



MOROCCO AGRICULTURAL COMPETITIVENESS ASSESSMENT REPORT

July 24, 2012

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ACRONYMS

AFD	Agence Française de Développement (French Development Agency)
IFAD	International Fund for Agricultural Development
MEC	Morocco Economic Competitiveness (USAID current project)
MP3 Program	Morocco Agricultural Partnerships for Productivity and Prosperity Program for exports of medicinal plants 2005/6 – activities subsumed under the IAA program.
ONSSA	Office National de Sécurité Sanitaire des Produits Alimentaires
UN	United Nations
FAO	Food and Agricultural Organization of the United Nations
AMP	aromatic and medicinal plants
CAM	Crédit Agricole du Maroc (Morocco Agricultural Credit Bank)
EACCE	Etablissement Autonome de Contrôle et de Coordination des Exportations (Establishment of Autonomous Control and Coordination of Exports)
IAA	Integrated Agriculture and Agribusiness (USAID 2005 -2010)
IMF	International Monetary Fund
INDH	Initiative Nationale de Développement Humain (National Initiative for Human Development)
INRA	Institut National pour la Recherche Agronomique (National Institute for Agricultural Research)
MAMF	Ministry of Agriculture and Maritime Fisheries
MCI	Ministry of Commerce and Industry
NES	not elsewhere specified
UAE	United Arab Emirates
US	United States
USG	U.S. Government
USAID	United States Agency for International Development
USDA/FAS	U.S. Department of Agriculture/Foreign Agricultural Service

TABLE OF CONTENTS

Acronyms	i
Table of contents	i
Executive summary	1
Introduction	1
Background.....	1
Government Policy.....	1
Agricultural production and trade	1
Donor Programs in Morocco: 2006-10	1
USAID programs, mechanisms, priorities.....	1
Cooperatives	2
Irrigation.....	4
Marketing and Export promotion.....	5
Value chains	6
Extension agents	6
Credit for Agriculture and Agribusiness	7
Government functions.....	7
Recommendations	1
Appendix A. US Government Assistance to the Moroccan Agricultural Sector	4
Appendix B. Checklist prior to introducing usaid programs	1
Appendix C. Bibliography of main written sources consulted during evaluation and assessment...	1

EXECUTIVE SUMMARY

Morocco has strong agricultural export sectors shipping fruits, vegetables, olives and other products to the European market and other major markets like the United States and Russia. The country has a diversified economy: agriculture in Morocco constitutes only 15 percent of GDP, but employs 40 percent of the country workforce and supports 44 percent of the population. The gap between rural and urban incomes in Morocco is more pronounced than among other countries of the region and worldwide in countries with average income levels similar to that of Morocco. Consequently, helping poor farmers is a high priority for Moroccan Government programs. It is one of two main focus areas under the Green Morocco Plan of 2008.

Morocco has entered free trade or similar agreements with the US, Europe, the UAE, North Africa and other regions that provide new or expanded export opportunities for fruits, vegetable, olives and other products. However, imports create increasing competition to domestically produced agriculture products like tomato paste, fruit juice and dairy products, which increases as customs duty reductions are phased in.

Increasing concerns with drought have led to major changes in irrigation systems. Recent changes include conversions to drip irrigation and experiments with diverse payment methods for water. Increased competition on the world and domestic markets led to massive programs to assist increasing the competitiveness of local agriculture. These programs include getting farmers in marginal areas to switch from wheat to olives, search for areas of competitive advantage in export markets, and eschewing ideas of achieving self-sufficiency in products like wheat in favor of products that can help raise farm income and promote investment, competitiveness and exports by the private sector.

The latest Moroccan government agricultural policy is outlined in the Green Morocco Plan for 2008 to 2020. The policy seeks to foster competitive agriculture of the modern sector (Pillar I of the Plan) and address issues of the large number of poor farmers (Pillar II). The Government has programs to substantially subsidize consumer prices, programs for improved seeds or seedlings, and for investment and export activities. The government has undertaken a major refocusing of activities in agriculture, changing from central control to regional initiatives with a number of regional agencies working to launch programs and help farmers.

Another key concept of the Green Morocco Plan is to use a major market player, called an “aggregator,” to help small farmers in a win-win relationship. The idea is to find areas where an existing powerful market player, like a big processor or trader for example, can be encouraged and convinced to reach back to farmers to improve their efficiency and incomes. In the past, small farmers have sold at low prices to intermediaries, who resold the products to large processors or exporters. This large marketing player, in the Green Morocco Plan, would have marketing, technical and financial power and expertise. The Plan suggests that some of these market players can be encouraged to help small producers and/or their cooperatives or associations add value via better production and post-harvest methods. The idea is that improved product delivered by farmers to the large market player would be more valuable to the aggregator in some sense, such as quantity, quality, timing, reliability, traceability back to the supplier, etc. The Plan is that both the aggregator and the farmer would benefit from the added value at or near the farm level, and farm income would increase, resulting in an enduring win-win relationship. This type of win-win cooperation is very similar to ideas presented by USAID-financed value chain seminars such as those offered by the IAA project. It differs from traditional supply chain concepts by putting more emphasis on improving returns for farmers by adding value (rather than, for instance, seeking to shift income from one value chain player to another). USAID programs

and their “value chain” focus have had a major influence on government planning and programs, particularly in the Green Morocco Plan.

USAID has spent about \$2B on various programs linked to agriculture since 1957. However, the current level of USAID programs in agriculture is less than \$6M per year – much smaller than the programs of other major donors. In spite of USAID’s substantial expertise across a wide range of agriculture and agribusiness-related topics, it is a challenge to find areas where USAID can launch meaningful programs with lasting impacts.

This report describes the current situation in the major areas of agricultural production, exports and imports, and discusses the challenges and opportunities in these areas. It also lays out possible areas of focus for technical assistance such as cooperatives, credit, extension services, value chain activities and government policy. A checklist of elements to consider when launching new USAID projects is provided. It is suggested that advance planning and interaction with local partners prior to finalization of a new five-year value chain project may encourage joint contribution of resources and lead to more effective, durable projects. This report also suggests that USAID can continue to play a major role in determining the needs of the private sector and convincing Moroccan government agencies to respond to those needs as it seeks to develop competitive agriculture.

INTRODUCTION

USAID contracted with Development and Training Services, Inc. (dTS) to conduct an evaluation of the Integrated Agricultural and Agribusiness Program of 2005 – 2009. dTS was also asked to prepare a separate report on the competitiveness of Moroccan agriculture and priorities for USAID activities in the future. The dTS evaluation team conducted the evaluation during the period of April – July 2012, including a visit to Morocco to conduct key informant interviews and collect data. During the trip, the team gathered information, met donors, target program beneficiaries and stakeholders (government services, sheep meat, olives, berries, capers and rosemary producers and traders). The team asked key informants about priorities for USAID programs – where they thought USAID should intervene if it conducted more activities in their sectors. While an exhaustive review of agricultural opportunities, the competitiveness of each sector, and evaluation of the competitive position was not possible within the time and resources provided for this evaluation, the team is able to make some pertinent observations based on discussions with various stakeholders in Morocco, a review of available documents, and experience elsewhere in the Middle East, Africa and Asia.

The team included:

- Tom Pomeroy, Team Leader
- Mohammed Bajeddi, Agricultural Expert
- Abdelkader Haddioui, Senior Researcher
- Anass Homane, Junior Researcher
- (dTS home team: Karen Dawes, Oleksandr Rohozynsky, Avinesh DeSilva).

Morocco needs technical assistance in a number of areas, but the USAID focus on agriculture seems logical, given the demographic and income profiles of the rural population. Forty percent of the Moroccan workforce and 44% of the population is involved in farming. The difference between urban and rural income is more pronounced than in other countries of the region. Technical assistance in agriculture helps keep people on the land and raise incomes. The alternative is the accelerating movement of rural populations to cities, which would pose substantial challenges, risks and costs to the current demographic and economic environment.

Moroccan agriculture has several specific characteristics that are easily observable in the information on production and trade:

1. Agriculture represents only about 15 percent of Morocco's economy. Agriculture is very important because there are many poor people and a large percentage of the population is involved in agriculture.
2. Morocco is not excessively dependent on foreign currency earnings from exports of agricultural products. It is also not excessively constrained by food import costs; it has other important sectors that earn foreign currency including tourism and other services, manufacturing, mining and remittances. However, there are substantial opportunities for expanded exports of agricultural products to Europe, the US and other countries.
3. USAID has special knowledge, skills and linkages that could play an effective role in helping Morocco's agricultural sector become more efficient.

Given the specifics of the country's agriculture and the importance of the agriculture sector for USAID programming in the country, the evaluation team was tasked to explore the following questions:

1. What are the priorities of the Government of Morocco in developing agriculture sector?
2. What regulatory changes would improve Morocco's competitiveness?
3. What are other donors doing?
4. What are special needs where USAID may have special capabilities?

This report looks at the main sectors of agriculture production and trade in Morocco, and reviews the challenges and opportunities faced by other donors providing technical assistance in this area. The report discusses opportunities for USAID intervention, including a discussion of the pros and cons of alternative activities. It also suggests a methodology for finding the highest priorities for intervention.

This report cannot accurately predict whether the clementine market will continue to grow, whether new, more competitive varieties of raspberries, strawberries or blueberries will be developed, or whether competition from Turkey in capers will damage export marketing prospects, but it does examine the key questions and key capabilities of the sectors to give an indication of potential areas for USAID assistance. It also suggests questions to ask in order to find areas where USAID can make a difference.

BACKGROUND

Agriculture represents about 15 percent of the Moroccan Gross Domestic Product (GDP), varying annually. It also employs about 40% of the country's workforce, and supports 44 percent of the population. According to the Ministry of Agriculture, in 2009, the country had 1.5 million farms producing cereals, potatoes, olives, citrus and a number of fruits and vegetables. Some of these products are actively exported. About one million farmers have livestock (chickens, sheep, goats, cows). These farmers produce products that are consumed primarily within Morocco. Small farmers predominate – over 50% have less than 3 hectares of land; about 43 percent have 3 to 20 hectares, four percent have 20 hectares or more, and only 0.7 percent have more than 50 hectares.

Although Morocco's 32 million people have an average per capital income of \$4,593 (purchasing power parity, equal to \$2,073 in nominal per capita income), there is large income inequality in the country. According to the World Bank, in 2008 the richest 20% of the population received 47.9 percent of the income, and the lowest 20% received 6.9 percent. One of the contributors to this gap is illiteracy. In 2009, only 56.1% of adults above age 15 were literate. According to the World Bank, the gap between the rural poor and the urban population is more pronounced than in other countries of North Africa, the Middle East and other countries with an average income level similar to Morocco¹. Consequently, the government has been very concerned to provide some help to small farmers.

Generally, while recognizing the value of private sector activities and helping some of the big companies that dominate some export sectors, the government also seeks to intervene with subsidies and regulatory policies to bring about change and increase incomes for small farmers. Government subsidies cover many activities related to the improvements in agriculture, such as the construction of water basins to store water, digging wells, irrigation material and clearing rocks from land. It also subsidizes the purchase of equipment, such as tractors, cold stores, olive pressing equipment, and the acquisition of certified seeds and seedlings for cereals and olives. Finally, it provides subsidies for breed improvement for sheep farmers, and subsidizes the purchase of animal feed when dry conditions occur.

Government is also developing financial instruments for the agriculture sector. Small farmers generally do not have access to bank credit, but sometimes obtain credit from elsewhere in the supply chain. The IMF² reports that the agricultural sector, which accounts for 13 to 18 percent of the economy, receives only about 4% of bank credit. As noted by a recent OECD report on investment opportunities, small and medium agribusinesses often need credit, but the system does not yet provide adequate credit.³ Government tries to reduce risks of providing credit to the farmers. A recent program has piloted crop insurance for grains to respond to the risk of drought. The government is also trying to set up multidisciplinary and multiagency regional extension offices with soil sample testing and advice to farmers.

