013)



Source: ESCWA, 2015.

- Improving public health and well-being by reducing pollution
- Improving economic competitiveness
- Creating an important number of green Jobs
- Alleviating poverty by reducing the energy bills
- Reducing the financial burden of energy subsidies on state budgets
- Meeting obligations of the Paris agreement.

In addition, regional cooperation and energy integration is a viable means to achieve SDGs. There are several regional institutions and programs already fostering regional cooperation. These include ESCWA, the League of Arab States, IRENA, the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE), AFED, and others. Additionally, the region has few cross-border gas networks that include the Arab Gas Pipeline connecting Egypt–Jordan–Lebanon-Syria, and the Dolphin pipeline

connecting Qatar to UAE and Oman. However, the inter-Arab natural gas trade is limited to about 13 percent of the total Arab gas exported. As the gas demand is increasing in the region for electricity generation, there is a need to overcome barriers that hinder the inter-Arab gas trade, in addition to more developed regional electricity interconnections in the region. These are the Maghreb interconnection (connecting Morocco, Algeria, Tunisia, Libya and Mauritania), the interconnection between Egypt, Iraq, Jordan, Lebanon, Libya, Palestine, Syria, and Turkey, and the GCC interconnection connecting the six GCC countries (ESCWA, 2015). It is hoped that Arab countries would work toward a regional energy integration strategy to achieve SDG 7.

4. Water-Energy-Food Nexus

Water security, energy security and food security are inextricably linked in the Arab region, perhaps more than in any other region in the world. Generally, the region is energy rich, water and land scarce, and food deficient. These inter-linkages are intensifying in the region as demand for resources increases with population growth, changing consumption patterns, and low efficiencies in both supply and demand in these three sectors would be further compounded by the impacts of climate change. Attempting to achieve the security in one of these sectors independently without addressing trade-offs with the other two sectors will endanger their sustainability and security.

This necessitates the crucial need to adopt the integrated nexus approach when addressing the management of those three vital resources. Utilizing the nexus approach has the potential to benefit all three sectors and reduce poverty

TABLE 5 **ELECTRIFICATION RATE IN THE ARAB COUNTRIES**

Country	Population without electricity (million)	National electrification rate (%)	Urban electrification rate (%)	Rural electrification Rate (%)
Algeria	0	99	100	97
Bahrain	0	100	100	100
Comoros	0	69	89	62
Djibouti	0	50	61	14
Egypt	0	99	100	97
Iraq	1	99	100	95
Jordan	0	100	100	100
Kuwait	0	100	100	100
Lebanon	0	100	100	99
Morocco	0	99	100	97
Mauritania	3	28	47	2
Oman	0	98	100	93
Somalia	9	15	33	4
Sudan	25	35	63	21
Syria	2	93	100	84
Saudi Arabia	0	99	100	98
Tunisia	0	100	100	100
Qatar	0	100	100	100
UAE	0	100	100	100
Yemen	13	46	72	32

Source: IEA, 2015.

through the improvement of livelihoods and job creation. Adopting a water-energy-food (WEF) nexus approach would provide an opportunity for minimizing security risks and maximizing opportunities and enhancing resource efficiency. It will also serve the Arab region in moving towards the achievement of the sustainable development goals (SDGs) and shifting to a low carbon climate resilient economy.

The current water-energy-food-climate policy landscape in the region is complex and fragmented; the sectors have been developed independently of each other. The current low pricing policies in the majority of Arab countries have been promoting unsustainable consumption and production patterns leading to more resources depletion. Low pricing and non-targeting subsidies have resulted in irrational domestic consumption behaviors and the absence of incentives to promote resource efficiency. Reforming pricing schemes would improve efficiency, enhance economic and climate resilience, lessen burdens on governments' budgets, and help achieve the SDGs.

However, integrated resources planning and management can only be delivered through appropriate and effective institutions. National and regional efforts to address climate change offer an unprecedented opportunity for the needed institutional reform in order to mainstream the nexus thinking in policy development and implementation. The UNFCCC and the Paris agreement along with existing institutions and different forms of multi-stakeholder bodies already formulated in many Arab countries, could serve as a catalyst to mainstream the nexus approach at all levels of policy development. This situation could be the driver for institutional reform and policy integration of the nexus. Enabling existing institutions could be more important and appropriate than establishing new institutions to achieve the targets for both the SDGs and the climate change mandate that

BOX 2

ENERGY SUBSIDY REFORMS IN SELECTED ARAB COUNTRIES

Country	Subsidies reforms
Egypt	In July 2014, Egypt introduced long-awaited energy subsidy cuts, seen as a positive signal by external investors. The most significant step was a 64 percent hike in diesel prices but similar increases affected electricity and many other refined products (LPG being one exception). These initial reductions were set out as the first step in a five-year program to eliminate entirely all energy subsidies, except LPG
Bahrain	The Bahraini government raised the price of super gasoline from USD 0.27/liter to USD 0.42/liter and confirmed the implementation of its four-year plan to increase the cost of diesel by 5 cents/liter each January to USD 0.32/liter in 2016. It also raises the price for Natural Gas from 2.25 $/mm Btu to 2.5 $/ mm Btu. The price will then rise 25 cents on April 1 each year until it reaches $4 per mm Btu by April 1, 2021. Bahrain also raises the price of electricity and water.
Oman	In January 2016, the Omani government increased the price of premium gasoline from USD 0.31/liter to USD 0.42/liter and prices for diesel were raised from USD 0.38/liter to USD 0.42/liter. The prices of these fuels will be set on the basis of a pricing formula that would take into account international levels as well as levels in neighboring UAE.
Qatar	In 2015, Qatar increased the price of gasoline (super 97 Octane) by 30 percent from USD 0.27/liter to USD 0.36/liter. In April 2016, it announced that petrol and diesel prices would be liberalized from May onwards, with frequent adjustments each month thereafter, based on 'global and regional factors, and costs linked to fuel production and distribution.
Saudi Arabia	In Saudi Arabia, premium gasoline prices were raised by 50 per cent to USD 0.24/liter, while diesel for commercial transport was raised to USD 0.12/liter. Electricity and water have also been raised.
UAE	In August 2015, the UAE fully liberalized its gasoline and diesel prices, introducing a pricing mechanism where domestic prices are set on a monthly basis and are directly linked to international prices.

resulted from the Paris Climate Summit in 2015.

It is to be noted that the nexus approach was recently well recognized in the Arab Strategic Framework for Sustainable Development (ASFSD). The ASFSD aims at addressing the key challenges faced by the Arab countries in achieving sustainable development during the period (2105-2025). The ASFSD is promoting the nexus approach to water-energy-food sustainability in the Arab region, and encouraging the transition towards a green economy in order to address the interdependencies between water, energy and food to make the nexus work for the poor.

Some Arab countries have already practiced the nexus approach; there are some good examples on the adoption of innovative solutions within the nexus. These include: the Sahara Wind Power Project in Morocco; renewable energy for wastewater treatment and reclaimed water use in agriculture in Jordan; solar desalination in Saudi Arabia; and an engineered wetland/aquaculture project in Egypt. These cases demonstrate the potential and benefits to be unlocked if technology and innovation are fully harnessed within the WEF nexus.

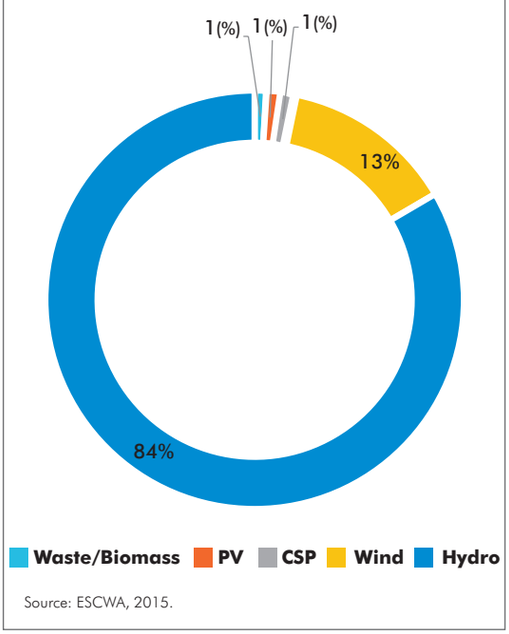
5. Employment and the Green Economy

The Rio+20 Summit in 2012 recognized for the first time that a green economy is an important tool for achieving sustainable development. The Summit's declaration stated that a Green Economy should contribute to poverty reduction, sustained growth, social cohesion, and employment without compromising the ability of ecosystems to function. The declaration emphasizes that – considering the differing situations and priorities in each country – there are different paths and models for sustainable development.

One of the key challenges for the Arab countries is to determine the entry points into a green economy that would ensure that strategies and programs are coherent with, and responsive to, national conditions and challenges, namely water scarcity, unemployment, food insecurity, droughts and desertification, climate change, and technology transfer.

Natural endowments offer a solid foundation for

FIGURE 10 **RE TECHNOLOGIES IN THE REGION (2015)**



Source: ESCWA, 2015.

the development of substantial green enterprises in the region. The frequency and duration of sunlight, coupled with the availability of extensive stretches of land, offer a promising environment for the development of substantial solar power generation. If potential synergies were realized between such power generation, and investment in research and development and manufacturing, there is a realistic prospect of the region emerging as a center for solar power industries.

The international community solidified its recognition of the inter-linkages between decent work and sustainable development. The outcome document of the UN Conference on Sustainable Development (Rio+20), entitled 'The Future We Want', addressed labor and employment issues significantly more than the 1992 Rio Earth Summit or the 2002 Johannesburg Summit. An entire section of the document was devoted to 'promoting full and productive employment, decent work for all, and social protections', highlighting the importance of these areas in achieving sustainable development.

