

This brief series was developed in preparation for the Foresight Breakout Session of the Global Conference on Agricultural Research for Development (GCARD 2012) and the Global Foresight Hub<sup>1</sup>. The briefs were written to communicate to a wider audience, such as policy makers, civil society organizations, researchers, and funders. The briefs were classified into three categories: Future Studies, Regional Update, and Visioning.

## Agriculture 2030: A future for Morocco

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Based on: Haut Commissariat au Plan. (2007). Prospective Maroc 2030, Agriculture 2030: quels avènements pour le Maroc? HCP.

*“Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand.”* Albert Einstein, cited by Jon Whale in “The Naked Spirit,” p 214.

### Agriculture 2030: from diagnosis to scenarios

The “Haut Commissariat au Plan” (High Commissariat for Planning - HCP) initiated a foresight study called ‘Agriculture 2030’ and conducted this work in association with the General Council for Agricultural Development (CGDA). The objective was to raise relevant questions and provide knowledge that would spur decisions leading to long-term social and economic development. This foresight focused on agriculture, due to its central role in Morocco and the great uncertainties about its possible evolution in a rapidly changing country and world. The work was not confined to technological issues; it considered all links with the national economy and society, with policies, with the diversity of the territories, and with the local and global environments.

The document ‘Agriculture 2030’ explored three scenarios: surrendering to liberalization, accelerated liberalization, and mastering liberalization. At the time of releasing the final report, in September 2007, the world food crisis had started, deeply affecting the country. A few months later, Morocco adopted its new agricultural strategy, the “Plan Maroc Vert” (Green Morocco Plan). The Plan relies on two pillars supported by structural reforms: the invigoration of high value adding, productive farming systems and agro industry, and the development of small-scale agriculture in unfavored areas, built on solidarity through local involvement of beneficiaries organized in cooperatives or associations.

Agriculture in Morocco: state and challenges. In the past 45 years, agricultural production has tripled in constant value. It still contributes 15 percent of the gross national product and has an important and growing multiplying effect on the rest of the economy. Almost half (46 percent) of the active population works in the agricultural sector. How agriculture evolves will determine the stability and well-being of rural society and of the country as a whole. Agriculture carries values, know-how, landscapes and diversities which are at the heart of the country’s patrimony.

Yet, productivity per capita and per hectare is one of the lowest in the region. The trade balance is negative. Production varies irregularly and there are signs of growth slowing down.

Agriculture had always been able to adapt to its environment, but now it is becoming a source of environmental degradation (water, soil, eco-systems) whose negative effects have not yet been fully understood. Water is becoming scarce, droughts more frequent. Vicious circles of unsustainable development are occurring (lack of capital and innovation, poverty, low productivity, resource degradation, further poverty...). Diversification of the rural economy remains limited, with few opportunities for non-farm employment; a subsistence economy endures.

<sup>1</sup><http://www.egfar.org/our-work/shaping-future-together/global-foresight-hub>

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In today's complex and rapidly evolving world, Morocco displays several troublesome vulnerabilities. Micro farms and landless rural households make up 40 percent (5.5 million) of the rural population, but they own only 5 percent of irrigated lands and 8 percent of cultivated lands. Farming is only part of their income. Temporary migration of the rural youth to urban centers and remittances they send home complement their income. Yet, agriculture still plays also an essential social role, giving some basic security, anchoring population to the rural areas and avoiding further migration to cities. If this "social" agriculture disappeared, resulting increments in the size of the farms acquiring released lands would be limited while the cost of the reconversion of million people could be considerable.

The document 'Agriculture 2030' highlights the 750,000 small and medium farms whose development is a key condition for agricultural and rural progress. But most of them still have insufficient access to markets, credit, incentives and technologies. However, with appropriate support, these farms, which have enough land, water and labor force, can become viable "enterprises".

Another challenge is food security. Morocco needs to develop its agro-industry, rationalize its allocation of resources and optimize opportunities in international trade through more aggressive strategies promoting high-value products. However, environmental stress, fossil fuel shortages, biofuel development, population growth and dietary changes are making the country's future international environment highly uncertain. Global food prices and food shortages over the long term are possible. Morocco would thus have to maintain a significant level of agricultural production, which might be incompatible with the full liberalization of its agricultural trade.

**The roots of vulnerability.** Agriculture in Morocco has a dual aspect with the co-existence of a modern and productive agriculture, mainly located in irrigated and favorable areas and a more traditional subsistence-oriented agriculture in less favored areas including mountains and oasis. For the past 50 years, public policies have focused on building large structures for irrigated agriculture (for example, large dams), largely ignoring the diversity of agricultural development and its fundamental links with rural development and sustainability. The policies did not address enough human capital issues; they did not mobilize, entrust, support actors and their enterprises.