¹ World Bank, Document de Programme pour Une Proposition de Prêt d'un Montant de 150 Millions d'Euros, Rapport No 58499-Mor, Version Négociation, Le 3 Février 2011, p. 20.

² 2011 International Monetary Fund December 2011.

IMF Country Report No. 11/341 Morocco: 2011 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Morocco.28, 2011 20.

³ OECD, Compétitivité et Développement du Secteur Privé: Maroc 2010 p 77.

In response to the diverse needs of the agricultural sector, the GOM developed the Green Morocco plan. The Plan has two pillars: the aim of Pillar I is to increase the competitive sector of modern agriculture, and the aim of Pillar II is to help poor farmers. The plan also seeks to address growing pressure from climate change by providing large subsidies to shift from gravity and sprinkler irrigation to drip irrigation. Conversion to drip irrigation may use up to 50 percent less water than traditional methods, and may also reduce the use of agrochemicals, which are applied more efficiently with drip irrigation. Although some major crops like cereals and olives are largely rain fed, there is substantial use of irrigation by small farmers, especially in government-controlled irrigated perimeters. Irrigation systems either use surface water from dams or pump water from boreholes. The Government is concerned about incidences of drought experienced in recent years, sometimes alternating with periods of above average rainfall, as in 2008/9. Some Moroccan and international reports indicate that Morocco is becoming drier over time. This has focused the attention of the government on ways to save water, like providing subsidies to shift from gravity or sprinkler irrigation to drip irrigation.

Morocco's proximity to Europe and well developed transport provides excellent marketing opportunities for some products such as fruits and berries. Many of them are permitted into Europe under seasonally adjusted duty preferences. Europe has been Morocco's main export market for a long time. Moroccan exporters have sought to adopt certification programs that meet European requirements like HACCP, Global Gap, British retail certifications, fair trade, organic or other certifications, and traceability of products back to the farm.

Morocco has also been exploring and expanding markets in the US with substantial shipments of clementines, olives and olive oil. It also hopes to expand the export of branded products and fruits to Russia, which has less stringent requirements than the EU.

Morocco is faced with new export opportunities and new competitive challenges as provisions of free trade agreements with Europe and America are gradually phased in. In response, the country, buttressed by substantial donor funding, is seeking to promote the competitiveness of private sector agriculture. At the same time, it is maintaining and expanding a myriad of government efforts to promote production, investment and exports. Some government programs in the form of subsidies are targeted to the poorest farmers, seeking to increase their incomes from marketable crops and livestock.

Through USAID and other programs, the US Government has been supporting efforts of the government of Morocco to improve the agriculture sector. Recent USAID-supported programs include the recently completed Integrated Agriculture and Agribusiness (IAA) program with a budget about \$14.8M and the ongoing, 4-year Morocco Economic Competitiveness (MEC) program with a budget \$23M, providing technical assistance in agriculture and other sectors. This is a small fraction of programs offered by the MCC, the World Bank or the EU. However, the USAID programs are more flexible and sometimes more effective than some of the European or multinational programs. The US also has a wealth of experience and many valuable resources in US businesses, universities and government institutions to support agriculture and agribusiness that USAID can access to provide Morocco a helping hand and achieve a meaningful impact.

GOVERNMENT POLICY

The Government of Morocco has recently been re-evaluating and revising its agricultural policy priorities, reorganizing government services and launching many new initiatives. From 1956 to 2001, Morocco had a series of agricultural efforts – building dams and expanding sprinkler and gravity irrigation, confiscation of land from French “colonists” and redistribution of some of it to the poor, and the sale or leasing of other public land to the private sector. Prior to a re-evaluation of priorities beginning in 2002, they made attempts to diminish large imports of cereals by fostering local production, no longer as high a priority. Beginning in 1985, the government started to focus on encouraging private sector development. In 2002, authorities launched a new “2020” strategy of rural development, including privatization of some of the parastatal organizations and movement of many development activities to the regions. In 2008, they moved to the Green Morocco Plan – a mix of encouraging modern agriculture (Pillar 1) and helping the poor (Pillar 2), moving development programs from the center to the regions, and saving water by converting gravity and sprinkler irrigation to drip irrigation, with ambitious plans to charge farmers for water use. A new set of export promotion policies was established at the same time.

The Green Morocco Plan called for moving many development activities from central control to the regions, and establishing multiagency extension services and cross-value chain partnerships that aim to identify aggregators, like an existing processor, trader or other organization that could be assisted to establish win-win relationships all along the value chain from the farm to the market, in the process helping to raise farm income for suppliers. For instance, an olive exporter visited by the evaluation team sends agents to farms to ensure quality and provide traceability back to the farm, and seeks a long-term relationship with the supplying farmers. Similarly, berry exporters work with cooperatives of farmers to provide planting material and purchase and export the farmers’ production.

In the opinion of the evaluation team, given USAID’s traditional focus on helping the poor, Pillar II of the 2008 Green Morocco Plan – helping poor farmers increase their incomes – may be even more important to USAID than Pillar I (making modern agriculture more efficient). However, helping poor farmers to produce cannot be seen in isolation of the markets where they expect to sell their products and in isolation of competition from others. It would be inefficient to help farmers grow products that they cannot sell for a return worthy of their efforts.

The Green Morocco Plan and related programs also established various subsidies for farmers and agribusinesses to invest in machinery or improved plants, or to shift from wheat to more drought-resistant olive trees. The latter is partially supported by the \$326M USG program under the Millennium Challenge Corporation (MCC) that provides free seedlings for the drought-resistant plants. This program provides a 100% subsidy for planting olive trees, and also subsidizes the planting of almonds, figs and dates. Substantial multilateral and bilateral programs also supported other ambitious government efforts to improve production, value added products, farm income and export competitiveness.

Recent reorganization of government services initiated with the Plan included combining regulatory agencies into a single entity with control over plant protection, animal health and food safety. The new policies also seek to establish new and more effective multi-agency effort in regions, moving control away from the center and targeted to help with production and marketing.

The agricultural sector in Morocco is still highly protected and controlled by the government. There are protective customs duties and subsidies for local producers in many areas. The state monopolizes exports of

phosphates (a major export), management of dangerous wastes, wholesale distribution of fruits and vegetables, fish and slaughterhouses. Some concessions are granted to private sector companies such as water and electricity distribution, port management, rail transport and waste management. However, foreigners are still not allowed to buy agricultural land in Morocco.

Morocco has diverse sources of foreign exchange. Manufactured goods represent 65 percent of exports and mining 14 percent. Morocco has sells substantial services to foreigners, like tourism and call centers. Services comprise 52% of the economy, including tourism, which accounts for 11% of GDP. Unlike many other countries, there is not much difference for the country's economy if Moroccan agricultural products are exported or sold in the local market. As a result, the government programs targeted to increase the income of the small farmers by adding value to their production will not have a huge impact on the foreign exchange of Morocco or its general economic health. However, it may have a significant impact on social relationships and stability, given the large number of people relying on the agricultural sector.

Focusing on helping poor farmers rather than more efficient sectors may have social and political aspects. Agricultural policy in almost every country worldwide is very political; seldom is it simply a question of production and marketing efficiency. Problems with the poor, if not addressed, could result in population movements or expressions of unhappiness with negative impacts on other important sectors of the economy, such as investment and tourism. The Spanish Embassy in its review of Morocco's agricultural policy and implications for investment noted that the ills of the rural sector – high illiteracy, high infant mortality, and lack of access to public services could lead to social disruption and threaten to destabilize the economic and social situation in the county.⁴ The CIA World Factbook notes that following civil unrest in 2011, Morocco substantially increased subsidies to 5.5% of GDP instead of the 2.1% budgeted; they hope to bring these costs down to 3 percent of GDP in the near future.

Recent World Bank and IMF reports were very complimentary about Morocco's budget and financial situation, but noted the unusually wide gap between the urban sector and the rural poor. Other reports by the Spanish Embassy and OECD have been somewhat less positive. The Spanish Embassy's in-depth investment report pointed out that farmers, including those on irrigated lands, produce at only 30 to 70 percent of their potential. They attribute the low productivity to several factors including inadequate training for rural workers, obsolete marketing circuits, lack of modern techniques, and lack of adequate financing.

The 2010 OECD review of investment opportunities in Morocco noted some important reforms and substantial improvements in infrastructure, including road, rail, introduction of airline competition, recently achieved nearly universal electrification and a public-private partnership that greatly expanded the capacity of ports in Tangier. But the OECD cites World Bank data that demonstrates that, in spite of many recent reforms, at the time of the report (two years ago) Morocco ranked 128 among 183 countries in ease of doing business. There has been some improvement in the two years since the OECD report; Morocco's rank has increased to 94, but some problems cited by OECD remain.

The OECD report pointed out onerous regulations for new investors regarding hiring and firing rules, social charges, contract execution, taxes on profits, access to land, and difficulties in obtaining construction permits. It recommended introducing a single window for the various approvals needed for investors. Several efforts

⁴ El sector de la Agricultura en Marruecos: inversión para empresas españolas agrícolas, Marruecos, Evolucion prevista de la AOD 2007-2011 (Embajada de l'Espagne, Maroc), Institute Español de Comercio Exterior, Embajada de España en Rabat, Agosto de 2010, p 13.

are underway to improve the situation. For example, the USAID MEC program is working on construction permits and business registration. These efforts are currently implemented at the regional level, but the GOM may attempt to scale these up.

The OECD report also points out that small and medium enterprises (SME) represent 30% of production, 46% of employment and 30% of Morocco exports. The OECD report highlights structural weaknesses of SMEs including lack of competitiveness, undercapitalization, weak productivity, limited management abilities, and limited access to finance. Corruption is also mentioned as a problem that needs more consistent strategy and international cooperation, as well as more transparency for public procurement, customs and fiscal measures.⁵

⁵ OECD op.cit. pp 77 – 80.

AGRICULTURAL PRODUCTION AND TRADE

Though it varies by year, Morocco produces enough milk to cover nearly 90% of its consumption needs; cereals that cover over 70 percent of its needs, sugar sufficient to cover half of the needs, and vegetable oil to cover 25% of its internal consumption needs. Agricultural products are imported to cover demand that is not met by domestic production.⁶ The most recent data for major Moroccan agricultural products listed in order of value is presented in Table 1. In terms of the value of agricultural production, olives are by far the most valuable. Olive production is valued at over \$1B, mostly for domestic consumption. Other major products include wheat, poultry and livestock products and fruits and vegetables. Agriculture products that are considered important for the sector, such poultry and other meats, are protected against import competition.

Table 1. The top 22 agricultural products ranked by value of domestic production (FAO stat data)

Product	Value of production (2010 – FAO estimate), \$ Millions
1. Olives	1,188
2. Poultry meat	792
3. Wheat	701
4. Beef	512
5. Tomatoes	472
6. Fresh milk	445
7. Sheep meat	378
8. Almonds – in shell	302
9. Potatoes	250
10. Barley	245
11. Dry onions	237
12. Apples	214
13. Strawberries	191
14. Chicken eggs	191
15. Grapes	180
16. Oranges	164
17. Green beans	152
18. Aniseed, badiane, fennel, coriander	127
19. Tangerines, mandarins, clementines	117
20. Melons, cantaloupes	163 (2009)
21. Beet Sugar	118
22. Spicy and sweet peppers	109 (2008)

⁶ EVEM, Espace Virtuel de Entreprises au Maroc EVEM.ma:MAROC-BasedeDonnes/Morocco.

Most olive oil produced in Morocco (80,000 MT annually) is consumed in the country. However, the government supports the planting of new olive trees through subsidies and the MCC program that was requested and planned by the Government. The Ministry of Agriculture predicts that olive area planted will increase from 784,000 ha in 2011 to 1,220,000 ha by 2020. As the result of the massive new planting of olive trees, olive oil production expected to double and production of table olives to triple. These additional products will have to be consumed locally or exported.