According to the ILO, "jobs are green when they help reduce negative environmental impact ultimately leading to environmentally, economically and socially sustainable enterprises

TABLE 6 **RENEWABLE ENERGY POLICIES IN THE ARAB COUNTRIES**

Country	RE target	RE Strategy a/	FIT	Net metering	Biofuel obligations	Heat obligation	Capital Subsidy	Investment tax credits	Reduction in taxes	Public investment	Tendering	RE Fund a/
Algeria	√	√	√	√		√		√				√
Bahrain					√							
Djibouti		√			√							
Egypt	√	√	√	√		√		√	√		√	√
Iraq		√		√								
Jordan	√	√	√	√	√	√			√	√	√	√
Kuwait	√			√								
Lebanon	√	√	√	√	√	√					√	
Libya	√					√						
Morocco	√	√	√	√	√						√	
Oman												
Palestine	√	√		√		√					√	√
Qatar												
Saudi Arabia												
Sudan	√									√		
Syria	√			√		√					√	√
Tunisia	√	√	√		√	√		√			√	
UAE	√	√	√	√	√				√		√	
Yemen		√		√								
Total number of countries	12	11	7	11	7	8	0	3	3	2	8	5

Source: ESCWA, 2015.

and economies". The ILO goes on to elaborate that: "Green jobs are decent jobs that contribute to preserve or restore a sustainable environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency." (ILO, 2013a).

The global transition to a green economy could create huge opportunities of green jobs in the different economic sectors, such as employment in the fields of renewable energy generation, energy efficiency, ecosystem rehabilitation and protection, ecotourism and waste management. Such transition brings solutions to eradicate unemployment in the Arab region. According to the latest studies of the ILO many green sectors require a more sizeable workforce than the less environment-friendly alternatives (for instance, organic farming versus traditional farming).

The AFED report on Green Economy (AFED, 2011) argued that greening the economy secures a sustainable transition in a changing Arab world. The report estimated that over 30 million jobs could be created within a decade by employing efficiency measures, mainly in energy, water, agriculture, transportation, buildings and waste management. This entails the shift from the 'virtual economy' based on speculation in real

estate, money markets and sale of raw extractive resources, to a real economy rooted in sustainable production and services offering added-value, and more jobs.

There is a wide consensus that the increased working age population throughout the Arab region has also experienced significant improvements in education and skills, owing to the substantial investments throughout the Arab world in human capital development. However, it must remain a source of concern – if not alarm – that youth unemployment in Arab states generally remains too high (ILO, 2014b).

Employment is one of the most important development challenges in the Arab region. The unemployment average is around 13 percent and the region needs to create some 50 million jobs by 2020, mostly from the youth, in order to reach full employment (Figure 11). High unemployment, lack of decent work and low wages are today's hallmarks of the Arab labor market. As the majority of investment is directed towards the capital-intensive oil sector, low value-added services, and construction and real estate, demand for skilled employment is low, even as the supply of skilled labor is relatively high. Further, unemployment trends have worsened in recent years as rural income has fallen in face of low agricultural productivity, drought, land degradation and depletion of groundwater resources. These trends have fueled rural to urban migration and the expansion of informal settlements and social unrest.

The youth group in the region (between the ages 15 and 24 years old) is the largest demographic group, with rapidly growing rates. This growth could provide good opportunities for development and could also constitute major challenges at the social, economic and political fronts unless there are policies that help to make the best use of the youth and create opportunities for education and work.

ESCWA, the League of Arab States (LAS) and UNEP (2011) noted that the high number of youth in the populations of the ESCWA countries "represents a new opportunity for development provided that youth receive enlightened education and are provided with sustainable production capacities." Despite the improved educational outcomes for GCC youth, and despite the increasing focus on technical skills relevant to green economy occupations, matching of labor supply and labor demand will continue to be imperfect. Uncertainty remains about whether the skills and education possessed by workers and job seekers fit the types of skills required.

a. The Road to Achieve SDG#8: Work & Growth

Increased labor demand is the key to breaking the cycle of low productivity and low-skill economies in the Arab region, and that requires public action (ILO and UNDP 2012, 2013). The elements necessary are macroeconomic policy coherence, promotion of social dialogue, expanded social protection, improved migration management, active labor market programs, more focused education and training, and better data for policy-making. Industrial policy and investment policy should more consciously emphasize measures to advance decent work; to improve workforce skills and to generate higher value added processes. Incorporation of international labor standards into planning will protect individual workers and yield productivity improvements. National plans for environment, education and economic development should be closely coordinated. Good policy requires improved data and its more systematic use for planning. That in turn suggests the value of strong and representative workers' organizations and a solid culture of industrial relations. Governments should take steps to develop legal, regulatory and practical means for embodying international standards of freedom of association for workers and collective bargaining.

The education sector is essential in providing the training and knowledge necessary (ESCWA, 2013). Heightened commitment to education spending is necessary, with particular emphasis on green economy-related scientific, technical, engineering and social science disciplines.

Whilst social security and income support schemes can help, the only lasting solutions are new jobs. The good news is that new job opportunities in an inclusive green economy are significant, but they need to be identified early, and the education and skills training needed to

fill them ought to be an early priority for the region. Renewable energy and waste management provide two such examples. Bringing electricity to the poor populations through the use of mini grid renewable energy systems is one of the most tangible contributions that an inclusive green economy can make to vulnerable communities, while also stimulating job creation and supporting social enterprise development.

6. Sustainable Consumption and Production

Sustainable consumption and production (SCP) is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. Its implementation helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty. It involves engaging consumers through awareness-raising and education on sustainable consumption and lifestyles, providing consumers with adequate information through standards and labels and engaging in sustainable public procurement, among others.

One of the SCP's main goals is to 'decouple' economic growth and environmental degradation by improving resource efficiency in the production, distribution and use of products, and aiming to keep the energy, material and pollution intensity of all production and consumption activities within the carrying capacities of the natural ecosystems. Further, SCP promotes "lifecycle thinking" to enhance sustainable management of resources.

SCP is an integral part of the 2030 Agenda for Sustainable Development. It is identified as a stand-alone Sustainable Development Goal (SDG 12) and as a central component of many of the 17 goals. SDG 12 calls for implementing the 10-year framework of programs on sustainable consumption and production (Annex).

a. Regional Contexts: Sustainable Consumption and Production

The rapid population growth, urbanization and rural migration, and subsidy policies have resulted in an increased demand on natural resources in the Arab region and have promoted unsustainable consumption and production patterns causing environmental degradation. Due to heavy reliance on fossil fuels, intensive subsidies of oil, gas, and electricity, and irrational consumption behaviors, the energy sector in Arab countries is unsustainable on economic, environmental, and social fronts. Similarly in the water sector, consumption rates increased as a result of rapid population growth and escalating socio-economic development. Water consumption rates are increasing in the GCC countries despite water scarcity and reliance on desalination, due to inefficient water governance system.

During its 2009 meeting, the Council of Arab Ministers Responsible for Environment (CAMRE) endorsed the Arab Regional Strategy for Sustainable Consumption and Production. This strategy has been developed with the support of the Marrakech Process on SCP and responds to the call of the first Arab Roundtable for Sustainable Consumption and Production. The strategy aims to promote the concept of Sustainable Consumption and Production in the Arab region by encouraging the utilization of products and services that ensure environmental protection and conserve water and energy as well as other natural resources, while contributing to poverty eradication and sustainable lifestyles. The strategy's main priority areas include:

- Energy for sustainable development
- Water resources management
- Waste management
- Rural development and eradication of poverty
- Education and sustainable lifestyles
- Tourism

The strategy emphasizes the importance of approaching SCP from a multi-stakeholder perspective including; governments, business and industry, media, Non-Governmental Organizations (NGOs) and civil society, individuals and regional and international intergovernmental organizations.

Consequently, the Arab region moved forward and became the first region to develop and adopt a Roadmap for Implementation of the 10YFP on SCP at the regional level in June 2013. However, as is the case in most Arab regional strategies, both the roadmap and the SCP regional strategy are far from being implemented at national levels. Development and implementation of SCP strategies in most Arab countries are still lagging (AFED, 2015). Some elements of SCP policies are integrated in national development plans or strategies aimed at achieving sustainable development (Box 1). Many Arab countries, according to their respective circumstances, have adopted policies that focus on energy, water, food, waste, and poverty eradication. Civil society organizations (CSOs), such as AFED, have also played a key role in making sure that SCP remains on both government and business agendas. AFED's flagship reports on energy, water, food security, climate change, green economy and sustainable consumption shed light on SCP priorities of the Arab region and contribute to achieving the objectives of Arab regional strategy on SCP. Other NGOs have also been contributing to these goals.

It is remarkable that although the Arab SCP strategy identified energy, water, and food as regional priorities, the nexus concept was not matured enough at that time of the year 2009. The strategy addresses the efficiency of those three resources independently, a situation that was rectified afterwards in the ASFSD in 2013. AFED has repeatedly called for the nexus approach, starting with its annual report on water in 2010.

b. The Road to Achieving SDG#12: Consumption & Production

In order for the Arab countries to gradually shift to SCP, every country, based on its respective socio-economic circumstances, needs to identify priority actions and enabling conditions necessary to facilitate that transition. As identified in the AFED 2015 Annual Report, these enabling conditions include: good governance, integrated policy planning, sound regulatory regime, use of market-based instruments, capacity development, access to finance and investments, research and development, public awareness, and green procurement (AFED, 2015). Furthermore, it is crucial to invest in education and social interactions, to change mind-sets and social practices and incorporate the concept of environmental sustainability in daily life, raise awareness of sustainable lifestyles, and facilitate change in consumer behaviors, especially amongst youth as agents of change, as users of social media, and as future entrepreneurs and decision-makers. The Arab SCP and its road map have identified a whole list of policy options for the Arab countries to pursue. The real challenge is to transform these options from paper to tangible actions on the ground. Political will and commitment are crucial to embed these policy options in national development strategies.

