

Policy Briefing

Towards a sustainable development of arid areas: Assessments, Challenges and Opportunities

KEY MESSAGES

- ❖ Arid et semi-arid ecosystems of the Middle East and North Africa Region (MENA) are characterized by ***austere weather conditions*** and are subject to considerable natural, anthropogenic and environmental ***pressures***.
- ❖ The degradation of these ecosystems is the physical manifestation of ***major underlying phenomena***, including: uncontrolled urbanization and poor urban planning; breakdown of social structures in charge of water management and abandonment of traditional irrigation systems; appropriation of grazing areas for conversion into agricultural land; weakening of social capital and relationships of community-based solidarity mechanisms; and human capital challenges linked to high illiteracy rates and low level educational and technical qualification.
- ❖ In a new ***integrated territorial approach***, renewed investment is needed for agriculture, pastoralism, handicrafts, mining and tourism in the region, through activities with the potential to become ***true levers of sustainable development***.
- ❖ At short, medium and long term, ***three essential pillars*** of local development need to be strengthened, namely: (i) sustainable agriculture or agroecology; (ii) eco-tourism; (iii) social and solidarity economy. Through enhanced investments in these domains, desert areas would become ***unique intermediate places*** offering a quality environment for habitation, work and leisure.
- ❖ The principle of ***territorial competitiveness*** - through its different social, economic, and environmental dimensions - emphasizes the capacity of local institutional actors to value their environment, act together, create inter-sectoral links, and be integrate into existing territorial networks by retaining optimal added value.

ASSESSMENTS AND CHALLENGES

The arid regions of the Middle East and North Africa Region (MENA) face today a number of new and emerging challenges. These regions are characterized by austere weather conditions and are subject to considerable pressure related to climate change, the environment, a rising population accompanied by growing urbanization, and changes in rural economic activities and exploitation of natural resources.

Climate change

- Based on the scenario of a global increase in average temperature of 2 ° C over the next decades, the MENA region would experience a warming of 1 to 3 ° C. This would result in a sharp accentuation of aridity and a steep rise in sea level, significant decline in agricultural production (particularly after 2050), increased use of water resources and a decline in productivity of main crops.

Demography

- Population growth has a growing impact on farming systems and animal husbandry practices. This causes, inter alia, a gradual shrinking of grazing areas, a growing abandonment of seasonal nomadic pastoralism and its replacement by a sedentary or semi-sedentary agro-pastoralism.

Urbanization

- Over the past two decades, the region's average annual urban growth rate was around 4%. More than 55% of the total population lives in urban areas and - according to World Bank projections – this is expected to exceed 75% by 2050 (compared to an average of about 55% for all developing countries).
- The uncontrolled proliferation of urban areas and weak urban planning have adverse effects on the living conditions of urban populations (sanitation, drinking water, sewage disposal, etc.), and result in the loss of agricultural lands and fragmentation of rural areas, as well as seriously threatening biodiversity.

Agricultural lands and grazing areas

- The encroachment of agricultural activities on rangelands has significant impact on production systems and local livelihoods.
- Individual appropriation of agricultural lands encourages the emergence of private gardens and some large farms, with heavy reliance on water pumping especially in shallow aquifers, which are sources of traditional irrigation systems.

Water

- The abandonment of traditional irrigation systems and the rapid development of the small hydro-power (pumps) in connection with the process of privatization of collective land lead to the individualization of water management.
- New agricultural dynamics are accompanied by the construction of new pit irrigation open channels or pipelines (*seguias*) and intensification of the irrigation network. This causes an increase in levies in the wadis, the development of new market-oriented tree crops (apple, almond, pomegranate, fig and olive trees, in addition to vegetables) and hence a considerable reduction in the level of groundwater.

Local capital

- The loss of social capital leads to the disappearance of self-help and solidarity mechanisms at local level, weakens the associative fabric, and limits the possibilities of collective economic dynamics. Producer groups and cooperatives are failing to achieve sufficient economic profitability.
- Finally, human capital is subject to constraints related to high illiteracy rates and low levels of educational and professional qualification

“Poor people are disproportionately affected by climate change ... especially because they have fewer resources and receive less support from family, community, the financial system, and even social safety nets to prevent, cope, and adapt” (World Bank, 2016)

OPPORTUNITIES

Within the framework of an *integrated area-based approach*, a new dynamic is needed for agriculture, pastoralism, handicrafts, mining and tourism in the arid areas of the MENA region, through the implementation of activities that have potential to become *real levers of sustainable development*.