The local market for olive oil has good prospects for growth. Moroccans only eat 2.5 liters of olive oil per year, much less than other olive producing countries. At the same time, Moroccans consume 10 liters of grain oil, mostly imported soybean oil.⁷ Clearly, there is an opportunity for increasing the domestic consumption of olive oil per capita by substituting the imported oils.

There is a difference in olive oil quality demanded by the external and internal markets. Much of the local consumption is of high acid oil. This type of oil is poorly harvested and stored, and has a strong flavor. The growing export markets, e.g. in America, prefer the low acidity extra virgin oil. Oil that becomes too acid can be refined, taking out the flavor so that it tastes like refined soybean or sunflower oil. The refined oil is not worth as much as low acidity extra virgin oil, but is a good outlet for poorly handled or excessive supplies of high acidity oils. Morocco can seek domestic or export markets for its olive and olive oil, but the difference in the products demanded in the two market segments complicates the opportunity to shift between the domestic and export markets based on changing supply and demand each year.

Table 2. Value of the top agricultural export crops

Product	Exports \$ Millions (2009 – FAO data)
1. Tomatoes	304
2. Tangerines, mandarins, clementines	193
3. Olives, preserved	132
4. String beans	128
5. Oranges	115
6. Processed cheese	95
7. Fruit, prepared, not elsewhere specified (nes)	71
8. Cantaloupes and other melons	65
9. Food preparations, nes	42
10. Chilies and peppers, green	42
11. Pumpkins, squash and gourds	43
12. Coffee extracts	32
13. Strawberries	31
14. Vegetables, in temp preservative	25
15. Wheat flour	24

⁷ Figures on vegetable oil consumption given to the team by FICOPAM. M. Devico of Les Conserves de Meknes gave the same 2.5 liter estimate for Moroccan per capita olive oil consumption, but provided figures on imports implying slightly higher consumption of grain oil. He said Morocco consumes 480,000 of vegetable oil including 80,000 MT of olive oil and that it imports 400,000 MT of grain oil. That would imply 13 kg/person of grain oil – but possibly some of the excess is used in food processing rather than direct consumption.

Product	Exports \$ Millions (2009 – FAO data)
16. Essential oils, nes	24
17. Carobs	21
18. Grapes	18
19. Cigarettes	15
20. Vegetables, fresh, nes	14

Many Moroccans note that their olive oil tends to be sold in bulk to Spain and Italy, packaged there and marketed in foreign countries as Spanish or Italian oil. Government officials and business people consider the possibility of publicizing Moroccan brands or origin labels, hoping that they can reach foreign consumer markets directly and greatly increase their returns – that is, if foreign consumers can be educated about the merits of Moroccan olive oil and other Moroccan products. This is an ambitious undertaking. It has been done on a small scale, but it may be difficult to counter foreign impressions that the best olive oil comes from Italy or Greece, even if that may not be true.

Morocco’s most important export crops are presented in Table 2. Morocco has been very successful in exporting fresh products – tomatoes to Europe, clementines to the EU, the US and Russia, berries and other fruits to Europe, particularly outside of the main European producing seasons when customs duties are lowered. The price for Moroccan strawberries in Europe in February can be four times the price in July. But frozen exported strawberries also have a European duty preference, and though prices are lower, the exports add to the annual profitability of the Moroccan crop. With Morocco’s different growing seasons and relatively low labor costs, European market opportunities are likely to persist, though competition in strawberries and capers seems to be increasing, and European restrictions on citrus has led Morocco to leave some European quotas unfilled, with Moroccan exporters preferring to seek markets in Russia or elsewhere where traceability and other restrictions are less rigorous.⁸

Table 3. Principal imports in 2009 ranked by value

Rank	Commodity	Quantity (thous MT)	Value (\$ Million)
1	Wheat	2 390	681.8
2	Sugar Raw Centrifugal	973	422.4
3	Maize	1 703	357.4
4	Soybean oil	394	336.8
5	Soybeans	308	142.2
6	Tea	54	107.9
7	Cake of Soybeans	174	77.1
8	Coffee, green	37	69.5
9	Butter from cow’s milk	26	67.9
10	Dates	50	64.6

⁸ Citrus Annual Gain Report, no MO 1113 12/1/2011 USDA/FAS.

Rank	Commodity	Quantity (thous MT)	Value (\$ Million)
11	Beet Pulp	372	63.3
12	Cigarettes	223	59.6
13	Tobacco, unmanufactured	92	53.3
14	Food Prep Nes	149	50.0
15	Barley	272	49.0
16	Cotton lint	33	48.76
17	Olive oil, virgin	17	47.8
18	Cheese of Whole Cow Milk	10	45.1
19	Natural milk products	17	38.9
20	Bran of Wheat	261	34.8

Table 3 presents the principal imported agricultural products in 2009 ranked by value. These products represent competition faced by Moroccan producers. Wheat imports are the largest agricultural product import. Others include feed for animal production, such as soybeans and soybean meal, maize, even barley and bran. In a country with years of severe drought, imports from the world market may be the best way to maintain some degree of stability in prices, though worldwide commodity prices have sometimes shown sharp spikes – e.g. in 2008. The prices of fuel imports, 27% of Morocco’s merchandise imports, have also gone up in price, with the consumers protected to some degree by government subsidies when prices change dramatically.

Given that the country earns much foreign exchange in service industries (52% of GDP including tourism – tourism is 11 percent of GDP) and receives remittances and foreign aid, the need to earn export income from agriculture or subsidize production to replace imports is modest. Some efforts to increase production (e.g. better feed for animals) will use imported products (e.g. soybean meal and maize which constitute most of the cost of poultry production), so the net foreign exchange benefits may be substantially less than the value of additional export sales or import substitution sales.

The 2006 free trade agreement with the US, the Association Agreement with the EU, and other preferential trade agreements with the UAE, North Africa and other regions have phased in trade liberalization provisions that will give Morocco some export opportunities and also make it increasingly subject to competition in its home markets. The Government hopes to focus on promoting Morocco-specific products, building demand abroad for value added products and promoting exports – easier said than done.

In its 2011 retail foods report, the USDA noted that since the entry into force of the US-Morocco Free Trade Agreement in 2006, there have been small increases in imports of American products. These products included dairy products (butter, skim milk powder, whey and cheeses) that are used as ingredients for the food industry or are repackaged. These products are less than a third of Morocco’s \$243M annual dairy imports reported by the USDA (included in several different line items in the FAO data). Morocco protects its producers with custom duties; at present, the average customs duty on consumer food products from America is 50 percent. According to the agreement, the customs duties are to be phased out over 10 years. Also, a new shipping line is starting between Tanger-Med and Norfolk, VA – likely to enhance trade in both

directions. Morocco also imports juice (\$22.7M), beef, mostly for the military (\$24.1M), raisins, almonds, walnuts, pistachios and cashews (\$12.18M), processed tomatoes, frozen vegetables, canned corn etc. (\$4.3M), seafood (mostly from the EU) \$43M, and fresh fruits \$99.6M (dates from Tunisia, etc. \$77M, bananas \$12M, and apples under quotas from the EU and the US \$9M).⁹

Many of these imports are due to free trade agreements with various countries; import competition is likely to grow as the customs duty reductions with the US, EU and other groups are fully phased in. While trade liberalization will provide some sharp competition for some sectors of Morocco's economy, availability of a full array of products at competitive prices will make Morocco's restaurant and tourist industries more attractive. It is worth mentioning that the tourist industry is nearly as large as the entire agricultural sector (11% of GDP compared to about 15% for agriculture), and also tends to generate higher paying jobs/income/consumer demand than the agricultural sector. Thus, while increasing import competition will pose challenges for some sectors of Moroccan agriculture, the net effect for the country's economy may be positive.

Expansion of other sectors of the economy, such as promotion and expansion of tourism is a strong bet, given relative stability in Morocco and instability in other competing tourist destinations in North Africa and the Middle East, an excellent environment for tourists. Morocco received 4.5 million tourists in 2008. Over 3.3 million Moroccans working abroad also provided \$7B for the Moroccan economy. Morocco's food distribution sector continues to expand. There are now 48 large supermarkets, 270 small supermarkets and grocery stores, and nearly 300,000 small retail outlets.¹⁰ The Ministry of Commerce has also recently announced a national plan to develop several thousand jobs in logistics.

The supermarkets will cater to middle class and wealthier consumers and increase market prospects for products such as higher quality and more sanitary olive oil in sealed containers, competing with the traditional bulk unsanitary sales in the souks, and expanding consumer demand for new types, qualities and packaging of products.

Morocco's agricultural sector has several distinct risks, such as large variability in returns from agriculture due to local weather conditions, cyclical crop production variability, and large changes in demand and prices on external markets. These risks will play a major role in determining Government solutions as it seeks to address the needs of small farmers. Generally, the poorest farmers cannot afford to risk having a year where everything fails. They may have to settle for a lower but more certain return with respect to their overall income and sustenance. The farmers' strategies to mitigate risks include producing crops or livestock with a fairly certain market, or undertaking a mix of activities, some of which will provide income or sustenance if other activities fail. A farming activity that provides a supplementary source of income, outside the main season, for instance, may be particularly attractive.

When small farmers choose which crops and livestock to produce, risk is the main factor they consider, including both production and marketing risks. Farmers are at risk for dry weather that could limit their earning potential. If farmers have bought seeds and fertilizer (e.g. for grains) it may be more risky (costly) for them to lose their crop due to a drought. Most farmers in Morocco grow some wheat, but not enough for national consumption. Morocco is importing wheat and exporting flour (in Africa), having excess wheat milling capacity. Wheat is less perishable than flour, creating an advantage to milling close to consumption

⁹ Retail Foods Morocco USDA Gain Report MO 1116 12/21 2011

¹⁰ Retail Foods Morocco USDA Gain Report MO 1116 12/21 2011.

areas. The government has been attempting to get farmers to switch from wheat to olives in marginal areas. So clearly, it is recognizing that self-sufficiency in wheat is not an overriding priority in spite of the high import bill. Irregular rainfall makes excessive reliance on wheat alone risky for farmers, but culturally and traditionally, they prefer to grow some wheat, a basic foodstuff for the family – if they can't sell it they can eat it. But they may have to buy seeds and fertilizer and hope the weather will cooperate.

Agricultural experts in Meknes indicated that wheat is just marginally profitable, that the costs equal the sales price, and the farmer is growing the wheat just for the value of the bran. But in making that calculation, Moroccan experts calculated an opportunity cost of 1,500 dirhams/ha for land rental. Farmers that own their land may not consider the theoretical rental value to be a cost. When the evaluation team asked farmers near Meknes about switching from wheat to olives, they were not enthusiastic. Meknes agricultural agents explained that the policy was more geared to drier marginal wheat producing areas where wheat yields were 600 kg or less per hectare.

Morocco imports some products of the general type that it also exports. Olive oil is imported as well as exported, particularly in years when olive production (which varies year by year) dips close to national consumption levels. There were substantial (\$47M) imports of virgin olive oil in 2009 (and much smaller imports of \$2M and \$3M the previous two years). This would imply that there is unmet demand for quality, even in the Moroccan market in some years. Small amounts of imported foreign bottled oil may be purchased by expatriates or other high income consumers. Lesieur, a vegetable oil company in Casablanca, indicated that they are establishing two olive farms so they can control quality and traceability. This information might imply that there is an opportunity to work with farmers on improving quality and link them to one of the several large industrial vegetable oil bottlers and exporters, with a premium for the high quality products. A program might involve some initial subsidies to set up the relationship, train farmers and develop a win-win situation for farmers and industrialists.