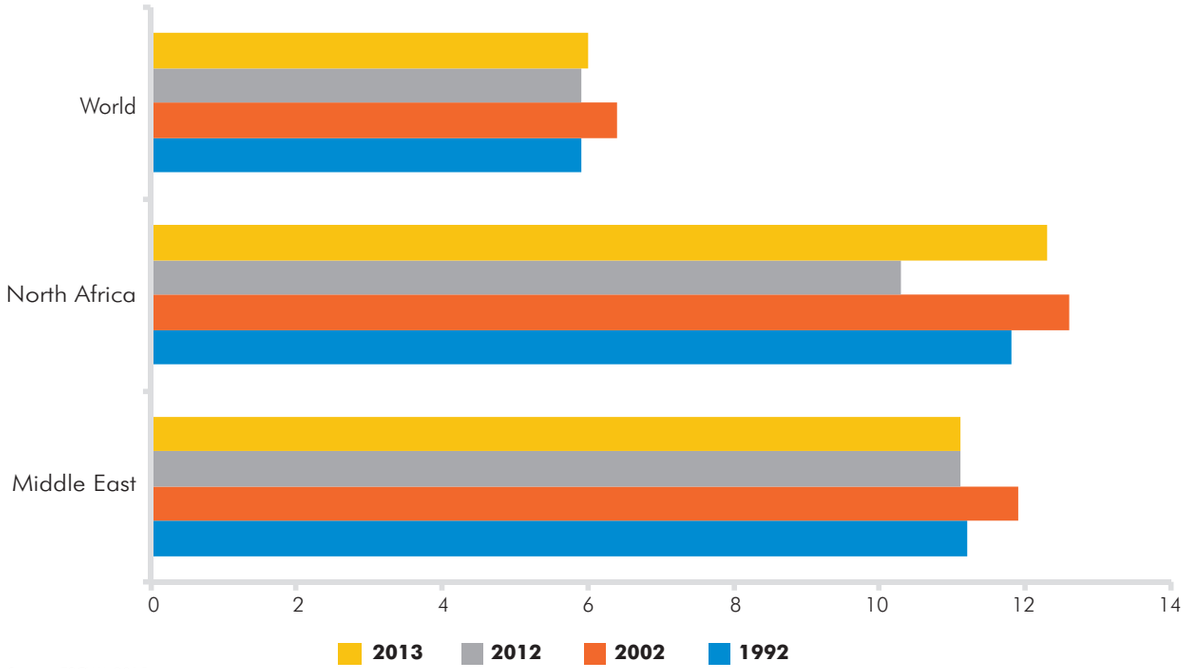
7. Climate Change

Climate change is one of the major challenges facing mankind for decades to come. It affects all aspects of the development agenda, from poverty eradication to health care, and from economic growth to disaster risk reduction. The poorest and most vulnerable people globally are likely to be most affected, unless significant efforts are made to create models of development that can mitigate and adapt to the impacts of climate change. There are therefore strong links between climate change and the SDGs. SDGs will help in promoting and implementing the Paris climate agreement and equally the agreement will help to achieve the SDGs.

The long-term goal of the Paris Agreement is to limit global warming to 1.5°C above the pre-industrial average and to achieve net zero GHG emissions by 2100. The agreement recognizes that all countries must contribute to the solution, while still accounting for the fact that countries are at different stages of development with different capacities to act and to provide climate finance. It provides a clear policy framework and the legal basis for action on climate change, promotes international cooperation, and mobilizes additional finance and resources for mitigation and adaptation activities that support low carbon, climate compatible development. These resources can in turn have substantial impacts on the development pathways of many countries and therefore achieving the SDGs.

Strengthening the resilience and adaptive capacity of more vulnerable regions, such as the Arab region, must go hand in hand with efforts to raise

FIGURE 11 **UNEMPLOYMENT RATE (%)**



Source: ESCWA,2015c.

awareness and integrate climate friendly measures into national policies and strategies. It is still possible, with the political will and a wide array of technological measures, to limit the impacts of climate change on the Arab countries, and to adapt to the remaining consequences.

Thus, it is impossible for sustainable development to take place without tackling climate change. Though addressing climate change is only one of 17 global sustainable development goals (SDGs) that make up the 2030 Agenda for Sustainable Development, all of its 17 goals and 169 targets will ultimately fail if the global community does not adequately address the realities of a rapidly warming world. Stronger connection and coherence is vital for success. That success hinges on the ability of the developed countries to realize the long-standing target of devoting 0.7 percent of the Gross National Income (GNI) as Official Development Assistance (ODA) to developing countries and mobilize additional US$100 billion annually by 2020 for climate change.

a. Arab Countries and Climate Change

The Arab countries are among the most vulnerable to the potential impacts of climate change because of their existing vulnerabilities, notably water scarcity and recurrent drought. In the Arab region, the vulnerabilities to the potential impacts of climate change are high, current capacities and actions in some countries are inadequate, and effective strategies for mitigating and adapting to climate change have been developing. The Arab region's coastal zones, vulnerable to sea level rise, are of immense importance. The total length of the coastal zone in the Arab region is 34,000 km, of which 18,000 km is inhabited. Most of the region's major cities and economic activities are in the coastal zones. Vastly fertile agricultural lands are located in low-lying, coastal areas such as the Nile Delta, and popular tourist activities depend on marine and coastal assets, like coral reefs and associated fauna. The predicted impacts of climate change place more stress on the limited fresh water resources. Both the quantity and quality of fresh water resources are in danger. With around 85 percent of fresh water withdrawals devoted to agriculture, food security in the Arab world has long been subject to environmental and socio-economic pressures. The dominant arid conditions, limited water resources, erratic cropping patterns, intensive grazing, population

growth, and low knowledge and technology levels all affect food production systems in the region. The dominant agricultural system in Arab countries is rain-fed agriculture; as such, annual agricultural productivity and food security are highly correlated to the annual variability of precipitation (AFED, 2009). In a country such as Egypt crop yields could drop by up to 30 percent by 2050 if temperatures rise by 1.5 to 2°C. All capital cities in the region could face many more exceptionally hot days each year compared to the rest of the world (World Bank, 2014).

Further, the health impacts of climate change cannot be understated; climate change plays an important role in the spread of vector-borne infectious diseases, such as malaria. It also affects the seasonal concentrations of some allergens in the atmosphere, causing allergic reactions and pulmonary diseases, and worsens the public health impact of heat waves especially in Arab countries with hot summer climates. Heat waves are projected to become more intense, frequent, and prolonged due to climate change, causing increased mortality.

In addition, climate change can have a direct impact on people's lives and livelihoods. A clear example is the migration induced by climate change in the Syrian Arab Republic between 2006 and 2011, when nearly 60 percent of the population suffered the worst drought and crop failure in the country's modern history. By 2011, almost one million Syrian had become exposed to food insecurity, and in 2010, an estimated 200,000 people migrated from their farms to urban areas (ESCWA, 2015d).

Contributions of the region to global GHGs emissions are minimal. However, per capita carbon emissions (5.3 metric tons) are higher than the world average (4.9 metric tons) (ESCWA, 2015d). The involvement of the Arab countries in the climate change negotiations started from the beginning of the process and evolved in parallel with the evolution of the international climate regime. All Arab countries ratified the UNFCCC and the majority had ratified the Kyoto protocol. On the road to Paris, all Arab countries, except Syria and Libya, had submitted their "Intended Nationally Determined Contributions" (INDCs). They identified the actions a country intends to take under the Paris agreement and once the Agreement goes into force, the switch from INDC to NDC would occur with the dropping of "intended", and switching from pledges to commitments. New guidance under the Agreement on NDC submissions will have to harmonize how Parties specify their NDCs (e.g., baselines and metrics). Arab countries need to continue working on building national capacities to deal with different aspects of the climate change threats and the evolution of the international climate regime. They need to foster regional cooperation to adapt to the potential climate risks and work closely with the international community to make use of the opportunities offered for climate finance and climate friendly technology transfer.

b. The Paris Climate Agreement and the SDGs

The Paris climate agreement highlighted the need to coordinate the global efforts to combat climate change while achieving sustainable development. There are many connections between the UNFCCC and the SDGs. The ultimate objective of the UNFCCC and any related legal instruments that the Conference of the Parties adopts, such as the Paris agreement, is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. Article 4, paragraph 1(c) of the UNFCCC requires the parties to cooperate to reduce greenhouse gas emissions in the energy, transport, industry, agriculture, and forestry sectors. These correspond to SDG 7 (energy), SDG 11 (cities), SDG 9 (industrialization), SDG 2 (agriculture), and SDG 15 (forests). Further, Article 4, paragraph 1(d) of the UNFCCC requires the parties to cooperate with respect to biomass, forests and oceans, and other terrestrial, coastal and marine ecosystems. These correspond to SDG 14 (oceans, seas and marine resources) and SDG 15 (terrestrial ecosystems, forests, desertification, land degradation and biodiversity). The Arab region needs to recognize those interrelationships between the SDGs and the Paris agreement, while planning for sustainable development.

Section 4
REQUIREMENTS FOR THE IMPLEMENTATION OF THE SDGs IN ARAB COUNTRIES

Hussein Abaza

Some necessary requirements are needed for achieving the SDGs in Arab countries, covering strategies, policies, planning and governance. Those include:

A. LONG-TERM STRATEGIES AND MEDIUM-TERM PLANS

Developing a long-term strategy with a clear vision, action plan, and indicators are essential requirements for achieving sustainable development. Water, energy and food continue to be among the main challenges facing Arab countries. This is further aggravated by rapid population growth, increased rates of poverty and the widening gap between the rich and poor, combined by increased levels of unemployment, illiteracy and poor health services, particularly for low income groups, the poor and under privileged communities.

SDG1 "End poverty in all forms everywhere"

SDG2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture"

SDG6 "Ensure availability and sustainable management of water and sanitation for all"

SDG7 "Ensure access to affordable, reliable sustainable and modern energy for all"

The outbreak of revolutions in several Arab countries since 2011 was mainly attributed to deteriorating social and economic conditions in these countries. Social injustice, reflected in inequitable distribution of wealth and social services, including sanitary and health facilities, education, and access to job opportunities were among the main causes for the Arab uprising, and they continue to be the main challenges facing these countries.

Moreover, it should be emphasized that a necessary requirement for achieving sustainable development is a secure, stable, and predictable macro-economic environment. Conflicts and wars in some Arab countries, particularly in Syria, Libya, and Yemen have claimed a heavy toll on their MDG gains. Launching action plans for the implementation of the SDGs requires first and foremost restoring political stability and the rule of law. Some other Arab countries are still grappling with political governance issues that need to be resolved to prevent sparking further uprisings and unrest.