Such policy moves did not properly address low professionalization of small-scale farming, delayed rural development, lack of capital, enduring market distortions, disputable governance decisions, standard approaches overly relying on technologies, weaknesses of local institutions, tenure imbalances, and a marginal role for credit in transforming agriculture.

Import-substitution policies are currently being challenged (because they led for example to substitute cereals adapted to dry areas by less suitable wheat). Distortions and lack of competition have favored rent-seeking behaviors. Political will is not yet at the level of the stakes that new strategies, such as "La Stratégie 2020 de développement rural", the first of its kind in the Mediterranean South, intend to address.

**Drivers of change and long-term trends.** Key drivers of changes are climate change, technologies, globalization, trade liberalization and commitments to sustainable development, regional cooperation policies and governance. Key trends relate to the internal evolution of the country (demography, economy, lifestyle) and their implications on the demand for food, land and water. They also relate to the evolution of consumption patterns worldwide. Morocco still has a lot of room to maneuver with respect to its evolving environment. How policies manage liberalization will be a decisive factor. The country could either suffer from rapid changes or anticipate them and act proactively to reduce negative impacts and exploit potential benefits.

New constraints	New opportunities	New challenges	New uncertainties
Climate change	New agriculture (professionalization, high-value products, integration)	Resilience, ecosystem services	World capacity to limit amplitude and impacts of climate change
Competing with high productivity levels elsewhere, new rules imposed by macro actors (supermarkets)	A new rural way of life	Productivity and quality, value chains	Amplitude and impacts of diseases (human, animal, plants)
Simultaneously facing climate change in a context of high population growth and rural poverty	Sustainable development revolution: innovations (technologies, institutions, governance)	Integrating small and medium farms in the new agriculture	Outputs of WTO negotiations
	New roles of the State, private sector and civil society	Creating on-farm and off-farm employment	Solidarity based on the agricultural complementarities in the Euro-Med region
		Avoiding territorial divide, integrate fragile rural areas, diversify rural economies, keep social cohesion and eradicate poverty	Acceptability and impacts of GMO
			World food scarcity
			World prices (energy, transports, commodities)

## **Surrender, speed up or master? Three scenarios for 2030**

The High Commissary to the Plan and the President of CGDA decided on three scenarios. Further exploration of these scenarios required several meetings with high-level staff of the HCP, followed by an expert meeting that included foreign foresight specialists. The Ministry of Agriculture and the High Commissary presided over a large-scale national workshop to present and debate the final version of the study. The three contrasted scenarios describe possible evolutions and futures, as well as detailed effects of various events and options.

**Surrendering to liberalization.** Liberalization occurs as planned by the existing free trade agreements, and national policies in Morocco remain reactive. Changes in climate, lifestyle, and water usage conflicts are not anticipated. Distortions are not corrected and institutions barely evolve. Agriculture does not take off, and rural and territorial development policies remain weak. Environmental degradation increases. Water usage remains inefficient, leading the country into a water crisis. Desertification expands, causing dam silting. As a result, growth in agricultural production becomes even more volatile. Non-agricultural employment opportunities in rural areas remain minimal. Duality in agriculture widens, with growing inequality and rural poverty. The agricultural sector regresses, resulting in massive rural migrations and fuelling potential urban and political instability.

**Accelerated liberalization.** Liberalization speeds up (as in Mexico) through ultra-liberal policies and social safety nets. Agriculture is only valued for its capacity to produce commercial goods and the global market ensures its competitive insertion. Morocco decides to remove protection on cereals and red meat. Reforms make less profitable sectors disappear. Sustainability is not the priority and there are no policies for rural and territorial management. A social safety net reduces the impact on the “losers” from the liberalization process. State withdrawal favors the emergence of a highly capitalistic agriculture, making productivity gains along with a concentration of land tenure. Accelerated liberalization leads to geographic concentration of production in the most favorable areas and a dead-end in less favorable ones. Agricultural population decreases dramatically. Strong migrations force the State to re-consider its urban growth plans or to contain people in rural areas through social policies. The cost of these policies would divert public funds from productive investment, or even exceed available resources. More than 300,000 hectares of good-quality peri-urban agricultural land would be lost to urbanization and infrastructure. A water crisis would also occur.

**Mastering liberalization.** Liberalization is managed as a progressive process, and a new agricultural and rural pact aims to make a transition toward a diversified rural economy and a pluralistic, competitive and sustainable agriculture. Agricultural policies become more adaptive correcting market and governance failures in light of social, environmental and territorial challenges.