The government has sensibly abandoned the idea that the country should try to be self-sufficient in major imported commodities like wheat, an idea popular a couple of decades ago. The key is farm income – what gets the farmer the best income while taking into account potential risks. Very poor farmers generally cannot afford to take a risk on overspecializing in a single crop like olives. If the marketing system is weak and/or prices are low, the farmer may prefer to have a mix of crops.

Olives are attractive for small farmers. The government is subsidizing the planting material; and they can plant other crops between the rows of olive seedlings in the short term. Once the trees mature, in about five years, they are drought resistant and have few production costs – mainly the harvesting cost – currently about 1,500 dirhams per MT, 1.5 per kg plus 0.5/ dirhams/kg of olives for pressing into oil. Olive plantings have greatly expanded recently. As new trees become productive, the Ministry of Agriculture and trade sources say olive oil production may double and table olive production may triple by 2020. If olive oil production doubles, unless the excess can be absorbed by expanding demand either at home or in the export markets, prices will fall. Somewhat lower prices might increase domestic consumption of olive oil. The cost of production and pressing is about 2 dirhams per kg of olives, or roughly 9 dirhams per liter. Consequently, prices in farming areas (currently 27 dirhams per liter) must remain substantially higher than 9 dirhams or some farmers would leave the olives unharvested. But the international market is strong and growing for olive oil, and preserved whole olive exports have been very successful, so it is likely that the increased olive production will be beneficial to farmers and farm income. For olive oil, the greatest marketing opportunity may be for expanding domestic consumption, replacing imported soybean oil consumption with olive oil consumption. Better marketing systems, lower prices and publicity on the health benefits of olive oil could play a role.

Soybean cake, maize, wheat bran and barley are used for animal feed. If Morocco blocked imports in favor of local production, it would lead to higher cost and less competitive eggs, meat and milk, so imports of feed make sense. Morocco has eradicated foot and mouth disease – when that is officially recognized by Europe and the US, it may be able to export some sheep meat. At some point, Morocco will face increased imports of powdered milk, which can be reconstituted into UHT milk and compete with local milk. The Chief of Party of the Morocco Economic Competitiveness (MEC) told the team that he thinks locally produced milk will continue to enjoy a comparative advantage, though obviously there will be different competitive segments of imports and exports, just as there are today.

DONOR PROGRAMS IN MOROCCO: 2006-10

Table 4 presents the data from the French Development Agency (Agence Française de Développement). The table shows funding from the principal donors active in agriculture by areas of intervention. Also, see Annex I for a summary of USAID programs in Morocco since 1957, including major dam/irrigation projects, value chains and other activities.

Table 4. Funding by the principal donors active in agriculture by areas of intervention

Priority Sectors	World Bank	UN	African Dev Bank	EU + EurInvest Bank.	France	Germany	Belgium	Spain	Italy	U.S.	Japan	Canada	Arab countries
Million Euros Total 2006-10	1500	150	1000	1200	900	150	60	200	100	1000	500	20	500
Infrastructure Water	◆◆◆ ◆		◆◆◆ ◆	◆◆	◆◆ ◆	◆◆	◆◆	◆◆	◆◆	◆◆◆	◆◆ ◆	◆	◆◆ ◆◆
Roads	◆◆◆		◆◆◆ ◆	◆◆	◆◆	◆◆	◆	◆◆		◆◆◆ ◆	◆◆ ◆		◆◆ ◆◆
Energy	◆◆			◆◆	◆◆	◆	◆	◆		◆◆◆ ◆	◆◆	◆	◆◆
Urban infrastructure	◆◆◆	◆		◆◆◆	◆◆ ◆		◆	◆◆		◆◆◆ ◆			◆◆
Agriculture /fish	◆◆			◆◆	◆	◆	◆◆	◆◆ ◆	◆	◆◆◆	◆◆ ◆	◆	◆
Education	◆◆◆ ◆			◆◆◆	◆◆ ◆	◆◆	◆◆	◆◆		◆◆	◆◆	◆◆	◆◆
Health	◆◆◆	◆		◆◆	◆◆				◆◆		◆◆ ◆	◆◆	◆◆
Governance	◆◆◆ ◆	◆	◆◆	◆◆◆	◆	◆	◆◆	◆	◆◆	◆◆◆ ◆			
Private Sector	◆◆◆			◆◆◆	◆◆ ◆	◆◆	◆◆	◆◆	◆◆◆	◆◆		◆◆ ◆	◆◆
Natural Resources	◆◆◆	◆◆	◆◆	◆◆	◆◆	◆◆ ◆	◆	◆	◆	◆◆			
Gender				◆◆	◆	◆◆	◆	◆		◆	◆		
Legend :	◆◆◆ >100 M€		◆◆◆ 50-100 M€		◆◆ 10-50 M€		◆ < 10M€						

The economic assistance landscape in Morocco is diverse with representation of large and small donors in several different ways. The international banks (World Bank, African Development Bank and European Investment Bank) traditionally offer loans. Most of the bilateral aid from the EU and other donors is received in the form of grants.

There are many areas of agriculture where USAID has special capabilities or linkages that could be useful for Morocco. But it is essential to consider what others are doing. A World Bank official told the team that the Moroccan government generally does not ask multiple donors to do the same thing in the same place, but conceded that coordination and sharing information among donors on related programs is imperfect.

For instance, one area of interest might be to help with veterinary issues. This is one of the activities under the MEC dairy cooperative project. The key national agency that handles veterinary issues is the Office National de Sécurité Sanitaire des Produits Alimentaires (ONSSA; National Office for Sanitary Security of Food Products), which handles veterinary issues, plant protection and food safety. But ONSSA indicated that they are getting help from Belgium, France, Germany Spain and multilateral donors. If USAID wanted to help with for instance, privatization of veterinary services, it would be wise to determine what other donor programs are doing, and where. There is a similar issue for irrigation and drought control, where the US has extensive capabilities that can be of use. There are many donors working in other areas as well.

The Moroccan Government's policy is to launch regional programs, but a major US program should also coordinate with national authorities to ensure effectiveness and sustainability after the project ends, even if national authorities are not heavily involved in its implementation. USAID is different than other donors in that it does not give funding to the Ministry of Finance to channel to Ministries. But it would be wise to coordinate closely with national authorities to get their advice and/or buy-in and to increase the possibility that donor efforts will be complementary. USAID may also be able to offer useful advice at the national level. For instance, the expensive conversion from gravity to drip irrigation may not be the most cost-effective investment in every situation throughout the country. Farmers installing heavily subsidized irrigation equipment might find it worthwhile, particularly if they don't pay the value of the water. But a low yielding crop might not be an ideal investment or use of scarce water. In some cases, social considerations may outweigh economic considerations, but economic considerations should be evaluated so that a rational decision is made. A few details of the general categories of projects pursued by several of the main donors are as follows:

MCC (Sept 2007 to Sept 2012)

1. Tree culture (olives, almonds, dates)	\$326M
2. Artisanal fish	\$120.70
3. Functional literacy and professional training	\$43.70
4. Enterprise assistance	\$31
5. Financial services	\$43.7
Total MCC financing	\$697.5M

Agence Française de Développement (AFD)

1. AFD is working on a large irrigation perimeter 6000 ha loan is 40 million Euros and grant of 500,000 Euro.

They support irrigation in three regions:

- a. Bes Boulemane
 - b. Taza Al Houceima-Taounate
 - c. Tanger-Tetouan (loan of 50 million and subsidy of 300,000 euros).
2. AFD provides funding to the Moroccan government to fund locally projects but it reviews projects prior to implementation and can veto them (and has done so).
 3. Index on drought.

UN/FAO Programs:

1. FAO conducts project analysis (“rural invest”) to encourage investments of less than USD \$1M. It started training in 2011 for officials of the Ministry of Agriculture who are already specialized in many areas but need training on starting and implementing projects.
2. Technical information on information researchers, teachers, technicians, farmers.
3. Support for labeling of national products – so far for sheep, dates, olive oil and saffron in different regions of the country.
4. Assistance in irrigation Doukkala – reconversion gravity to drip irrigation (with 15 short-term experts). FAO mentioned that it sometimes engages American experts in its technical assistance programs.
5. Diagnostic guide for Aromatic and Medicinal Products edited in 2011.
6. Cooperation with donors CTB, CE, Spanish, Italians, IBRD.
7. Gender work – social and economic gender analysis manual for numerous sectors – crops, livestock – applied to all new projects since 2011.

UN/IFAD:

1. Agricultural value chain development in several mountain zones.
2. Completed livestock and rangelands development project in Eastern Region – Phase II.
3. Currently running an irrigation project and an agricultural credit project.

GIZ (German cooperation):

1. Migration and regional economic development in Oriental region.
2. Promotion of micro, small and medium sized enterprises.
3. Environmental program.
4. Desertification control.
5. Renewal energy and energy efficiency.

6. Integrated water resources management.
7. Gender equity.
8. GIZ Transnational (regional) projects based in Morocco:
 - a. Technical dictionary for the Arab world
 - b. Strengthening municipal structures in the Maghreb
 - c. Forestry policy and climate change
 - d. Good governance – Maghreb (Western region of North Africa)
 - e. Support to combat desertification
 - f. Regional center for renewable energy and energy efficiency.

World Bank loan: Activities

1. Port sector
2. Forestry II
3. Agricultural sector investment loan
4. Rural electrification
5. Basic education
6. Rural finance
7. Secondary roads
8. Financial sector development
9. Several irrigation projects
10. Environmental management
11. Land development
12. Watershed management
13. Rural water supply and sanitation
14. Emergency drought recovery
15. Integrated solar power
16. Agriculture/agribusiness marketing
17. Capacity building for non-governmental organizations (NGO)
18. Development of Moroccan Accounting Standards
19. Capacity building for government audit
20. Public administration reform

21. Public procurement
22. Business environment reform II
22. National food fortification program
23. Cooperative sector capacity building

Other important donor activities include EU financing of Morocco's National Initiative for Human Development (INDH) with 64 million Euros between 2005 and 2010. INDH provides subsidies in various areas such as equipment for some of the cooperatives that the USAID IAA project was assisting. The EU also supports or export promotion, water and waste projects in five locations, government reform, basic medicine, irrigation projects, urban health and human rights.

USAID PROGRAMS, MECHANISMS, PRIORITIES

USAID's involvement in Moroccan agriculture began in 1957 with economic and technical assistance to several sectors. Initial programs focused on dry land farming; later programs were introduced on capacity building, water management, irrigation, value chain development, fruit tree productivity, research, food safety and trade promotion assistance. USAID programs in Morocco have totaled about \$2B since 1957 (See Appendix 1 for more details). Recent programs include the Morocco Agribusiness Promotion Project (1992 - 1998 which linked Moroccans to 1,500 American business and academic contacts), the AP3 Program (2005-2006), the Integrated Agriculture and Agribusiness Programs (2005-2009) and the current four-year program, the Morocco Economic Competitiveness Program (MEC).

The implementation of US assistance programming differs markedly from the European model. Generally, European and multilateral aid programs tend to follow the principles of the 2005 Paris Declaration of Aid Effectiveness, asserting that host countries should formulate and implement their own national development using their own planning and implementation systems. Thus, some of the European countries tend to provide money to the Ministry of Finance to channel to Ministry programs, with continued consultation with donors but controlled by the host government. USAID programs tend to be run more independently of the host government, with some advantages like more flexibility and shorter lead times to make modifications in programs and funding priorities. MCC, with a huge program, took a different path, asking the government to set their priorities and negotiating the programs based on those priorities, but it also insisted on setting up an autonomous financing agency within the government to run while the MCC program continues, with reimbursable funding so that nothing could be spent after the program ends in September 2012. One advantage is that program funds do not get locked up in the Ministry of Finance, where they may be difficult to access for timely launching of programs. But insisting on setting up a separate government agency is more feasible with a \$700M program than a \$15M or \$23M dollar program.