B. GOOD GOVERNANCE, TRANSPARENCY AND ACCOUNTABILITY

Good governance represented mainly in national institutions that function in an effective and efficient, transparent and accountable manner are necessary for achieving sustainable development. These are lacking in most Arab countries, thus requiring corrective actions and reform in the existing institutional set-ups of governments. Lack of public participation, transparency and accountability represent one of the main constraints for the development and implementation of strategies, policies, and action plans. Adopting more transparent, accountable, and participatory approaches in the formulation and implementation of policies enhances the confidence of the public in the government, creates a sense of ownership on the part of citizens, thus contributing to a more positive attitude towards the government. This ultimately contributes to increased productivity and a more efficient use of resources. Good governance may therefore be regarded as a requirement for an outcome of sustainable development policies.

SDG16 "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels"

SDG17 "Strengthen the means of implementation and revitalize the global partnership for sustainable development"

Public participation is key in achieving sustainable development. Effective actual engagement of different stakeholders in the formulation, development, and implementation of strategies, policies, and plans is a necessary prerequisite for the successful realization of SDGs. Public participation ensures that priorities and concerns of the different segments of the population are taken into account in the formulation of policies,

plans and programs. It also promotes transparency, accountability, and the empowerment and effective engagement of different stakeholders, and consequently the successful implementation of proposed policies, plans and programs. Adopting top down approaches to development have proven their shortcomings, as they fail to reflect local priorities and concerns and the involvement of different stakeholders in the implementation process and the successful achievement of set targets and goals. Public participation may take different forms, including public policy dialogues, public hearings, surveys and questionnaires. What is also important is that governments should make the public aware of the status of implementation of the proposed programs, successes, failures, bottlenecks and proposed measures for corrective actions.

C. INTEGRATED POLICYMAKING

Policy development and implementation in most Arab countries lack integration of social, environmental, and economic aspects. In many instances emphasis is mainly laid on economic considerations without giving due attention to social and environmental considerations. Government policies may not only neglect these two dimensions, but may also result in negative implications on them. Adopting an integrated approach in policy development is therefore crucial in achieving sustainable development. Integrated policies that ensure complementarities and supportiveness of the three dimensions of sustainability should be developed. There is a need to depart from the assumption that there is always a tradeoff between the three dimensions of sustainability, which may still be the case at some point, but this should not be the starting point in the policy formulation process. Starting from this premise is apt to render environmental and social considerations a low priority as compared to the economic aspects. Adopting the proposed approach requires full understanding of the interlinkages and feedback loop between the three dimensions of sustainability. It will also benefit from the use of a modeling exercise that clearly shows the implications of the different weights and priorities given to specific goals on other parameters and objectives. It has been proven that countries following an integrated approach in policy formulation have been better able to achieve sustainable economic development that is inclusive and socially acceptable, while at the same time ensuring the integrity of the environment.

Integrated policymaking is not only meant to ensure the integration of social, environmental, and economic aspects in policy design, but is also intended to ensure the integration and coherence between different sectoral policies. This is particularly relevant when addressing the water-energy-food nexus and the close relationship and interlinkages between them. It is therefore essential that the design of a long-term vision and strategy for water, energy, and food considers closely those linkages and implications in order to optimize the outcome of the proposed policies, plans and programs, including the development and social component associated with them.

The general practice in most Arab countries is to develop policies in an isolated, segregated manner without proper coordination and integration between different sectors. This has resulted in a lack of coherence, coupled with shortsighted and deficient policies. It is therefore imperative that a proper mechanism is put in place to ensure proper coordination and integration of policies across sectors. Moreover, the increased number of ministries with unclear and sometimes overlapping responsibilities in most Arab countries further aggravates the situation. In almost all countries of the region, ministries of environment are the least budgeted with a restricted mandate confined to deal mainly with pollution related issues in isolation from mainstream economic sectors

Since the Arab world faces a water, energy, and food challenge, priority should be given to addressing these challenges with a focus on how integrated policymaking will help achieve water, energy and food security for the region. Emphasis in policy design should also be laid on how the proposed policy would help revitalize and diversify the economies of Arab countries, promote resource efficiency, enhance competitiveness and market access, create jobs, reduce poverty and improve human welfare of the population.

D. POLICY COHERENCE

Regulations supported by market-based incentives, if properly designed, can be quite effective in realizing sustainable development objectives. However, the general practice in

most Arab countries is the development of regulations, market incentives, as well as trade and finance policies along sectoral lines without taking into account the implications of one policy tool on the other and their implications across sectors. Moreover, the full social, economic and environmental implications of the proposed policy package is not properly assessed and analyzed. That is to say regulations related to buildings and new communities do not necessarily take into account their social, economic, and environmental considerations and in most cases their implications on resource consumption and on other sectors such as, for example, roads and transportation. It is therefore essential that the different policy tools are developed in such a way to ensure their supportiveness and coherence, and consequently their effectiveness in achieving sustainable development objectives.

Moreover, promoting tools and concepts such as the ecosystem approach, full lifecycle assessment, producers' responsibility, as well as consumers' responsibility can go a long way in promoting resource efficiency and reducing waste by producers and consumers. Adopting such approaches in the building and construction sector, for example will necessitate that the full social and environmental together with the economic aspects are taken into account in the construction of buildings. This includes accounting for the carbon footprint resulting from the production of building material, the construction and operation processes, as well as the demolition phase. Social factors to be considered include the number of decent jobs created and the health implications resulting from the building and construction process.

Moreover, other necessary enabling conditions such as research and development, education, public awareness, and capacity development policies should all be designed to support the overall strategic vision and direction of the country.

E. HIGH COUNCIL FOR SUSTAINABLE DEVELOPMENT

In order to ensure proper integration of policies and coordination between sectoral policies, policy coherence, as well as monitoring and follow up, it is proposed that a High Council for Sustainable Development attached to either the Head of State or the Prime Minister is established. It is proposed that such an entity includes the membership of all ministries concerned. This body should function in tandem with another entity that represents the private sector, industry, academia and civil society, and minority groups. The main mandate of this institution will be to ensure integrated policy formulation, adequate cooperation and coordination between different government entities, and between the government and all other stakeholders in the country. It will also be responsible for overseeing and assessing the implementation of the proposed strategy, action plan and programs, suggest corrective or remedial actions as may be required, and ensure adequate communication between the government, the general public, the private sector and civil society.

F. FOLLOW-UP, MONITORING AND IMPLEMENTATION

Though most Arab countries do not lack development plans, the main flaw lies in the lack of the sustainability element. This is in addition in many instances to lack of implementation, follow up, and an assessment mechanism as an integral part of the plan. In many countries of the region proposed strategies, plans and programs are mainly associated with a specific cabinet or minister which are not necessarily subject to being seen through by subsequent cabinets and ministries. This practice has led to the waste in the use of resources, and the disruption and delay in achieving the set government objectives. This practice should be discontinued, with successive cabinets and ministers building on previous set strategies, plans, and programs and introducing necessary corrective actions as appropriate to address changing circumstances and emerging issues. Adopting such an approach will save scarce resources, ensure continuity and consistency of strategies, plans, and programs, building and capitalizing on success stories and learning from mistakes.

An important requirement for sound decision making, follow-up, monitoring and implementation is the availability of high-quality reliable qualitative and quantitative data. This should be supported by adequate national capacities for data gathering, analysis and

interpretation. Though the role of data gathering and dissemination is normally assigned to national statistical systems, close collaboration should be maintained between them and other government institutions, including academia, the private sector, and civil society (Third International Conference, 2015).

G. HUMAN RESOURCE DEVELOPMENT

Investing in human capital is one of the key requirements needed to make a qualitative shift towards sustainable development. Apart from few countries in the region giving high priority to education, most countries in the region give education a low priority.

SDG 4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"

Investing in human resources includes reforming the education system in Arab countries to produce a future generation of highly qualified calibers of scientists, researchers, policy makers, practitioners and skilled workers needed to support sustainable development efforts. This requires making an emphasis on an education system that encourages innovative thinking, research and development. A reform that ensures the integration of sustainability considerations (environmental and social) across sectors. The education system needs to result in the production of calibers that are capable of supporting a transition to a green economy as a tool to achieve sustainable development. Particular attention should be given to vocational training to generate a caliber of skilled labor capable of introducing and applying resource efficient techniques, and handling new innovative environmental friendly technologies. The new generation of calibers include policy makers and practitioners that would be able to support integrated policy making across sectors (agriculture, industry, tourism, housing and construction, and transportation), in addition to water and energy efficient policies, the use of renewable water and energy resources, and integrated waste management.

H. INVESTING IN THE ENVIRONMENT

Investing in environmental and natural resources with a view of how such investments would support economic and social development should be the main guiding principle in developing national development strategies and action plans in the Arab region.

There is a need to depart from the conventional belief that environmental considerations represent a constraint and an impediment to development, to perceiving them as opportunity for achieving inclusive and equitable sustainable development.

I. PHYSICAL INFRASTRUCTURE DEVELOPMENT

An efficient physical infrastructure is necessary to support sustainable development. Priority should be given to electricity and water networks and services, road network, transportation system, wastewater treatment and sewage facilities with emphasis given to the construction of biogas production units in villages and remote communities. Priority should be given to investing in renewable sources of energy and water, including water recycling and desalination using renewable sources of energy. This should be supported by a package of regulations and incentive measures that encourage the shift towards sustainable production and consumption patterns, thus promoting efficiency in the use of water, energy, food, and other factor inputs, and a shift towards renewable water and energy sources and integrated waste management techniques and practices.

SDG12 "Ensure sustainable consumption and production patterns"

Emphasis in the design of road and transportation systems should be given to the development of environmental friendly public transport systems vis-à-vis private car ownership. Apart from reducing CO_2 emissions, this will also contribute to promoting social justice by catering for the needs of the middle and low income families. This is further achieved by laying emphasis on planning for road construction and transportation systems for

rural and remote areas, thus providing access to economic and job opportunities and markets for these communities.

J. RESEARCH AND DEVELOPMENT

Innovative approaches and environmentally sound technologies are key in achieving sustainable development objectives and addressing climate change concerns. There is a need for a clear long-term research strategy to support the realization of sustainable development objectives. Such a strategy which should be socially acceptable, environmentally sound, and economically viable is thus significantly important for contributing to sustainable development and GDP growth.