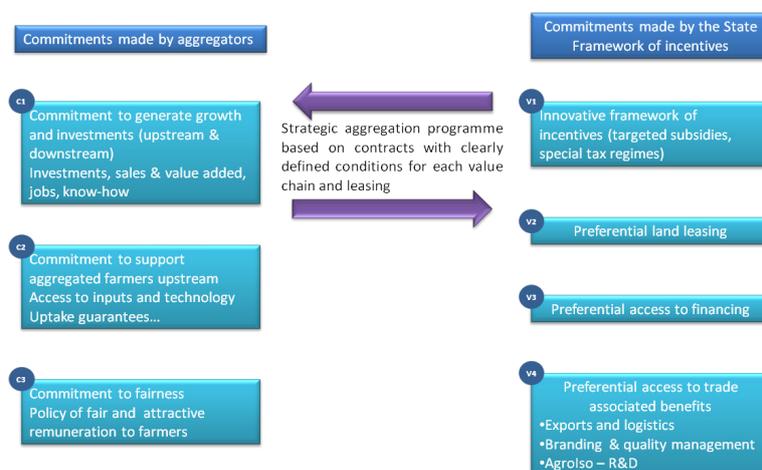
The opening of agriculture, with some exceptions, becomes more aggressive over time, based on progress made. This scenario starts with an upgrading of agriculture. Structural reforms (land tenure, credit, support to young farmers) accompany specific measures for each value chain and for small and medium farms in order to reduce the number of losers from the globalization process. A pluralistic agriculture develops. Capitalistic farms integrating social and environmental responsibility expand in favorable area, a high value-added agriculture develops locally in mountain, hills and oasis areas. Less favorable areas receive incentives and subsidies in order to maintain farming activities that play a social role and contribute to landscape management. Water is valued through more efficient and saving practices (water demand management), increasing up to 80 percent the added value created per cubic meter of water used. Rural development is at the heart of this scenario. Rural infrastructure development (such as roads, water, electricity) is complemented by eradication of rural illiteracy, professionalization of small and medium farms, and building capacity of young agricultural leaders. These actions create a new relationship between citizens and the administration, which relies on local communities for the development and creation of local jobs and income. Benefiting from international aid, these actions contribute to reduce poverty and restore public goods. Inter-ministry coordination and decentralization help better distribute agro-food industry and tourism development across the country. Urbanization policies favor rural diversification, targeting the development of rural towns and small urban centers with 3,000 to 5,000 habitants, thus bringing cities to the countryside. The agricultural population decreases reasonably but rural population increases, reducing migration to coastal areas.

## From Agriculture 2030 to the Plan Maroc Vert

Agriculture 2030 foresight provided a basis for the elaboration of the new agricultural strategy, whose name, le Plan Maroc Vert, reflects all hopes Morocco places in the development of its agriculture.

The Plan Maroc Vert relies on two pillars supported by structural reforms: the invigoration of high value-adding, highly productive farming systems and agro industry through an aggregated model; and the development of small scale agriculture built on solidarity in unfavored areas. Structural reforms in the Plan target land tenure policy, water policy and the development of regional agro-tech platforms. They also focus on institutions and governance, especially through the creation of the Agricultural Development Agency, which is in charge of: (1) monitoring the implementation of the new agricultural strategy; (2) linking with private or social investors; and (3) promoting and managing the implementation of the aggregated model, providing linkages between the different partners.

The first pillar is based on the creation of agricultural and agro-industrial poles. An innovative model aggregates farms to overcome the constraints of land fragmentation and to ensure access to modern technologies, investment and markets. Massive investments support new actors with strong management capacities. Clusters of Economic Interests optimize industrial structures and develop public and private joint ventures and inter-professional groupings. For this purpose, Morocco launched a first Offre Maroc, which consists of win-win public-private partnerships based on clear contractual agreements as depicted below:



The core of the second pillar is to modernize small-scale agriculture on solidarity by improving productivity and orienting farms toward promising production opportunities. It is based on government intervention to develop local dynamic entrepreneurs anchored in on the participation of local communities and organizations and to value territorial assets through better access to markets (local, national, international) of profitable value chains (labels of geographic origin). This will help reduce poverty at its roots and will maintain a rural-urban balance. A second Offre Maroc develops a large portfolio of projects targeting national or foreign social investors.

Agriculture 2030 contributed to various points of the Plan, in particular:

- Awareness of the strategic (multifunctional) importance of agricultural stakes for the country
  - New policies targeting the preservation of the basic resources required for agriculture, in particular water (large-scale water saving programme)
  - Moving out of a dual agriculture pattern and supporting small-scale agriculture in marginal areas
- Stakes related to territories and their products (for example, new laws on labels of origin and their implementation mechanisms)

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