There are a couple of potential dangers inherent to the USAID assistance model. First, is the risk of overspending program resources to achieve formal output targets. Achievement of formal outputs that have indirect links to the project objective (such as number of people trained) may divert funds from activities that are not easy to measure but have greater impact on overall program objectives (for example, assistance in drafting government policy). The USAID evaluation policy sets performance indicators such as sales, investments, profits, training numbers and gender issues. Contractors will need to try to exceed indicator numbers. There is a danger that sales or training numbers can be artificially bloated, or sub-optimal activities can be launched at the expense of more valuable efforts in order to meet the indicators and demonstrate immediate results. This may not be fully consistent with the fact that the most successful efforts in agriculture development often take a minimum of several years to implement. Another caution is that it is desirable to avoid changing the objectives, project focus or indicators in the middle of a project, except in areas where efforts are clearly not working and must be refocused.

A second risk that the relatively short time frame of projects may make them less flexible than would be optimal, so good advance planning prior to the project is critical. Even with good advance planning, conditions and opportunities change and priorities may change as willingness of local partners to contribute is clarified. USAID is generally faster and more flexible than European programs, but the system could still be improved. When USAID announces a program, contracting companies bid and try to receive approval based

on the ideas presented in the proposal. Bidders are generally loath to challenge any of the basic ideas in a proposal. Once a program is awarded, it can be difficult to change direction. Setting up a new program, planning, and establishing partners and procedures for grants, generally takes at least a year before active program implementation begins. It is sometimes possible to get approval for new directions to address new opportunities or to abandon activities that are not working out, but that is difficult. Ideally, if possible, there should be some advance exploration with potential partners to assess opportunities, needs and to get a rough idea of likely contributions before a major new project is launched.

The ideal project is implemented where local organizations are eager to proceed with some of their own resources and are likely to continue over the longer term but need a helping hand to get the activities started. While there are a number of possible areas where the US could help in government programs, regulatory reform and research linkages, one particularly beneficial area to address is the Moroccan Government's desire to encourage private sector agriculture to become more competitive. The US has special skills here, including knowledge of access to the US market, and could help the Moroccan government implement positive policies and avoid ones that will hurt the private sector, like excessive or poorly conceived regulations. In order to identify particular sectors for the USAID intervention, it might be desirable to have a short-term advance activity (possibly by one or more USAID staffers able to devote full time to the task during one or several months) that explores several activities and value chains, identifies partners, and determines what other donors are doing. For instance, the advance activity could involve going to major commodity associations of interest and other stakeholders for individual discussions, then sponsor a stakeholder workshop for each value chain of interest. In that workshop, they could ask associations and other stakeholders to identify areas where efficiencies can be improved, small farmers can be helped and broadly defining contributions needed by a USAID project and those to be made by other stakeholders. USAID might get an industry association to sponsor or co-sponsor such a workshop, or it might be held as an individual session in conjunction with a normally scheduled annual meeting of the association. This reaching out to the private sector bears some similarity to what the IAA program did with the private associations when determining how to improve the information systems of EACCE. European programs have a similar approach, but they ask the host government to set program priorities, while leaving the private sector and other stockholders largely out of the discussion. The proposed procedure would rely particularly on ideas and cost-sharing from the private sector.

COOPERATIVES

The recent IAA program focused some of its activities on small cooperatives to reach poor farmers. Morocco has over 3,000 agricultural cooperatives, including about 230 women's cooperatives. One report indicates that of the total agricultural cooperatives:

- 34 percent are in milk (1,034 cooperatives and cooperative unions)
- 20 percent in livestock
- 20 percent cooperatives for supplies to members
- 11 percent in bee products
- 6 percent for joint use of agricultural machinery.¹¹

¹¹ Les cooperatives et mutualites marocaines, <http://blog.wikimemoires.com/2011/04/cooperatives-mutalities-marocaines>.

During the IAA Evaluation field visit, the team heard a number of negative comments about the marketing capabilities of cooperatives from several officials and from the national sheep and goat association. Some of the poorest farmers are organized in cooperatives, though most farmers (with a few important exceptions such as dairy, citrus, berries and argan oil) do not market their products through cooperatives. Joint marketing requires competent management and confidence by farmers that the marketing will be handled competently and honestly, which can be problematic with untrained volunteer leaders.

Some sources said the most successful cooperatives have been argan oil producing cooperatives in southern Morocco. A study published in March 2012 by the European Research Institute on Cooperatives and Social Enterprises, written by Zahir Dossa of MIT, indicated that there are about 150 women's cooperatives in southwest Morocco that produce and market argan oil. Morocco established laws and regulations to recognize cooperatives in 1984 (revised in 1993); the EU provided funding for the proposal. The average size of each cooperative is 46 female members. In theory, each cooperative is organized and run by the women, as desired by the EU, which funded the activities. Between 2006 and 2007 the EU provided €1.3M to 41 cooperatives, financing 86% of their expansion costs – including presses, filtration and bottling machines. With the extensive funding being developed along with a government-sponsored umbrella organization and a number of argan marketing associations set up (each grouping a number of small cooperatives), the number of argan cooperatives increased from 15 in 2003 to 154 in 2004. Many of the women were illiterate, however, and the study concluded that the actual marketing was done by male managers who made unilateral decisions and sold the oil through associations for exports. The study said that the associations and retailers abroad got 71% of the value and said the “cooperatives” were much more akin to private companies than cooperatives.^{12,13}

Cooperatives (which are often very small) and associations (which sometimes group a number of small cooperatives) may be the best way to reach small farmers with training and information on production and post-harvest marketing activities. But with volunteer leaders and few or no trained staff, cooperative marketing capabilities and activities are usually weak. Cooperatives do not have a deep tradition in Morocco and were first given formal legal status with laws passed in 1984 and 1993. In some cases (e.g. olive and caper cooperatives visited by the evaluation team in Meknes), cooperatives were created to manage the receipt of land distributed to landless rural workers in the 1970s or to receive feed or other subsidies. Some sheep and other cooperatives assist farmers with their individual marketing activities, but the managerial and marketing capabilities of cooperatives are usually weak. Milk cooperatives, being assisted by MEC, fund professional processing units with salaried technical staff and may work better than other cooperatives, providing essential veterinary and other advisory services to farmers and assuring sanitary production for a highly perishable product. An official from Credit Agricole (the largest agricultural bank in country) told the team that fewer than 5% of Moroccan farmers belong to cooperatives, and that Credit Agricole will not usually loan money to cooperatives because they are poor credit risks. Other sources indicate that cooperatives of all types (most of the others are artisan and building cooperatives) account for about 3 percent of the total Moroccan workforce. Cooperatives can provide a useful link between marketing companies or organizations with

¹² Dosa, Zahir, 2011 *Cooperatives and Development Strategy? An Analysis of Argan Oil Cooperatives in Southwest Morocco*, Eurice Working Paper, N. 029/12 Fondazione Eurcise (European Research Institute on Cooperative and Social Enterprises), Italy.

¹³ Comment: The expectation that the farmers or gatherers of the products would obtain a large share of the final retail price is probably unrealistic. That doesn't generally happen in the US or elsewhere. Having a good marketing system that provides the quality the export market wants and a reliable outlet for the producers is a big benefit

supplying farmers, but, in many cases, have limited ability to move up the value chain into export marketing or processing very far beyond the farm gate.

Although there are exceptions, it may be difficult to rely on small scale producers with volunteer leaders and with small quantities of production relative to market needs to be successful in marketing and processing for export markets. There are cases of useful post-harvest cooperative activities, involving preservation, quality control or moving processing or storage closer to farmers (such as cooling tanks at milk collection centers, preserving capers in salt water so they can be sold later at higher prices, or pressing olive oil quickly and on an established schedule for farmers to achieve higher quality). Generally, as in the case of berry and citrus cooperatives, the farmer groups are most successful if they can be tied to larger, more modern business units further up the value chain rather than trying to help them jump over intermediaries and address all the complexities of reaching export markets. If approached with realistic expectations, cooperatives can be a crucial part of efforts to improve the incomes of poor farmers and jointly negotiate with marketing organizations. An example of success was sheep farmers in the IAA program that worked through their cooperatives to successfully negotiate a program to sell live sheep to consumers next to Marjane supermarkets.

Cooperatives that have reportedly been successful are milk marketing cooperatives, where a fee on the milk is used to finance paid managers, and the structure can be used to improve sanitary and veterinary services for farmers and to increase production. Similarly, in the citrus area, USDA reports that Moroccan citrus exporters commonly work with groups like the Moroccan Fruit Board, a cooperative that helps handle logistics and coordination with member suppliers.

In sum, cooperatives are a good way to group small farmers to improve their production and post-harvest practices. They are also a good way to group products in adequate quantity and quality to achieve exportable quantities. It may be a mistake to think that many small cooperatives can effectively jump over the normal intermediaries and exporters to market directly in European or American trade fairs.

IRRIGATION

USAID programs have addressed irrigation and drought since 1957. There are several other donors that now participate in the activities of this area. About 15 percent of Morocco's farmland is irrigated – particularly for vegetables but also for some tree crops. Early projects of USAID and other donors focused on dams with gravity or sprinkler irrigation.

Over time, there has been increased pressure on the land due to population growth. Also, the sheep that used to be sold off and slaughtered in dry seasons are now often kept alive with purchased feed, increasing the herds and pressure on the land. Increased pressure on land requires increased irrigation to maintain adequate production of feed. In addition, some Moroccan and international studies report that Morocco is becoming drier over time. With a focus on poor people in rural areas, some subsidies have been provided for investments and planting drought-resistant crops such as olives in rain-fed areas. The government has adopted a program for irrigation 2008-2020 which seeks to replace the sprinkler and gravity irrigation systems with drip irrigation, including 220,000 ha under programs of the Ministry of Agriculture and 330,000 ha with programs directly with the farmers, subsidized by the state, with 50,000 to 70,000 ha to be converted each year. In 2011, 980 million dirhams in subsidies were provided. The total program through 2020 is estimated to cost 37 billion dirhams (\$4.4B). An optimistic and controversial part of the program is to switch water monitoring use from groups to individual farmers and to get the individual farmers to pay for the water they use. The main donors in the reconversion of gravity irrigation to drip irrigation are the World Bank, the

European Investment Bank, and the African Development Bank, and French, German and Japanese agencies.¹⁴

MARKETING AND EXPORT PROMOTION

Given that the country earns much foreign exchange from other sources, the benefits in foreign exchange export earnings or import substitution from improvements in production/incomes of small farmers are modest. Addressing domestic market needs may be more feasible and less risky in some cases than pursuing export markets for products such as olive oil. On the other hand, USAID may be appreciated for its special abilities to help exporters access the US market. Focusing on something that Morocco wants and that others cannot easily provide – such as access to the US market – may be desirable with respect to public perception of USAID programs, even though in some cases, enhanced access to the domestic market may be as good or better in terms of assuring stable returns for poor producers. Ideally, USAID programs could do both.

USAID is in good position to assist Moroccan exporters in developing the market for Moroccan products in the US. USAID has access to experts and linkages to institutions that can help Moroccan exporters succeed. Many efforts have been made in the past with American businesspeople and universities (e.g. in the 1992-98 programs, the 2005-09 IAA program, and now in the MEC program). Some of the initiatives will work, but in an ambitious program, some will fail and should not be seen as entirely negative. The following are a few illustrative ideas that could be explored.

Some American producer groups are challenging USAID programs in Morocco under the Bumpers Amendment that forbids use of US assistance for any training, consultancy, conference, variety development, publication or aid to production for exports that would compete with a similar product grown or produced in the United States.¹⁵ A USAID project could invite US date or olive industry representatives to come to Morocco on a team with a major retailer such as Whole Foods, see the industry, and give advice on production and marketing. They could discuss win-win advertising campaigns or joint marketing or production to increase consumption of target projects and help producers of both countries. Whole Foods sells its 365 brand of “Mediterranean” extra virgin olive oil for \$6/liter – plus other extra virgin olive oils that are a multiple of that price. Trader Joe’s offers the same \$6/liter Italian extra virgin olive oil and a \$5.50/liter Spanish extra virgin olive oil under a Trader Joe label, in addition to much more expensive olive oils. It is unclear where Moroccan exporters can fit into this structure and whether they can convince traders such as Whole Foods, Trader Joe’s or Kroger to offer products under their store brand, labeled as made in Morocco.