SDG13 "Take urgent action to combat climate change and its impacts"

Areas of research may include innovative technologies for renewable sources of water and energy, the use of renewable sources of energy for water desalination, waste to energy, environment friendly public transport systems, water saving and efficient crops, building and construction material and techniques, green industrial technologies, and waste recycling equipment. The potential of industry and the private sector, academia, and national research institutions should be tapped into and close linkages between them established.

K. METHODOLOGICAL APPROACHES AND TOOLS

Transitioning into a green economy is one of the most effective tools to achieve sustainable development. The concept was launched by UNEP in October 2008 in response to the financial and economic crisis facing the world. It emphasizes investing in environmental resources as a means to improve human well-being and social equity. It also emphasizes investing in the environment as a means to achieving sustainable economic growth. Rather than considering the environment as a constraint to development, it should be viewed as an opportunity for achieving sound and sustainable development. Adopting a green economy approach promotes the revitalization and diversification of economies, efficiency in the use of natural resources and factor inputs, reduces waste, promotes innovation, enhances competitiveness and market access, creates new jobs, and improves health and human welfare.

"A green economy is one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities" (UNEP 2010)

Promoting sustainable consumption and production patterns is essential in enhancing resource efficiency and reducing waste. It is estimated that about one third of produced food is wasted worldwide. This figure is expected to be higher in the Arab world, given their current consumption practices. Wasteful food, water, and energy consumption in Arab countries is attributed to cultural and traditional considerations, as well as to the low price level of these resources. Subsidies provided by most Arab countries for water, energy and food induce wasteful consumption of these resources. However, a number of countries in the region have already started taking steps to phase out subsidies on these resources.

The main tool for measuring economic performance continues to be the system of national accounts (SNA). It is used by governments to provide an indicator for the performance of an economy. It was introduced in the 1930s mainly to measure the value of goods and services produced in a country. However, the SNA is not a correct indicator for measuring sustainable development and human welfare. It does not reflect the depletion and degradation of resources and provides a distorted picture regarding the performance of the economy. It reflects damage, and the cost of selling natural assets such as oil and natural gas as an income. Attempts to provide an alternative measurement or indicator started in the early 1980s when UNEP, together with the World Bank, started off an initiative exploring the introduction of environmental accounting as a genuine measure for the real performance of an economy.

Since the early eighties a great deal of work has gone into the development of methodologies for green and environmental accounting or what is referred to by the Statistics Division of the United

Nations Division of Economic and Social Affairs (DESA) as "Integrated Environmental and Economic Accounting". The need to go beyond the GDP has been further stressed in the Stiglitz Commission Report on the Measurement of Economic Performance and Social Progress established in 2008 to identify the limits of GDP as an indicator for human wellbeing. The proposed system for green accounting is reflected in «The Handbook of National Accounting: Integrated Environmental and Economic Accounting 2003». The Handbook brings together economic and environmental information in a common framework to measure the impact of the economy on the environment and vice versa. This has been followed by the preparation by the United Nations Department of Economic and Social Affairs (DESA) of a revised version of the System of Environmental and Economic Accounting (SEEA). The final version of the SEEA Central Framework was published in February 2014.

Apart from several developed countries who have developed green accounting systems such as the Netherlands, Germany, and France, developing countries introducing the system include China, Indonesia, and the Philippines (Sustainable and Green Growth for Egypt, 2011). There is little or no evidence that Arab countries have taken steps towards introducing environmental or green accounting as an indicator for achieving sustainable development.

L. THE ROLE OF DIFFERENT STAKEHOLDERS IN IMPLEMENTING SDGs

Achieving sustainable development requires the concerted efforts of different stakeholders in a coordinated manner. The role of governments should continue to be mainly regulatory and supervisory, and providing the enabling and facilitating conditions for different entities to contribute to sustainable development. One of the main roles of governments, as stated earlier, is to provide the right kind of institutions that function in an efficient, transparent and accountable manner. They should provide a predictable and secure macroeconomic environment that encourages and attracts local and external investment. A stable macro-economic environment is represented in stable and predictable fiscal policies, including exchange rates, policies related to investment requirements, the registration and creation of new companies, laws governing the allocation of land, transfer of funds, and import of technologies and equipment required for investment projects. Governments also play a critical role in the design of policy packages that promote sustainable production and consumption and the transition to a green economy and consequently the achievement of sustainable development objectives.

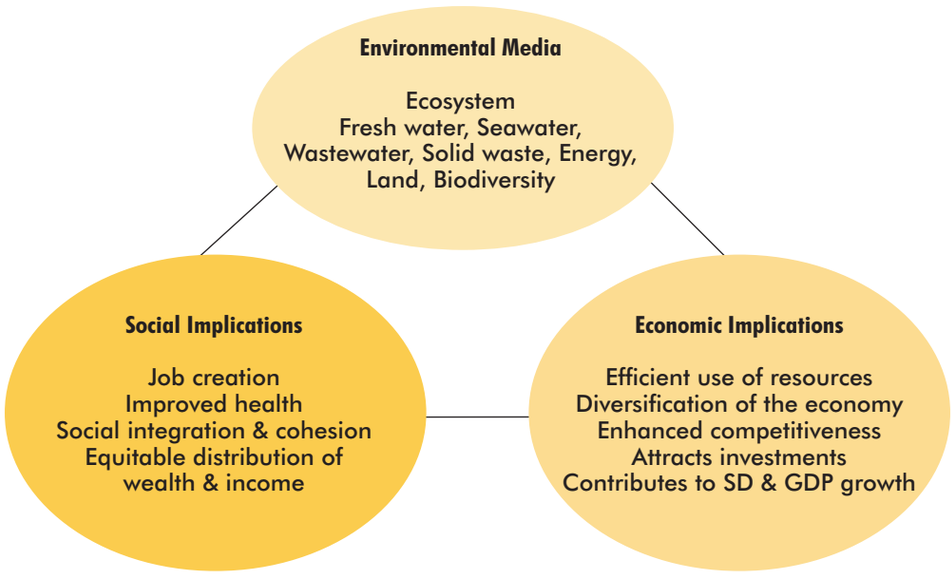
1. The Private Sector

Governments alone cannot address the challenges facing achieving the sustainable development goals. The private sector has an important role to play in the implementation of proposed strategies and the achievement of sustainable development. Characterized by more efficient and accountable operating structures, qualified technical and operating staff and efficient and flexible administrative structures, technical and financial capabilities, the private sector can play an effective role in supporting governments in achieving sustainable development. Governments need, though, to provide the necessary enabling environment to encourage private sector engagement. Public-Private-Partnership (PPP) provides an effective arrangement for utilizing the potential of the private sector in investing in different sectors, including the housing sector, transportation, water, energy, agriculture, industry and tourism. PPP should therefore be promoted, where governments would, apart from providing the necessary enabling conditions for the private sector to operate in different sectors, provide the framework and guiding principles for that sector to ensure that the development component is taken into account in the implementation of projects. This is while at the same time allowing the latter to fully utilize their full technical and operational capabilities and expertise to realize governments' sustainable development objectives.

2. Research Institutions

The development of a long-term R&D strategy to support the implementation of sustainable development, achieve SDGs and address climate change concerns is essential. In order to develop an effective R&D strategy, there should be close

FIGURE 12 INVESTING IN THE ENVIRONMENT



collaboration between research institutions, academia, and the private sector. Researchers in research institutions and universities should be fully aware of government policy directions as well as the needs of the different sectors in order to direct their research accordingly. Close coordination between relevant institutions should therefore be maintained in order to ensure that R&D is consistent with government policies and is designed to support sustainable development objectives.

3. Civil Society

Civil society has an important role to play in promoting and implementing sustainable development. This is mainly due to their knowledge of realities on the ground, priorities, concerns and actual needs of local communities. Moreover, civil society organizations through effective stakeholders' engagement have gained the confidence and trust of local communities, and consequently have greater potential in implementing sustainable development programs, plans and projects. Governments should therefore capitalize on the potential of civil society organizations by providing the necessary enabling conditions for their effective engagement. This may be achieved by facilitating the registration and creation of civil society organizations, reducing cumbersome and complicated registration requirements, encouraging their involvement in the implementation of sustainable development plans, programs, and projects by assigning them specific activities in support of government efforts in the various sectors. Specific activities that civil society organizations would be most effective in undertaking include the following:

- Designing and implementing public awareness campaigns, including the development of communication packages targeting different stakeholders..
- Undertaking a needs assessment for capacity building requirements for the different target groups, including policy and decision makers, practitioners, skilled labour needed to support the transition to green economy and sustainable development.
- Organizing and conducting national workshops and seminars aimed at promoting sustainable development in different sectors.
- Conducting training and sensitization courses and sessions for different target groups aimed

at enhancing local capacities in achieving SDGs and implementing sustainable development policies, plans and programs.

- Implementing projects on the ground, which may include capacity building and public awareness related projects, training the trainers programs. Other activities may include the implementation of sustainable development related projects, such as organic and sustainable agricultural projects, cleaner production related activities, integrated solid waste, including waste to energy, and the production of compost from municipal solid waste and agricultural waste.

4. Media

The role of media in awareness raising and communicating the benefits of greening national economies and transition to a green economy and a sustainable development path cannot be ignored. The potential of media in reaching out to the different segments of the population with their different backgrounds, levels of education, priorities and concerns should be adequately utilized to support the transitioning to a green economy and the achievement of SDGs. The media has also the potential of reaching out to the general public in different geographic locations and in remote areas. There is a great need, in the first instance to communicate and make explicitly clear what is behind the different concepts and approaches, what are their implications, advantages, and what actions are needed to achieve the desired outcomes. To many, the term sustainable development for example is still an ambiguous term and has different meanings for different people. It is therefore essential that there is a common understanding at the national level of the meanings of the different concepts and approaches. The media should thus also have a full understanding of the concepts and terminologies and should be fully versed and updated about the main sustainable development related issues on the international agenda.