At short, medium and long term, this will strengthen the **three essential pillars** of local development, namely:

- ✓ **Agroecology**, focused on sustainable and environmentally friendly, economically viable and socially acceptable farming². Agro-ecology emphasizes respect for territorial specificities and the improvement of local livelihoods: it is a way to capitalize territorial specificities, value local products and improve social and economic conditions of the population.
- ✓ **Social and solidarity economy**, centered on partnership and co-operation between local authorities, the private sector and local communities in the development of agriculture, sustainable tourism, solidarity trade and crafts.
- ✓ **Sustainable eco-tourism**, centered around the development and protection of natural and cultural heritage - both tangible and intangible - to develop and protect it, and generation of income for the local population. This involves, among other things, tourism based on specific measures to respect and preserve the natural environment and to protect cultural values and local livelihoods.

« *The social and solidarity economy is a concept that refers to enterprises and organizations - in particular cooperatives, mutual benefit societies, associations, foundations and social enterprises – which specifically produce goods, services and knowledge, while pursuing economic and social aims.*» (International Labour Organization)



In this integrated territorial approach, a "territory" is considered as the support of identities, based on organizational, management, and administrative practices favoring local community ownership.

The principle of **territorial competitiveness** aims at providing local institutional players with the capacity to enhance their environment, act together, and create inter-sectoral links, while remaining integrated into existing territorial networks, in order to retain optimal added value locally.

DIMENSIONS OF TERRITORIAL COMPETITIVENESS

In each territory, four dimensions of competitiveness are combined together:

- Social competitiveness concerns the capacity of local stakeholders to effectively act together on the basis of a shared vision, with support at different institutional levels.
- Environmental competitiveness refers to the ability of actors to develop their environment by making it a "distinctive" element of their territory, and ensuring the conservation and renewal of natural resources and heritage.
- *Economic competitiveness* is the capacity of stakeholders to create and retain maximum added value in their territory, by strengthening inter-sectoral links and considering their combined resources as assets to enhance the specificity of local goods and services.

- Finally, with respect to *the positioning in the global context*, competitiveness is the capacity of stakeholders to find their place in relation to other territories, at local, regional and national levels.

[Source : LEADER, 1999]

CONCLUSION

Until very recently, the development of arid ecosystems consisted mainly in the use of land and natural resources. Completely missing was any accompaniment or technical monitoring aimed at improving systems and the quality of production.

The approach is currently experiencing a profound change. The growing importance of social and environmental safeguard policies and the mandatory integration of environmental parameters into economic policies is leading to the identification of **a prominent place to arid ecosystems** in the path towards sustainable development.

Each ecosystem has specific characteristics and potential. It is from these characteristics that an integrated area-based development process should be designed, within a paradigm where regional and local actors play a **central role**. This implies, inter alia, knowledge and use of local strengths and weaknesses, a capacity for innovation, and the establishment of structures conducive to sustainable development initiatives.

In order to develop, the arid areas of the MENA Region should be considered as **specific, attractive economic area**, complementary with surrounding economic areas. Arid ecosystems are wealth producing areas, which can be defined through the uniqueness and particularity of their products.

« Integrate economically integrate lagging and leading regions: a dual challenge of balancing spatial outcomes with economic efficiency » (World Bank, 2014)

To strengthen complementarity between the different dimensions of territorial competitiveness, it will be imperative to: (i) make better use of all the resources of desert ecosystems; (ii) diversify products and services; (iii) explore more profitable market segments; and (iv) enhance the performance of production units. These **four lines of orientation** correspond to **four general objectives**, which complement each other.

As a first step, two types of preliminary analyses can be considered: (i) **an analysis of constraints and existing shortcomings**, as well as ways to overcome them and turn them into assets generating capital gains; and (ii) **an analysis of potential actions and operations**, which are likely to reposition arid ecosystems on the economic scene.

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This Policy Briefing is partially based on the following documents prepared within the context of the MENA-DELP Project : Ahlafi A. (2013) *Identification des potentialités et perspectives de développement pour les Régions désertiques* ; and Benmecheri S. (2014) *Développement du secteur touristique dans les zones désertiques*.

These documents are available on line on the MEA-DELP/OSS Web site.