Another possibility might be to establish a link between the tourist industry and sale of Moroccan products. For example, American tourists could send a \$40 food basket of Moroccan products as a present to friends at home along with a digital photo that promotes Moroccan tourism. The basket of goods could be held in the US and shipped by a US retailer quickly after an order is received.

¹⁴ The data on irrigation was provided by Fouad Rachidi formerly technical director of IAA and now with the MEC project. It is similar to information from the World Bank report and the Ministry of Agriculture website.

¹⁵ A good overview of the Bumpers Amendment restrictions is by F.D. Ryder, Office of the General Council, USAID, Legal and Policy Considerations for US Trade and Investment Activities,” October 23,2008: [https://www.goggle.com/Bumpers Amendment](https://www.goggle.com/Bumpers%20Amendment). There are some exceptions for food security assistance in developing countries, if there is no significant impact on the export of U.S. agricultural commodities.

Attendance by export-ready companies at trade shows like the US Fancy Food Show is another option. To make it realistic and get the right people, participating companies should bear some of the expense – such as their own hotel and international airfare – if the project pays for the booth, shipment of samples, creation of a promotional brochure and travel within the US.

VALUE CHAINS

Based on the government policies outlined in the Green Morocco Plan and experiences of the recently implemented project, the value chains development will remain the major focus of agriculture reforms. As discussed in the IAA project Evaluation Report, the project experience demonstrated that interventions in the agriculture sector are more sustainable if a project is able to find an aggregator, such as an existing trader, processor or other group on the market, for a particular value chain. The idea is that the aggregator could take the lead in reaching back to farmers to improve quality, quantity, timeliness and post-harvest handling, and reach forward to domestic or foreign markets to provide what is needed in terms of certifications, traceability, quantity, quality, timeliness and price. The logical starting point for a project would be an association or exporter, with the project learning how the value chain works and what inefficiencies could be addressed. For instance, the Lesieur vegetable oil company is building its own olive plantations to control quality, traceability, reliability of supply, etc. They might be convinced to enter into a relationship with a cooperative, or several cooperatives and an association that could work to provide them with the quality, quantity and timeliness of products they need for domestic or foreign markets. Another example is capers. A recent news article claims that farm level harvesters sell their fresh capers for 5 dirhams/kg and the intermediaries sell them to the processing factory for 20 dirhams.¹⁶ The IAA program helped a few producers learn how to preserve capers so they didn't have to sell them the same day. In finding value chain activities, it is desirable to find willing parties, preferably those willing to act largely on their own with only a modest helping hand from a USAID project. A cooperative supplying a caper industrialist might be such a partner.

Assuming that USAID wants to focus on poor communities under Pillar II of the Green Morocco Plan, other opportunities may be in livestock – possibly in cooperation with the national sheep and goat association. Genetics, veterinary services, feed issues and marketing needs could be addressed. For poultry broiler production, an out-grower system where a central company provides day-old chicks and possibly feed, could lead to arrangements with small farmers and cooperatives. The ideal is to find a substantial market player, an aggregator willing to reach back to improve the value add and profits of small farmers, probably organized in cooperatives or associations, in order to provide the aggregator with the quantity and quality of products needed.

EXTENSION AGENTS

As part of its focus on regional multi-agency development activities, a major new government initiative is the development of an effective extension service. Attempts will be made to set up regional agricultural offices that reach out to farmers, test their soil, and give them production advice. There are thoughts of charging a fee on marketed commodities to fund agricultural research and other activities. Eventually, they hope to evolve this public system into a private system with private experts providing advice, and value chains working together and helping fund the organization's exercises (a similar system was recently launched in Tunisia, linked to a World Bank program). If USAID launches a regional value chain project, it is desirable,

¹⁶ Production des Câpres, Tous Ensemble pour un Maroc vert, [www. Marocagriculture.com](http://www.Marocagriculture.com), June 1, 2012.

and probably necessary, to include these regional experts in the outreach programs. But in absence of a reasonably well-funded USAID value chain program, the evaluators recommend that USAID leave this very ambitious effort of first public and then private extension agents to other donors or Moroccan agencies.

CREDIT FOR AGRICULTURE AND AGRIBUSINESS

Credit is an important aspect for most businesses. An OECD investment report indicated that, for small and medium sized enterprises in Morocco, lack of available credit is a major constraint. The Ministry of Agriculture says that 18 percent farmers have access to credit. Crédit Agricole indicated that small farmers and cooperatives generally do not have access to bank credit. When they need credit, small-scale suppliers should obtain it from their buyers or input suppliers. In meeting with farmers, the evaluation team was not told that credit was a major constraint for small farmers, though wheat farmers need to buy seeds, pay for machine harvesting etc. Olive producers do not have major production costs, and may be able to arrange for harvesters to be paid after the product is sold and delivered to the pressing facility. Berry farmers procure seedlings on credit from the big exporting companies. For exporters, there is the possibility of innovative credit schemes such as Root Capital, based in the US and financing based on export contracts in a three-way contract with the exporter and the US importer. But the 6-8% cost of credit quoted to the team would suggest that firms with good collateral could get workable loans. One IAA activity was a study of rural credit. Subsequently, la Société de Financement pour le Développement Agricole (SFDA Financing Company for Agricultural Development), a new credit facility, was created in 2008, but it did not extend much financing. SFDA charged 8.5% to the small and medium enterprises who qualified, compared to 5% for large enterprises. SFDA did not provide bank credit for small farmers or cooperatives because it thought they were bad credit risks. Microcredit exists in Morocco, but interest rates are very high and not suitable for most agricultural products – it is more geared to quick-turnover, high-value trade goods. Buyer or supplier credit may provide an alternative to bank credit.

GOVERNMENT FUNCTIONS

USAID programs in the past have worked with EACCE and the Ministry of Agriculture, substantially improving their information gathering and dissemination processes. More could likely be done, particularly to reach out to associations (as was done in IAA work with EACCE) to see what changes could be effected to help develop the private sector and implement those changes. The US has very strong capabilities in satellite imagery, land use studies, planning and many other areas. Recent donor focus on the local setting of priorities has included recognition that development programs work only when there is substantial local buy-in.

The Moroccan tendency to want to promote long-term subsidies in a multitude of areas is not an ideal system for USAID to fully support. For instance, two olive oil industry contacts complained that olive oil export subsidies were too broad and did not promote improved quality, others reported that some of the administrative procedures for subsidies were too complex and time consuming. The evaluation team felt that some farmers who got free or nearly free assistance seemed to have reduced initiative. For instance, the olive farmers and caper gatherers who got free plastic barrels (worth \$35) from IAA and from INDH found them to be extremely useful, but didn't seem interested in buying their own. Reportedly, the problem of subsidized products reducing recipient initiative has been experienced by some programs in Morocco. In some cases, Moroccan Government programs have shifted to subsidize only 80% (or less), rather than 100% (e.g. of olive seedlings outside the MCC program). Ideally, USAID should seek to provide support that will be temporary, with the private sector succeeding on its own after a brief period of help is provided. That is also the scenario championed by the Moroccan government, but actual realization will be more difficult than the theory.

The IAA program was introduced during a time when the Moroccan Government was actively implementing new policies. IAA experts influenced the Green Morocco Plan and helped show the way on how to use the Green Morocco principles in project implementation for specific projects. Concepts of focusing on the value of water were also appreciated. US experts could be quite influential, given the right timing and mix of activities desired by the Moroccans. It is easier to convince them to go further down the path of something they already agree with (e.g. helping private companies) rather than something that may face strong resistance (e.g. changing the law restricting transport of meat).

Legal changes

There are many legal changes that could help agricultural competitiveness – such as changed rules on transparency for government information, changed legal status of cooperatives, changes in restrictions on shipping meat more than 80 km, single window approval system for investors, permitting the sale of agricultural land to foreigners, easier land use and building permits at the municipal level, and changes in customs duties (e.g. on imports of berry plants). The industry is well placed to point out the best opportunities for legal changes, and also can play a major role in petitioning the Government for changes. They will also have a good idea of whether near term changes are realistic. USAID projects should rely on the relevant agro industries to identify the most important and best opportunities for legal changes.

RECOMMENDATIONS

We would like to make some recommendations to address the needs and shortcomings identified in the sections above. First are suggestions regarding the organizations and management of USAID programs. Second, we discuss ideas for further USAID programs in Morocco's agriculture sector. The assessment team would like to suggest two improvements to the design of USAID programs in Morocco that are particularly important for the agriculture sector.

1. **Monitor agriculture projects based on complex review of program activities rather than just on achieving targets for a group of indicators.** Ideally, there should be a monitoring program where the indicators are used as a part of the assessment of results, and priorities are periodically evaluated by USAID (preferably quarterly, but at least annually). There is a danger that the implementing contractor can either artificially bloat indicators or implement sub-optimal activities at the expense of more valuable efforts in order to meet targets. A good monitoring program will reduce this risk. The indicators should not be overly complex, and their validity as a measure of program activities and success should not be exaggerated. Sales, investment and training must be indicators and, if possible, incomes and jobs, though the latter may be very difficult to measure. A narrative should be required to supplement the numbers and explain challenges, accomplishments and the durability of changes. Finally, given that most successful efforts in agriculture take a minimum of several years to implement, it is desirable to avoid changing the objectives, project focus or indicators in the middle of a project, except when efforts are clearly not working and must be refocused.
2. **Conduct an advance exploratory activity before issuing an RFP for a specific value chain.** The short-term advance activity would explore several activities to develop the value chain, identify partners, recognizes what others are doing, and spell out likely activities. It would involve discussion with relevant government authorities, but unlike the European programs which ask the host government to set the program priorities, it would focus on what the private sector thinks will work as a first step, then engage all stakeholders in discussions and planning, including relevant government agencies. Following individual discussions with private and public stakeholders, the advance activity implementers could conduct a workshop with major stakeholders, possibly in conjunction with the annual meeting of a major association. This would help identify the stakeholders' opportunities, priorities and likely contributions. The advance activity could be managed by USAID staff dedicated to that task during one or several months, or through a short-term contract.

Based on the analysis of current agriculture sector needs, government policies, and the activities of the other donors, we suggest that USAID consider the following areas and methods for interventions in the Moroccan agriculture sector:

1. **Align USAID programs in the agriculture sector with the Moroccan Government priorities outlined in the Green Morocco plan.** USAID should also focus on assistance programs that will help the poorest farmers (Pillar II of the Green Morocco Plan); these activities should be linked to the marketing systems of the modern sector of agriculture (Pillar I) .