Lack of knowledge and understanding by media is likely to result in communicating the wrong message with negative implications, including failure to mobilize different stakeholders to support sustainable development efforts. It is therefore essential that the media is properly briefed about the main concepts, issues involved and their implications for the different stakeholders and the country as a whole. It should be emphasized that the sensitization of media should not be confined only to those responsible for the environment portfolio, but should be extended to those covering economic and development matters due to the inter linkages and interconnectedness of the issues. This will also allow for a broader coverage and outreach.

5. Development Institutions and Donor Agencies

Development and donor funding can play an important role in supporting sustainable development activities if properly utilized. However, the lack of adequate coordination of activities by development and donor institutions at the national level can sometimes result in the duplication of efforts and the inefficient use of donor funding, and consequently the ineffectiveness of donor funded activities. Though attempts have been and continue to be made by donors to properly coordinate their activities at the national level, a great deal is yet to be desired to achieve this end. It should be emphasized, however, that coordination of activities by donor and development institutions should be the role of governments. It is essential that proper coordination is maintained between activities supported by development institutions and donor agencies in order to avoid duplication of efforts, ensure the supportiveness and complementarities of activities and enhance the effectiveness of efforts at the national level.

6. Financial Institutions

Making available the needed financial resources is necessary to support the implementation of sustainable development activities, including achieving the SDGs and addressing climate change concerns. Financial institutions should be directed towards providing funds and soft loans for supporting sustainable development activities. Emphasis should be given to providing soft loans to support priority areas including water, energy, and food production for small and medium size enterprises (SMEs). Priority should also be given to funding activities contributing to capacity development and education, public awareness, and health. Seeking loans from

international financial institutions and donor agencies to meet public deficits, payment of subsidies and salaries should be avoided to the maximum extent possible. This is because such loans are not directed towards investment projects that will result in financial returns and that will enable the repayment of loans and the servicing of the debt, hence placing financial burdens on current and future generations.

A change in the mindset and culture of designing strategies, policies, plans and programs, and their monitoring and assessment is essential if Arab countries are to achieve sustainable development and address climate change concerns. Adopting an integrated approach to policy making is a necessary requirement for achieving sustainable development. This should be supported by a package of regulatory and market-based measures in order to ensure that the proposed policies, plans, and programs are economically, socially equitable, and environmentally acceptable. Moreover, adopting a transparent, accountable, and participatory approach is a necessary requirement for achieving this end.

Section 5
FINANCING THE SDGs

Hussein Abaza

Although a series of measures have been introduced to stabilize the financial system at the global level, it still remains vulnerable and continues to be unstable. Access to finance by many groups continues to be limited and the financial system remains weak in directing savings to meet long-term investment needs (UNEP, 2015). This in turn has a direct negative effect on financing sustainable development and the achievement of SDGs. Ensuring the financial sustainability of policies, plans and programs is key for achieving sustainable development.

The financial system as currently designed is not geared to supporting sustainable development. Efforts are therefore needed to align the financial system at the international and national levels to support sustainable development. It is becoming increasingly recognized that there is a need to integrate sustainability into the financial system in order to yield short and long-term benefits (UNEP, 2015).

> *"Sustainable financial system is therefore one that creates, values and transacts financial assets in ways that shape real wealth to serve the long-term needs of an inclusive, environmentally sustainable economy."*
>
> UNEP Inquiry Report, 2015

The financial and economic crisis that emerged in 2008 has underscored that the current development paradigm has its shortcomings. This has prompted UNEP to launch the Green Economy Initiative, which emphasizes investing in environmental and natural resources as an essential requirement for achieving sustainable development.

It has been estimated that the financial requirements needed to transition to a green economy and implement sustainable development activities worldwide is in the tune of US$ 1.05-2.59 trillion annually. This figure is less than one tenth of the total annual global investment (measured by global Gross Capital Formation). If we were to allocate an annual level of funding of US$ 1.3 trillion, a 2 percent of global GDP will be required to finance sustainable development (UNEP, 2011). Applying the same percentage of 2 percent for Arab countries to support sustainable development activities, an additional amount of US$ 57.38 billion (GDP US$ 2.869 trillion – 2014) annually would need to be allocated for greening the Arab economies.

According to the United Nations Conference on Trade and Development (UNCTAD), it is estimated that US$ 5-7 trillion annually is needed to finance the SDGs (World Investment Report 2014). Developing countries alone will require US$ 3.9 trillion annually. Currently US$ 2.5 trillion are being provided leaving a gap of US$ 2.5 trillion (UNEP, 2015). It is estimated that the financing gap in Arab countries for achieving SDGs is between US$ 80-85 billion annually in 2015 and 2016. These estimates should be considered as indicative as they do not take into account possible synergies between SDGs and variations in level of spending and commitment to the SDGs in Arab countries (ESCWA, 2015).

However, it should be emphasized that apart from securing additional financial resources, focus should be on the mobilization and the redirection of existing local financial resources, both public and private, towards supporting sustainable development activities. Moreover, policy coherence and harmonization will go a long way towards achieving this objective, as it does not make any economic sense to maintain conventional investment options, while at the same time aiming to channel funds to support new and innovative environment-friendly sustainable investments.

A. GOOD GOVERNANCE

Adopting sustainable development policies, if properly designed and implemented, is likely to generate sufficient funding to support sustainable development activities. Domestic resource mobilization supported by public policies are key for achieving sustainable development. These policies include good governance, adequate fiscal space, countercyclical fiscal policies, and measures to combat corruption (UN-DESA, 2015).

One of the challenges facing several Arab countries is illicit finance flows and money laundering. Efforts should be made to reduce and eventually eliminate these practices, including combating tax evasion by national and transnational corporations. The International Monetary Fund (IMF), the World Bank, and the United Nations should be called upon to assist in that matter. International and regional institutions may be called upon to publish estimates on the composition and volume of illicit financial flows. As per paragraph 25 of the Declaration of the Finance for Development Conference held in Addis Ababa in July 2015, Arab countries should be encouraged to ratify and accede to the United

Nations Convention against Corruption as a means to detect, deter, prevent and counter corruption and bribery, and recover stolen assets to the country of origin (UN-DESA, 2015).

> *"Governance architecture can promote the development of a financial system that is sensitized to sustainable development."*
>
> UNEP Inquiry Report, 2015

Efforts should be made to introduce regulatory frameworks that increase transparency and accountability of private companies and financial institutions, as well as the public sector. Moreover, investing in research and development and efficient data gathering, analysis and dissemination systems are critical in supporting sustainable development efforts.

B. SUSTAINABLE CONSUMPTION AND PRODUCTION

Arab countries import about a third of traded cereals worldwide (World Bank and FAO, 2012). With increased population levels and water scarcity, Arab countries are faced with a rather serious food security problem. Adopting more sustainable consumption and production patterns would result in the more efficient use of natural resources and other factor inputs in the various sectors. Efficiency in food consumption for example will result in savings in food consumption as well as energy and water consumption. About 85 percent of water consumption in Arab countries is used for agriculture. Adopting efficient and sustainable agricultural practices in the agriculture sector will result in a large amount of water savings. Moreover, reducing the import of food in subsidies for food products, energy and water can generate financial resources that can be directed towards financing sustainable development activities, realizing the objectives of SDGs, and addressing climate change concerns.

C. PRIORITY INVESTMENT AREAS

1. Investing in Human Capital

A necessary prerequisite for achieving sustainable development and encouraging domestic and foreign investment is the availability of professional and skilled labor needed to support sustainable development. Investing in modern education systems that emphasize research and innovation is critical in making a transition towards a green and sustainable economy. Investing in the education system should be complemented by investments in the health system. Additional investment needs for education for developing countries is estimated at US$ 22 billion, while for health the estimated amount is about US$ 24 billion annually to meet the SDGs. Funding required at the global level for addressing climate change mitigation is estimated at US$ 380-680 billion and for climate change adaptation US$ 60-100 billion annually (Schmidt-Traub and Sachs, 2015). It is estimated that Arab countries would need between US$ 110 billion to US$ 150 annually to address climate change adaptation and mitigation (ESCWA, 2015).

2. Investment in Natural Capital

In addition to the importance of investing in human capital, investing in natural capital is considered to be a cornerstone for achieving sustainable development. Apart from oil, the export of natural resources represents a major source of income. The sound management of natural capital is therefore essential to maintain the sustainability of natural assets in the region. This includes investing in ecosystem services, as well as agricultural products, sub-soil mineral resources, surface natural resources such as phosphate, marble, and sand. In order to enhance the value of these resources, efforts should be made to invest in value addition and processing of natural resources. Governments should provide the necessary incentives and regulatory framework to encourage public and private sector investment in natural capital. It is estimated that investment in ecosystem services and biodiversity alone requires US$ 6 billion annually at the global level (Schmidt-Traub and Sachs, 2015).

3. Investment in Infrastructure

One of the constraints for attracting investments in sustainable development projects is the lack of adequate infrastructure. It is therefore important that Arab countries allocate sufficient funding for investment in infrastructure. This includes investment in water and sanitation, renewable energy, sustainable communities, and environment friendly road and transportation networks. This can partly be achieved by providing incentives for private sector investment and through PPP. It is also proposed that Arab countries develop a long-term transboundary program for infrastructure

INTEGRATING SUSTAINABILITY CONSIDERATIONS IN THE FINANCIAL SYSTEM

- Integrate sustainability risk factors into credit analysis
- Introduce requirements to disclose policies on sustainability
- Introduce requirements for reporting on sustainability performance annually
- Create green investment funds and banks
- Enhance sustainability capabilities of policymakers and financial regulators
- Develop financial literacy programmes to include sustainability considerations
- Incorporate sustainability considerations into financial markets and asset purchase programmes
- Integrate environmental and social considerations in lending operations
- Promote diversity of financial institutions in terms of geographical coverage, size and business model
- Restrict financial transactions that result in social and environmental costs
- Facilitate lending for priority sectors, green investment
- Facilitate lending for private sector, including SMEs
- Align fiscal incentives for savings, lending, investment, and insurance with sustainability
- Introduce standards and regulations to facilitate capital raising such as green bonds
- Promote knowledge and training on sustainability to undertake fiduciary responsibility

Source: UNEP Inquiry Report, 2015

development that promotes linkages and trade between Arab countries. Blended finance through PPP, combined with clear accountability mechanisms encourages private sector engagement in sustainable development projects.

4. Subsidies

In addition to their market distorting effects, subsidies represent a major burden on government budgets in most Arab countries. This is in addition to the negative impacts on resource use represented in the inefficient allocation and use of resources and increased volumes of generated waste and pollution.

At the global level, fossil fuel consumption subsidies amounted to US$ 493 billion in 2014, lower by US$ 39 billion from the previous year. This amount is more than four times the value of subsidies for renewable energy (International Energy Agency, 2015). Energy subsidies in the MENA region (including Iran) amounted to US$ 237 billion in 2011, which is equivalent to 22 percent of government revenues (IMF, 2014). Energy subsidies amounted to US$ 43.52 percent in Saudi Arabia, 20.28 percent in Egypt, 18.15 percent in UAE, and 10.59 percent in Algeria (AFED, 2015).

"Sustainable development requires changes in the deployment and relative value of financial assets and their relationship to the creation, stewardship and productivity of real wealth."

UNEP Inquiry Report, 2015

As for food subsidies as a percentage of GDP, it represented 2.1 percent in Syria, 1.8 percent in Jordan, 1.3 percent in Egypt, and 0.7 percent in Morocco (World Bank, FAO, IFAD, 2009). Several Arab countries have already taken steps to phase out energy subsidies. Those included Bahrain, Egypt, Jordan, Kuwait, Oman, Morocco, UAE, and most recently the Kingdom of Saudi Arabia (Ministry of Finance, Budget document, Kingdom of Saudi Arabia, 2016). Phasing out subsidies in the Arab region, apart from contributing towards more sustainable consumption and production and consequently the efficient use of resources, is expected to save billions of dollars annually that can be used to support sustainable development activities.

5. Taxes

Taxes are one of the main income generating sources for governments. According to the IMF, there is a need to enhance the national capacities in Arab countries to enable more efficient tax collection systems in the region. Arab countries with relatively high tax effort include Morocco and Tunisia, followed by Egypt, Jordan, Lebanon, and Algeria (ESCWA, 2015). However, tax systems need to be designed not just simply to raise funds for government coffers, but also to influence attitudes towards more sustainable patterns of consumption and production.

Regressive tax systems harm people, particularly poor income groups, women, minority groups and under privileged communities. In order to ensure the equitable distribution of wealth and that the tax system does not represent a burden on middle and low income families, a progressive tax system should be introduced. Tax systems need to be reviewed to ensure that they are pro-poor and pro-environment.

Moreover, the informal sector constitutes a high percentage of the economy in most Arab countries.

Five steps are proposed to embed financing for sustainable development at the heart of tomorrow's global financial system and deliver the much-needed transformation. These steps build on country-level experience in advancing ambitious plans to ensure that the financial system fulfils its historic purpose of meeting long- term needs, engages key international institutions effectively and develops the new generation of methods and standards that can institutionalize sustainable development in the governance and practice of financial and capital markets worldwide.

ACCELERATORS OF TRANSFORMATIVE FINANCE

1. National financial market reform and development plans to embrace consideration of the Sustainable Development Goals and Paris climate commitments, and vice versa.
2. Financial technology mobilized to support the accelerated alignment of the financial system with sustainable development, particularly for developing countries.
3. Public finance to undergo a disciplined analysis and, as required, redeployment to align to the Sustainable Development Goals and Paris climate commitments.
4. Investing in awareness-raising and building key capabilities, so that the financial community can effectively implement new approaches and plans.
5. Development of common methods, tools and standards to enable sustainable development priorities to be measured and incorporated into financial practice.

Source: UNEP (2016). Financing Sustainable Development

It is estimated that the informal sector in Egypt constitutes 45 percent of the economy, and in Jordan it is 20 percent (ESCWA, 2015). Measures should be taken to integrate the informal sector in order to broaden the tax base. This should further be supported by enhancing the efficiency of the tax collection system. Governments should set national targets for enhancing domestic revenues as part of national development strategies (AFED, 2015). Moreover, Arab countries should seriously consider the introduction of a carbon tax due to its positive impacts on the environment and on addressing climate change concerns.

6. Trade

Revenue from export represents one of the main sources of income and finance. Trade policies, if properly designed, can be a main source for foreign exchange earnings needed to support sustainable development, job creation and growth. However, trade policies need to be designed to ensure the sustainable management of natural resources. On the other hand, investing in green products could enhance the competitiveness and market access opportunity for locally produced products, equipment, and technologies. To achieve this end, the long awaited Arab Trade Agreement should be negotiated and finalized to support Arab efforts in achieving SDGs and the implementation of other international environmental agreements.

7. Reviewing the Current Financial System

Mobilizing financial resources for SDGs requires introducing sustainability measures in the financial system. This is justified due to the following reasons:

a. Managing risk: Intervention in the financial system may be justified due to insufficient risk management resulting in negative environmental and social impacts.

b. Promoting innovation: This may be generated through the issuance of green bond markets by setting green standards to enhance investor confidence and improve market performance.

c. Strengthening resilience: It is estimated that losses due to natural disasters worldwide amount to US$ 250 billion to US$ 300 billion annually, which is likely to negatively impact the financial system, thus requiring an intervention.

d. Policy coherence: It is important to ensure that the financial system is in line with government policies aiming for a transition to a green and sustainable economy (Schmidt-Traub and Sachs, 2015).

8. Financial Institutions

Regulatory frameworks should be developed and introduced along with risk mitigation mechanisms to encourage and govern lending for sustainable development projects. These regulatory frameworks should be supported by incentive measures to support financial market stability. Equity considerations should be taken into account in introducing regulatory reforms making finance available to women, and middle and low income groups. This includes supporting micro finance cooperatives, development banks, agricultural banks, mobile network operators, mobile banking, and postal banks (UN-DESA, 2015).

9. International Public Finance

International public finance, both concessional and non-concessional, has an important role to play in supporting national efforts to finance sustainable development activities. It should also be used to encourage domestic public and private finance. However, there is a need to ensure that funding secured should be properly deployed in order to have the desired impact on sustainable development. In spite of the long standing commitment of developed countries to provide 0.7 percent of national income for Official Development Assistance (ODA), an average of only 0.3 percent has been achieved (ESCWA, 2015). The Addis Ababa Declaration has called upon developed countries to achieve the target of 0.7 percent of ODA/GNI and 0.15 to 0.2 percent ODA/GNI to least developed countries within the timeframe of the post-2015 agenda (UN-DESA, 2015).

Among the top Arab ODA receiving countries in 2014 were Syria US$ 4,330 million, Egypt US$ 3,532 million, Jordan US$ 2,699 million, and Morocco US$ 2,228 million. Yemen received US$ 1,150 million, Tunisia US$ 930 million and Sudan US$ 866 million in the same year (Development Aid at a Glance (2016), Statistics by Region, 6 edition, OECD).

It should be noted however, that over the last four decades, Arab aid has continued to represent an increasing percentage of total global aid. It is estimated that Arab Official Development Assistance accounts for 13 percent of total ODA and three quarters of non-DAC ODA (World Bank, 2015a). Not only this, but Arab Aid in the form of ODA, particularly from Saudi Arabia, Kuwait, and the United Arab Emirates to Arab and other developing countries averaged 1.5 percent of their combined Gross National Income (GNI) during the period 1973-2008 (World Bank, Arab Development Assistance: Four Decades of Cooperation, 2010).

10. Foreign Direct Investment

Net foreign direct investment (FDI) in most Arab countries is negative, which is mainly attributed to weak governance systems (ESCWA, 2015). FDI as a percentage of GDP was estimated at 27.73 percent in Mauritania and 19.64 percent in Djibouti, while in Lebanon and Libya it reached 6.39 percent, and in Egypt 2.04 percent (World Development Indicators, Doing Business 2015 - The World Bank Group).

Arab countries should design policies that encourage foreign direct investment with emphasis given to investments in innovative green technologies and sectors, and the engagement of local enterprises, especially SMEs. Priority for FDI should be directed to sectors that are not attractive for private sector investment, and with the highest potential for creating new jobs. Priority should be given to investment in areas that contribute to the diversification of the economy in industry, agriculture, and infrastructure. Arab countries in need of FDI should consider the use of insurance, investment guarantees, including through the Multilateral Investment Guarantee Agency to encourage FDI (World Bank, 2015a).

11. Arab National and Regional Development and Financial Institutions

National and regional banks have an important role to play in financing sustainable development. Efficient national and regional financial institutions, with sound lending frameworks and compliance and appropriate environmental and social safeguards can play an effective role in financing sustainable development, particularly in credit markets which experience financing gaps (World Bank, 2015a). This includes financing sustainable infrastructure, such as roads and transportation systems, water, energy, agriculture industry, tourism, housing and urban development, and technology development.

Financing SMEs should be encouraged in order to promote their integration in the development process in the Arab region. This can be achieved by allowing them to use collateral substitutes, reduce entry and exit costs, and provide exceptions to capital requirements.

Innovative financial mechanisms include development-oriented venture capital, blended finance, risk mitigation instruments, and innovative debt funding structures combined with risk management and regulatory frameworks (World Bank, 2015a). Arab national and regional development institutions established a Coordination Group (CG)[5] in 1975, which can provide an important source of funding for sustainable development goals in the Arab region. These institutions have been playing an important role in delivering development assistance to Arab and other developing countries. Their combined financing operations benefited over 140 countries

across the globe with a total cumulative amount of about US$ 147 billion at end 2014, with a share of over 55 percent for Arab countries (Coordination Group Secretariat, Arab Fund for Economic and Social Development).

The CG institutions have pledged their support to achieving the SDGs in developing countries. The Arab countries can greatly benefit from the financing operations of the CG, covering various economic and social sectors, with due consideration to environmental concerns. Moreover, they have gathered vast experiences in the area of development cooperation, and they can help partner countries in the adoption and application of best practices in the preparation, evaluation, and implementation of development operations to ensure their sustainability and effectiveness.