2. **Explore opportunities from linking small farmers to bigger market players.** Small farmers, organized in cooperatives and large groups (associations), ideally should be linked to bigger market players for marketing and also, in some cases, for technical assistance and financing. In assessing a market opportunity for a producer group, the first question should be, “What can they sell,” followed by asking what they can produce, at what cost and against what competition. The project should seek an aggregator like an existing big processor and trader who would benefit from the better quality and certainty of supply, accept some short-term help in linkages and training from the project, and be willing to establish a durable win-win relationship that will continue after the end of the project.
3. **Export promotion including development of US and European market opportunities should be an important activity of USAID projects, but care should be taken to target exporters who have the skills and potential to succeed.** While it is possible that some cooperatives may be able to export effectively, in many cases, a better strategy is to find an aggregator, existing trader or processor, or other group that could take the lead in reaching back to farmers to improve quality, quantity, timeliness, post-harvest handling, and reach forward to domestic or foreign markets to provide what is needed in terms of certifications, traceability, quantity, quality, timeliness and price. In some cases research or other technical expertise is needed, possibly through cooperation with an American university that would take the lead in certain areas. The logical starting point for a project would be an association or exporter, with the project learning how the value chain works and what inefficiencies could be addressed.
4. **Projects designed to improve lives of poor farmers would be most effective if they focus on developing cooperatives and seeking labor-intensive products and in areas where special conditions make poor farmers competitive.** In dry land conditions, this includes crops such as olives, or particularly livestock such as sheep and goats that usually eat inexpensive grass instead of expensive imported grain. There are variations on types of sheep programs that could be effective, including improved breeds, better breeding and feeding practices like early weaning, veterinary services, meat, milk and cheese production, etc. Developing bovine dairy collection centers, beef programs (feedlots for bull calves), or poultry broiler outgrower programs in connection with a large producer are also attractive possibilities. Wild plants like capers or aromatic and medicinal plants are other labor-intensive products that enjoy a strong competitive position on the world market and can be further developed in the areas where they can be grown.
5. **USAID projects should consider working with regional government extension experts when new regional activities are launched to improve production and marketing for small farmers.** Regional experts may provide some very useful help with project outreach. But in absence of a reasonably well-funded USAID value chain program, the evaluators recommend that USAID leave the very ambitious new effort to develop first public, then private extension agents to other donors or Moroccan agencies.
6. **In cases where a USAID project assists agro-businesses that need credit, the project can help the businesses obtain financing from commercial banks.** The project could help agribusiness develop bankable proposals and train bankers on how to evaluate credit worthiness, cash flow and other aspects of credit. The evaluators do not advise the USG’s loaning money where banks are unwilling to loan it, because defaults would likely be high.

7. **Support improvement of public access to information on the Moroccan agriculture sector including trade.** At the moment, although Moroccan websites provide some data, the UN Food and Agricultural Organization (FAO) provides the most complete details on Moroccan agricultural exports and imports. More detailed trade information should be provided for investors and others for specific agriculture products. This improved foreign trade information could be provided on websites of the Ministry of Agriculture, the Ministry of Finance, EACCE, or all three.

8. **Continue projects in the area of drought and irrigation.** Work on drought and irrigation is of crucial importance to Morocco. It is an area where USAID has been active in the past and should be active in the future. In planning activities, USAID projects should assess what other donors and agencies are doing and how USAID efforts will fit. Coordination at the national level is desirable, even in cases where implementation is at the regional level. Such coordination will help Morocco develop an optimal mix of central and regional activities and increase the likelihood that activities will have durable impacts.

APPENDIX A. US GOVERNMENT ASSISTANCE TO THE MOROCCAN AGRICULTURAL SECTOR

Following was from [USAID Morocco](#) Facebook posting

U.S. Government Assistance to the Moroccan Agricultural Sector

by [USAID Morocco](#) on Tuesday, April 27, 2010 at 10:16 am

United States Government (USG) involvement in agriculture in Morocco began on April 2, 1957 when the assistance in various sectors. While the U.S. Agency for International Development (USAID) was the first USG agency to provide assistance to the Moroccan agricultural sector, USG involvement in the sector has since evolved, in terms of both scope and the active participation of multiple USG agencies.

Early agriculture programs were designed to increase dry land farming productivity in the semi-arid regions of Morocco. The USG, through USAID, provided loans to the Government of Morocco for drought management. Later programs focused on capacity building, water management and irrigation, value chain development, fruit tree productivity, research in agriculture production and food safety and trade promotion assistance.

USAID estimates that a majority of the \$2 billion of its assistance to Morocco over the last 53 years has either directly or indirectly impacted the agricultural sector and rural sector-related human capital programs through cooperative agreements with U.S. educational institutions, participant training in the U.S., and U.S. agriculture and agribusiness technical assistance.

The Millennium Challenge Corporation Compact (MCC), which was concluded on August 31, 2007, has added an extremely important dimension to the long history of USG commitment to agricultural development in Morocco. Out of a total funding of almost \$700 million over five years, more than two-thirds is devoted to the agricultural sector, including fishing and the provision of financial services to small farmers and herders. MCC programs in Morocco are strictly implemented by Moroccan agencies, an essential ingredient of the MCC model.

Future development assistance to Morocco will focus heavily on work in the agricultural sector. The USG, through the MCC compact, will focus on improved productivity in the agriculture sector. USAID economic growth programs will also continue to work in niche agricultural policy areas, providing an important complement to the MCC program.

Capacity building

Historical Background

The USG, through USAID, focused on developing Morocco's agricultural extension service, helping train teachers in improved farming techniques. In the 1990s, USAID through the Morocco Agribusiness Promotion program helped create some 3,000 new jobs for unskilled and semiskilled laborers, about 80% of whom were women.

Human capacity building through training and degree programs in American universities in agriculture and other sectors has been an essential ingredient in the evolution of Moroccan social and economic

development. This has contributed to the development of the knowledge and professional expertise of a large number of Moroccan academics and public servants.

Much of the training effort focused on building scientific, management and technical competencies in agriculture and agribusiness. This work directly contributed to expanding the capacities of the National School of Agriculture in Meknes as well as the Hassan II Agricultural and Veterinary Institute in Rabat.

USAID also helped establish a functioning and sustainable research center (in Settat) and a critical mass of highly-skilled and motivated scientific staff. Morocco's excellent scientific training and extensive agricultural services, which support today's rapidly expanding agricultural export sector, are the fruit of this successful training partnership.

Current Programs

MCC programs in the agriculture sector also include an important training and capacity development component for a total value of about \$26 million. These include but not limited to conducting a comprehensive training for producers, their families, and producer associations on improved crop husbandry techniques and the creation, training and advisory support of farmer cooperatives in management, marketing, accounting, organization and access to financial services.

Technical assistance and training provided by MCC and USAID programs will enhance the ability of the Government of Morocco to successfully implement the major activities of agriculture programs and improve the capacity of civil society to oversee the management of such programs.

Water management & irrigation

Historical Background

As far as water is concerned, the Moulouya Basin irrigation project was among the first notable accomplishments of USAID in Morocco. Between 1960 and 1974, this \$40 million activity contributed to the construction of water projects such as the Mohammed V and Mechra Homadi dams, transforming thousands of hectares of semi-arid wasteland in the Oriental Region into productive use.

This water system continues today to contribute to the economic sustenance of the region and to the livelihood of more than 50,000 semi-nomadic people and their descendants. Agriculture programs continued throughout the 1970s, 80s and 90s, and focused on policy reform in the sector.

Over the period of 1999-2004, USAID took important steps towards establishing the Souss-Massa River Basin Agency as an operational and efficient water-management institution. Several pilot activities were completed: a telemetry system, which measures surface and groundwater stocks and flows; a drip irrigation demonstration site; the dissemination of information related to optimal water application by crop. The Government of Morocco expressed its interest to replicate the USAID water management model in other regions of the country.

Recent and Current Programs

USG involvement in the water sector in Morocco is also reflected in the work that the Moroccans will be doing with MCC funds. Over the course of the Compact period (2008-1013), MCC will support efforts to increase the efficiency of water use to enhance the yield and profitability of fruit tree production in the target areas.

For example, MCC funding will support irrigation infrastructure improvements (concrete lining of existing earthen canals; construction of diversion weir, storage basin and pumping stations; work on springs; and repair of subsurface drainage canals) and will provide assistance to existing agricultural water users' associations in operations, management, and maintenance of irrigation water distribution systems.

Also, the water component of the new USAID assistance program (2009 – 2013) will promote the optimal use of water resources to increase productivity, competitiveness and employment in the agricultural sector. Through its \$40 million new “Moroccan Economic Competitiveness Program” (MEC), USAID will support the Moroccan Government's water management and agricultural development plans to promote more efficient use of water, including: integrated management of water resources, waste-water reuse, irrigation financing, and energy efficiency.

In support of many initiatives implemented as part of Morocco's Plan Vert and the National Water Plan, the MEC Program will support the institutionalization of treated wastewater use in agriculture, promote agricultural value chains and help achieve decentralized management. To improve management of water resources at the watershed level, the Program will develop Management Information Systems (MIS) for the Water Basin Agencies (ABH) and the Regional Offices for Agricultural Development (ORMWA).

Value Chain development

Between 2004 and 2009, USAID, in close collaboration with the Ministry of Agriculture and Fisheries and the Ministry of Industry and Economy, contributed to the execution of integrated pilot projects in niche value chains such as olive oil, capers, beef red meat, berries and aromatic and medicinal plants.

Small farmers were at the heart of this program, with USAID conducting and sponsoring various national workshops for different cooperatives. These workshops sensitized farmers to the importance of professional organization, the integration of their activities, and marketing. The program generated about \$84 million (650 million dirhams) in sales and investments in the targeted value chains.

The Ministry of Agriculture has adopted the regional approach of USAID integrated value chains for generalization in all Morocco's regions. This value chain approach is now an important component of Morocco's new Green Plan. Capitalizing on USAID experience, MCC has also implemented a value-chain approach in all its projects and has been cited by the Minister of Agriculture as the model followed for some pillars of the Plan Maroc Vert.

Fruit Tree Productivity

The MCC Fruit Tree Productivity Project, worth \$300.90 million, aims at stimulating growth in the agricultural sector and reducing the volatility of agricultural production. This project will fund the intensification and rehabilitation of approximately 55,000 hectares (ha) of olives, fig, and almond trees, and the expansion of the same crops on approximately 120,000 ha in rain-fed areas.

This component intends to move small farms from high water-use, low-value cereal grains to low water-use, high-value and drought resistant commercial fruit tree species. In irrigated areas, the MCC project will support improvements to increase irrigation efficiency and productivity of olive and date trees across 43,000 ha. The Fruit Tree Productivity Project is expected to improve the livelihoods of approximately 136,000 farm households in rural areas of the northern, central and southern regions of Morocco. In addition, terrace construction is expected to create economic opportunities for approximately 11,000 agricultural laborers.

The MCC program is funding activities in other areas such as artisan crafts and small scale fisheries. Small business creation and growth will be supported also by investing in financial services and enterprise support.

Under the Small-Scale Fisheries Project, at a funding level of over \$116 million and implemented by the National Fish Office (ONP), MCC aims to develop up to 20 Fish landing sites, 13 port facilities, and 6 wholesale fish markets. MCC will also support 2,000 mobile fish vendors.

Research capacity in agricultural production and food safety

The USG, through the US Department of Agriculture's (USDA) Foreign Agricultural Service (FAS) works closely with the Moroccan Government, agricultural and scientific institutions to help build Morocco's research capacity and streamline regulations in areas related to agricultural production, trade and food safety. The FAS Office of Agricultural Affairs in the U.S. Embassy in Rabat coordinates USDA technical and scientific exchange programs such as the Cochran Program and the Norman Borlaug Fellowship program. The FAS works closely with other USG agencies to enhance the overall bilateral relations between Morocco and the United State in the agriculture sector.

Trade promotion assistance

The USG, through its Foreign Commercial Service at the U.S. Consulate General in Casablanca, offer trade promotion assistance to both American companies and Moroccan importers in different fields, including agriculture. The commercial service promotes various trade shows in the U.S. Its commercial specialists in Casablanca organize and accompany Moroccan delegations of businessmen to attend these shows and meet with U.S. companies.

Veterinary Civic Action

The USG, through the US Embassy Humanitarian Affairs Team, is also providing much needed medicine to Morocco's livestock that the local populace depends upon for survival. The Veterinary Civic Action Project (VETCAP) is an event that has been occurring approximately every six months since early 2008. The recent iteration in March 2010 was the fourth of the kind in the Kingdom. The Humanitarian team has partnered with the MJID Foundation on three of the four events. More than 75,000 animals have been inoculated against disease as a result this program.

End April 2007 information from the USAID Morocco Facebook posting.