12. United Nations, International Conventions and Funding Mechanisms

The United Nations and Bretton woods organizations and multilateral agreements offer another potential source of funding sustainable development. Meeting commitments with respect to international conventions offer funding opportunities for Arab countries. This includes the Global Environment Facility (GEF), global Strategic Plan for Biodiversity for 2011-2020 and its Aichi Biodiversity Targets, The United Nations Convention to Combat Desertification, the Montreal Protocol on Substances that Deplete the Ozone Layer, and the Climate Change Convention. In the latter case the Green Climate Fund (GCF) with a US$ 100 billion of pledged funding provide a funding opportunity for Arab countries. The challenge is developing well-designed and credible projects that qualify for funding through the GCF.

Arab countries should join calls for supporting efforts for governance reform in both the IMF and the World Bank to adapt to changes in the global economy, including supporting the implementation of SDGs and responding to the needs of Arab countries.

13. Civil Society and Philanthropic Organizations

Civil society has an important role to play in providing technical and financial support for sustainable development activities. Financial and non-financial contributions by philanthropic institutions can also play an important role in supporting sustainable development. Governments should encourage civil society and philanthropic organizations to provide financial and technical contributions towards sustainable development and aligning their activities with government policies, plans and programs. Development and humanitarian finance offer an opportunity for channeling those funds to support sustainable development activities. Arab countries, particularly those in post conflict situations, should create mechanisms for the management of development and humanitarian finance in the most efficient and effective way. This should be supported by capacity building efforts to strengthen national capacities and institutions to deal with conflict stricken areas in affected countries (World Bank, 2015a).

14. Remittances of Migrant Workers

In a number of Arab countries such as Egypt, remittances of nationals working abroad represent a considerable percentage of foreign exchange earnings. Governments are therefore encouraged to make available adequate financial services to nationals working abroad and migrants and their families in both home and host countries to facilitate the transfer of funds to their respective countries. This includes reducing average transaction costs. According to paragraph 40 of the Addis Ababa Declaration, countries should aim at bringing transaction costs to less than 3 percent of the amount transferred.

15. Private Sector

As referred to in section III on Implementation of the SDGs, the private sector has a very important role to play in investing in sustainable development. This is particularly so, as in several Arab countries existing public institutions neither have the technical nor the financial capacity to support sustainable development activities. The private sector has the financial and human resources and managerial skills to support sustainable development activities. It also has the practical experience and knowledge about existing situations, opportunities and constraints on the ground and how best to deal with them. The physical presence of the private sector and its direct contact with local communities and realities on the ground provide the private sector with first-hand information and knowledge

about local circumstances, how best to engaged local communities and respond to their needs and priorities. The private sector, both domestic and foreign should be encouraged to support government efforts in designing and implementing sustainable development policies, plans, and programs, including through PPP. Providing the right incentive package for the private sector is expected to tap onto large financial resources that can be channeled to support sustainable development activities. This is particularly important in Arab countries, where government budgets are already overstretched.

Lack of human capacities and skills and innovation is one of the necessary requirements for achieving sustainable development. The role of the private sector in this regard cannot be but overemphasized. Arab countries should therefore encourage the private sector through a package of incentives to invest in capacity development and R&D.

Moreover, in most Arab countries domestic savings channeled through the banking sector and capital markets need to be stimulated (ESCWA, 2015). This can be achieved by ensuring stable and more predictable banking and exchange rate regulations that encourage savings by individuals and institutions. These savings can in turn be channeled to support sustainable development activities.

It should therefore be emphasized that regulatory frameworks supported by incentive measures should be introduced that direct private sector investment towards sustainable development projects. This is also in line with Monterrey that recommended the building up of transparent, predictable, and stable investment environment, with adequate enforcement of contracts, respect to property rights, sound macroeconomic policies and institutions (UN-DESA, 2015).

16. Debt Sustainability

Borrowing is another source of funding, that many countries in the Arab region rely on to support national development plans. Several Arab countries have reached a high level of public debt to GDP. In Lebanon the public debt reached 145 percent, while in Egypt it is 95 percent, Jordan 86 percent, and Morocco 77 percent (ESCWA, 2015). However, debt servicing and repayment represents a burden on several Arab countries, resulting in what may be referred to as a debt crisis situation. It is therefore essential to ensure debt sustainability through coordinated policies aimed at strengthening debt management through debt relief, debt restructuring, debt and financing. Analysis and principles such as those provided through the IMF-World Bank debt sustainability analysis, UNCTAD's principles on responsible sovereign lending and borrowing should be considered to ensure debt responsibility (ESCWA, 2015). Arab countries may consider developing guidelines for debtor and creditor responsibilities by borrowers and lenders to manage borrowing in a more sustainable way.

D. Innovative Finance Mechanisms

1. Results-based financing: Results-based financing offers an innovative source of finance which provides funding based on the results achieved from a project or activity. This approach promotes transparency, accountability, improved management and efficiency, and ownership (World Bank, 2015b).

2. Financial risk management mechanisms: These mechanisms are intended to leverage public funds and create incentives for private sector engagement by correcting market failures, reducing macroeconomic and climate-driven vulnerabilities. This may be achieved through government guarantees, blended finance, and derivatives. Such mechanisms provide insurance against risks, through risk sharing or full risk transfer (World Bank, 2015b).

3. Green Funding: New innovative funding can be generated through taxes, fees, and charges levied by governments to finance green investments and sustainable development. Green bonds to finance green investments are also increasingly being introduced in capital markets worldwide, where it reached US$ 40 billion in 2014 (ESCWA, 2015). Ethical finance based on the religious beliefs that are very much in line with sustainable development provide another untapped source of funding in the Arab region. Promoting green bonds and Ethical funding in Arab countries should therefore provide a reliable source of funding green and sustainable development activities. This should be supported by efforts by Arab countries to green their financial systems thus directing more funds towards sustainable development activities.

CONCLUSION

Since early 2011, the Arab region has been experiencing political turmoil that is expected to have far-reaching repercussions on sustainable development and on the transition to a green economy. AFED ninth annual report concludes that implementing the 2030 Agenda and achieving the Sustainable Development Goals (SDGs) in Arab countries cannot be done in isolation from the state of conflict in the region.

More than 10 of the 22 Arab countries are either under occupation or experiencing war or conflict, tens of millions of people are refugees or internally displaced, and many people lack basic needs and rights at various levels. Almost all Arab countries are experiencing or are adjacent to countries experiencing significant instability, which undermines the potential advantages of regional cooperation and the critical role it can play in enhancing the implementation of national development goals.

Even if cessation of all conflicts and wars can be realized immediately, the Arab region cannot achieve the SDGs by 2030 using traditional methods. Those Arab countries that have experienced severe damage and deep disarray in physical and social infrastructure over the past years, have largely decimated the prospects even for re-establishing the status quo prevailing in 2010, let alone achieving the SDGs by 2030.

AFED ninth annual report recommends an alternative approach, based on integrating principles of sustainable development within the anticipated rebuilding efforts. The report calls upon local, regional, and international aid organizations not to limit their efforts to providing safety and basic necessities to those affected, but to use the relief plans as launch pad for promoting new approaches to development, rooted in a transition to green economy.

The report further calls upon national and regional development funds and finance institutions to direct their support to projects which help realize the sustainable development goals and targets, both at the public and private sectors levels.

Boosting the prospects of making steady progress towards the SDGs in the Arab countries will depend, largely, on adopting national development strategies with full recognition of the inseparable links between the social, economic, and environmental dimensions of sustainable development, including giving due consideration to unlocking the developmental benefits of cooperation and regional integration. Arab conflict countries, however, need to exert extraordinary concentrated efforts for peace building and restoration of political stability in order to establish a post-conflict environment conducive to the implementation of the Post-2015 Development Agenda and the achievement of the SDGs.

A change in the mindset and culture of designing strategies, policies, plans and programs, and their monitoring and assessment, is essential if Arab countries are to achieve sustainable development and address the major challenge of water scarcity and aridity, aggravated by climate change. This can be best achieved by embracing the water-food-energy nexus approach. Adopting an integrated methodology to policy making is a necessary requirement for achieving sustainable development. This should be supported by a package of regulatory and market-based measures, including fiscal and tax systems which promote mobilization of domestic resources and better consumption and production practices, in addition to revamping subsidies to put price on natural capital and boost efficiency.

AFED report recommends greening the financial system to promote investment in human capital, natural capital, and adequate infrastructure. This includes creating the suitable conditions to attract private sector investment in a direction which helps achieve the SDGs. Arab countries can attract more funding from development financing institutions by orienting their development strategies towards the Sustainable Development Goals, and setting their priorities accordingly in a sequenced manner, based on well-prepared and feasible development operations and projects. However, adopting a transparent, accountable, and participatory approach is a necessary requirement for achieving this end.

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Notes

1. Source: International Labour Organization, Key Indicators of the Labour Market database. World bank 2015, World Development Indicators, http://data.worldbank.org/indicator/SL.UEM.1524.ZS (Accessed June 2016).

2. The report was jointly prepared by the League of Arab States, the United Nations Organizations members of the Regional Coordination Mechanism (RCM) and the Regional United Nations Development Group for the Arab States, and coordinated by the Economic and Social Commission for Western Asia (ESCWA).

3. The Arab region is divided into four sub-regions according to similarities in their characteristics and in concordance with the previous Arab MDG reports. Mashreq: (Egypt, Iraq, Jordan, Lebanon, Palestine and the Syrian Arab Republic). Maghreb: (Algeria, Libya, Morocco, and Tunisia). The Cooperation Council for the Arab States of the Gulf (GCC): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. Least Developed Countries (LDCs): the Comoros, Djibouti, Mauritania, Somalia, the Sudan and Yemen.

4. The World Bank has updated the international poverty line to $1.90 as of October 2015 (see www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq). However, data for the Arab region based on the new line is not available.

5. The CG institutions include: Abu Dhabi Fund for Development, the Arab Bank for Economic Development in Africa, the Arab Fund for Economic and Social Development, the Arab Gulf Program for Development Organizations, the Arab Monetary Fund, the Islamic Development Bank Group, the Kuwait Fund for Arab Economic Development, the OPEC Fund for International Development (OFID), the Qatar Development Fund, and the Saudi Fund for Development.