More details on the MEC Program

“DAI/Nathan Group Awarded Morocco Economic Competitiveness Program

The DAI/Nathan Group is excited to announce the award of the Morocco Economic Competitiveness (MEC) project. A four-year USAID program with an additional option year that would take the project's funding to \$34 million, MEC takes a multi-sectoral approach to reduce barriers to productivity, trade, and investment in Morocco. (Note from evaluator: as of 2012, this is a 4-year program with \$23M). MEC will have three components:

- **Improving the economic enabling environment:** continuing work begun under DAI's Improving the Business Climate in Morocco program, this component includes simplifying administrative procedures, reforming the commercial registry and the legal framework for collateral registry, reforming the court process for insolvency, and promoting alternative dispute resolution.

- **Using water sustainably for agricultural growth:** building on DAI's work under the regional Advancing the Blue Revolution Initiative, and also on work begun under Integrated Agribusiness Program, this component will include reusing wastewater, managing river basin water resources, and supporting more efficient agriculture water management practices. Export promotion and value chain activities will be carried out as part of Morocco's public-private framework for agricultural development in two target regions.
- **Strengthening workforce development:** this component involves matching skills with private sector demand for labor in agricultural or export sectors.

Using a 21st-century definition of competitiveness and given the economic and environmental dimensions of the project, DAI has proposed that MEC's implementation be entirely carbon neutral.

The Morocco Economic Competitiveness program (MEC) of the U.S. Agency for International Development (USAID) aims to reduce obstacles to trade and investment by improving many economic and social fields.

This program aims to promote the economical Morocco development, and develop productivity through major areas such as the food industry, trade, investment and entrepreneurship.

The program MEC has many partners both nationally and locally in target regions: Doukkala-Abda and the Oriental region. It also has an experienced team, made of Moroccan and American engineers.

Technical areas of the program can be divided to three major areas:

1. Business climate which will be improved through a set of legal and regulatory reforms in order to boost trade morocco, and increase the investment rate.
2. Water and Agriculture: the goal is to promote agriculture trying to enhance productivity, trade, and employment through the optimization of water resources use. Agricultural development stimulates exports of agricultural and agro-processed products as well.
3. Workforce: the improvement of economic activities relies also on a strong labor force, so incorporating essential requirements to increase competitiveness is indispensable to achieve this goal.

In collaboration with regional and national partners, the projects are implemented in order to meet with the main objectives by supporting reforms, strengthening institutional capacities and involving the private sector.

Legal and regulatory reforms:

1. The MEC program supports the Moroccan government to modernize the Commercial Register and to establish the Common Business Identifier.
2. Pricing policy and water-saving agriculture, Treatment and reuse of wastewater in agriculture, Access to financing and agricultural water conservation, Improvement of energy policy to support the optimization of water use in agriculture
3. Labor market and the renewable energy sector

Strengthening institutional capacity

1. The Regional Surveys on the Business Climate, Pilots Projects resulting from the Regional Surveys, Deployment of e-invest in two Moroccan regions

2. Support for an institutional and operational framework for wastewater reuse in agriculture, Support for the Maroc Plan Vert, New information technologies supporting water resource management, Support for the delegated management of the irrigated perimeter of Doukkala-Abda
3. An information and communication system for vocational training, Support youth employability in the pottery sector

Increased private sector participation

1. Improve the competitiveness of key sectors, improve access to markets (in particular the U.S. market), Measure trade, Support territorial marketing, Develop a system for the dissemination of wholesale prices of agricultural products
2. Strengthening organizational capacity, management, and governance of small farmers, Promoting water conservation in the agro-processing industry, Optimization of water in small farms through the development of local products (produits du terroir)
3. Professional integration and skill building among the workforce currently employed in dairy businesses, Support for the commercialization of Safi pottery in the domestic and international markets, Support for youth self-employment in the pottery sector

The MEC program has also many pilot projects. The program promotes an approach integrating its three components which are: Improving the Business Climate, Water and Agricultural, and Professional Capacities or workforce).

These pilot projects are still being reviewed by the program and will soon be unveiled and put online.

The grant mechanism is meant to support Morocco's civil society and its private sector. It's estimated around 5 million U.S. dollars. The assistance will take the form of direct financial support or in-kind subsidies, through cash advances or on a reimbursable basis.¹⁷

¹⁷ MEC summary Article Source: <http://EzineArticles.com/6639855>.

APPENDIX B. CHECKLIST PRIOR TO INTRODUCING USAID PROGRAMS

Marketing and competitive conditions change frequently; it is difficult to identify the right sectors and actions for intervention years in advance, but the following is a checklist of questions to consider for USAID agricultural programs in Morocco:

1. What are the Government's plans and priorities?
2. What are the ideas of private associations and other stakeholders on the best opportunities for win-win improvements that would benefit poor farmers and make the agriculture/agribusiness system more efficient and competitive?
3. What are USAID capabilities in terms of expertise and funding levels that mesh with host government priorities and technical needs?
4. Include linkages to key universities, associations, government centers of expertise.
5. Assuming funding levels remain modest (under \$30M over five years) where can USAID start something, complete it and make a difference – perhaps a segment of a larger effort that has durability?
6. What are others doing? This should be part of the initial planning strategy before a final commitment to an activity or a value chain.
7. What is the likely impact on poor farmers, and how many will likely be affected?
8. What will be the lasting impact when the project ends, and who will take over activities?
9. Is there an aggregator willing to take a leading win-win role with farm organizations? What do they want in terms of help and what will they put in?
10. What are the political aspects – challenges with US interests and the Bumpers Amendment?
11. What host government regulations should be changed in the view of industry associations, and what are the prospects and timetables for completing those changes?

APPENDIX C. BIBLIOGRAPHY OF MAIN WRITTEN SOURCES CONSULTED DURING EVALUATION AND ASSESSMENT

(Note companion report – IAA Evaluation report contains list of evaluation team contacts during the May/June 2012 evaluation trip).

Documents provided by Chemonics:

- Analyse de la Filière des Petits Fruits Rouges dan la région du Gharb-Loukkos – Guide technique.
- Assessment of transportation and logistics issues facing berries producers/exporters in northern Morocco, Chemonics, and IAA/report of January 2009-IAA 2007 Annual Report.
- IAA quarterly reports 2008, 2009.
- IAA 2008 Annual Report.
- IAA Narrative on indicators.
- Pack Info no 64 Dec 2007 «Le Programme “Agriculture et Agrobusiness Intègres” appuie la certification EurepGAP pour la protection de fraise.»
- Établissement Autonome de Contrôle et de Coordination des Exportations (EACCE - Autonomous Establishment of Export Control and Coordination).
- Actualite' Export, Revue Trimestrielle, Campagne 2010-11 No 30, Etablissement Autonome de Contrôle et de Coordination des Exportations Dossier du mois – (strawberries – exports by markets and import regulations in Europe, on CD provided by EACCE – no date).
- Les Conserves de Câpres, Etudes Economiques, EACCE, (on CD provided by EACCE – no date but has 2007 export data).

USAID Morocco Economic Competitiveness Program (MEC) reports:

- Export Opportunities for Moroccan Processed Foods: Trip Report: MEC Document 48 April 2011.
- Grants Manuel, MEC Document.
- Feasibility Study for Organizing and Training “MOQAF” Farm Workers in Berkane MEC Document 49, April 2011, September 2010.
- Market-Driver Export Development to Accelerate Moroccan Economic Competitiveness MEC Document 11 May 2011.
- MEC Pesticide Evaluation Report and Safe Use Action Plan MEC document 25 November 2010.
- Morocco Agriculture Investment Financing and Water Efficiency: Program Environment and Project Opportunities 2010, MEC Document 13 July 2010.
- Morocco Economic Competitiveness Compte Rendu des Ateliers de Travail de l'Axe 3 Renforcement des Capacités Professionnelles, Mec Document 17 August 2010.
- Performance Management Plan 2010, MEC Document 40 Dec 2010.
- Moroccan Ministry of Agriculture Documents and statistics: <http://www.agriculture.gov.ma>.

- Secteur de l'Agroalimentaire Région de l'Oriental, Etude Exploratoire sur l'Offre et la Demande de Main-d'Œuvre Qualifiée MEC Document 6 J'UNE 2010-Situation de l'Agriculture Marocaine, No 9 Nov 2011 – Le Conseil du Développement Agricole, Rabat.
- Stratégie Agricole Premières perspectives de la stratégie agricole, Le Maroc Vert, Ministère de l'Agriculture, Avril 2008.
- Plan du Maroc Vert, Agence pour le Développement Agricole, Ministère de l'Agriculture et de la Pêche Maritime, Copyright 2009.

US Department of Agriculture (USDA) reports:

- Citrus Annual Gain Report, no MO 1113 12/1/2011 USDA/FAS, December 1, 2011.
- Retail Foods Morocco USDA Gain Report MO 1116, December 21, 2011.
- Grain and Feed Report Gain Report MO 1204, USDA, March 12, 2012.

Other Documents:

- Banque International pour la Reconstruction et le Développement, Premier Prêt de Politique de Développement d'Appui au Plan Maroc Vert, le 3 février 2011, Rapport no 59499-MOR.
- Food and Agriculture Organisation, United Nations: «Principales réalisations depuis l'ouverture de la Représentation de la FAO à Rabat en 1982», FAO, Juillet 2011.
- Group Crédit Agricole du Maroc, “Tamil El Fellah” – undated brochure on credit program for smallholders.
- Marocagriculture (Journal) «Production des Câpres, Tous Ensemble Pour un Maroc Vert» www.Marocagriculture.com, June 1, 2012.
- Maroc Hebdo International, «Les Principaux Projets Pilotes par la FAO au Maroc», Spécial SIAM 2012, 25 Avril à 3 May 2012.
- Millennium Challenge Authority/Millennium Challenge Corporation: “Fruit Tree Productivity, Agency of Partnership for Progress,” MCA/Morocco, MCC www.app.ma/en/index.
- Office of Inspector General, USAID “Audit of USAID/Morocco’s Economic Competitiveness Project,” Audit report no 7-608-12-002-P, December 15, 2011.
- Rachidi, Fouad, Summary of Irrigation Projects in Morocco (unpublished summary from Fouad Rachidi – MEC, former IAA Technical Director) May 2012.
- Ryder, F.D., Office of the General Council, USAID, “Legal and Policy Considerations for US Trade and Investment Activities,” October 23, 2008.
- Schilling, Janpeter, Korbinian, P Freier, et al., Climate change vulnerability and adaptation in North Africa, Agriculture, Ecosystems and Environment 156 (2012 12-26) April 25 2012.

- Spanish Embassy: “El sector de la Agricultura en Marruecos: inversión para empresas españolas agrícolas, Marruecos, Evolucion prevista de la AOD 2007-2011” (Embajada de l’Espagne, Maroc), Institute Espanol de comercio Exterior, Embajada de Espana en Rabat, Agosto de 2010.
- USAID: Assistance to the Moroccan Agricultural Sector, Facebook submission by USAID Morocco, April 27 2010.
- World Bank: Document de Programme pour une Proposition de Prêt d’un montant de 150 Millions d’Euros Consentí Au Royaume du Maroc pour Un Premier Prêt de Politique de Développement d’Appui Au Plan Maroc Vert (Version Négociation) Report 58499- MOR, La Banque Mondiale, 3 Février 2011.
- World Trade Organization: «Examen des Politiques Commerciales, Organisation Mondiale du Commerce» OMC, WT/TPR/S/217 8 Mai 2009.
- Audit of USAID/Morocco’s Economic Competitiveness Project, Audit report no 7-608-12-002-P, Office of Inspector General, USAID, December 15, 2011.
- Schilling, Janpeter, Korbinian, P Freier, et al., Climate change vulnerability and adaptation in North Africa, Agriculture, Ecosystems and Environment 156 (2012 12-26) April 25 2012.