

Yemen strategy

Agriculture sector input

Sector overview and challenges

Yemen continues to be one of the least developed countries in the world with a per capita GDP of less than \$1000. Yemen's low economic performance is a direct reflection of its heavy dependence on agriculture. Agriculture provides about 50% of all employment, while accounting for about 15% of GDP.

Yemen's agricultural output is derived mostly from production of rainfed and irrigated crops, livestock (little from forestry and fisheries). Out of a total of 1 million hectares of agricultural land, slightly more than half is rainfed agriculture (mostly cereals), the other half being irrigated agriculture, mostly from wells. Irrigated crops include fruits and vegetables (20%) fodder crops (20%), of course qat (30% if not more) and others. Roughly speaking, a quarter of agricultural value comes from livestock, another quarter from all crops except qat which provides almost half of agricultural value.

Yemen has long been a significant net importer of agricultural products. Faced with its significant population growth, the net import bill has increased over time to reach today about \$1B a year. In the past, cereals (mostly sorghum) were grown when agriculture was rain- or spring-fed. The advent of pumps and tubewells in the 1970s has allowed irrigation to develop and led to the growing of fruits and vegetables, fodder crops (and unfortunately qat). While the need to import fruits and vegetables has disappeared, the dependence on imports for grains and other food crops has increased dramatically (over 80% today).

Irrigated agriculture: despite the attention that has been paid to irrigation, both by the government and by donors, productivity is still comparatively low, with yields half or less of what could be obtained with proper quality genetic materials, actual extension advice and use of appropriate inputs. Marketing of irrigated crops is also weak, with deficient post-harvest handling procedures (up to 50% losses), limited capacity to pack and grade fruits and vegetables for exports, and an overall lack of market information.

The efficiency of groundwater use could be greatly improved by the dissemination of drip irrigation (80-90% water efficient) to replace common but inefficient surface flooding (at best 50% water efficient). It is however simplistic to assume that such water savings would mitigate the current over-pumping of aquifers. For at least two reasons:

- Irrigation losses are though seepage, which de facto recharge the aquifers and are thus not entirely losses;
- Water savings are often used by farmers to irrigate more lands, thus increasing production but continuing the groundwater over-withdrawal.

Rainfed agriculture

Agricultural research in Yemen has mostly focused on irrigated agriculture and neglected rainfed crops. Most of the varieties used in rainfed areas are local and adapted to the

limited and unpredictable availability of moisture but have low yields. Improved locally selected seeds for wheat, barley, sorghum, legumes have been developed but not disseminated properly. The lack of support to rainfed agriculture has also led to the deterioration or abandon of traditional terrace systems.

However it is expected that in the near future, the decline of groundwater irrigation may bring some farmers back to rainfed crop production due to its greater sustainability.

Livestock

Sheep and goat herding is a stable and sustainable activity for poor farms and notably rural women farmers, notably in rain deprived areas (even failing crops can provide forage). Smallholder livestock production suffers from severe constraints on forage and feed availability and from widespread animal diseases. While some genetically improved animals have been developed, no provision again has been made to makes such animals available to producers. Similarly little research on improved feeds means that livestock relies primarily on overgrazed range lands.

Agribusiness

Yemen's agribusiness sector, while still not large or diverse, has significantly expanded in the last 15 years, thanks to the disappearance of many market distortions (import/export bans/quotas, tariffs and subsidies), and an expanded surplus in fruit and vegetable production. Yemen has now several well-organized, multiproduct and multi-service private agribusiness companies, notably in Hodeidah, Sana'a and Taiz. Some of these companies are export oriented (coffee, fruits and vegetables) but processing into juices and pastes tends to be located overseas.

The poultry industry is the most significant and concentrated agribusiness in Yemen, with producers having large hatching capacities, importing feed ingredients, owning production units and also working with farmer clients.

Input supply companies account for the largest number of private agribusinesses in Yemen. Inputs include commercial seeds, fertilizers and pesticides and veterinarian products. Distribution occurs through company representatives or private agents and retailers in major cities. Constraints faced by the private sector agribusinesses (and involving extra costs) include poor road network, inadequate post-harvest quality procedures, lack of laboratories for plant and livestock disease control.

Donor assistance

USAID has been recently active in the sector through the Yemen Agricultural Support Program (YASP). This program has focused on improving animal and crop farming practices, to increase production, market opportunities and rural employment.

YASP has achieved excellent results despite overcoming challenges and security hazards. Among other achievements:

- 17,000 farmers received training on better agriculture production practices, pest protection, reduction in post-harvest losses and food-processing techniques;

- 11,500 farmers benefitted from increased animal production and crop yields;
- 4,500 farmers (mostly women) were trained on tomato paste production, olive preservation, and milk processing;
- Almost 2,000 full-time jobs and 11,000 part-time jobs were created; etc.

The program's successes were notably acknowledged by the Ministry of Agriculture and Irrigation and stem from:

- Strengthening both agricultural production and marketing;
- Using a collaborative approach by involving communities, public institutions, and the private sector to support demand-driven activities; and
- Complementing the above activities with small grants to address poverty and despair, often roots of conflict.

The only other donor present in the agricultural sector in a significant way is the World Bank. [need to describe their activities]

Recommendations for strategy, opportunities for USAID support

USAID/Yemen is at a crossroads in its support to the agricultural sector in Yemen. With the end of YASP, no funds were allocated in FY08 to agricultural activities. The renewed focus of USAID on Yemen should be reflected in FY09 with a reengagement in the agricultural sector as a major provider of livelihoods in the country. Implementing agricultural activities should be an essential component of any development agenda in Yemen as it can directly address poverty and provide fast impacts in terms of job creation and income generation.

USAID has a strong history of working in agriculture and rural development in Yemen since the 1970s and is generally well perceived by the Ministry of Agriculture and its agencies. USAID has special strengths in providing technical assistance to support agribusinesses, applied research, agricultural policy reform, trade promotion and competitiveness, etc.

USAID should implement activities that can improve rural incomes by increasing agricultural productivity and creating economic value. These activities should promote agricultural development, be community-based and demand-driven, and favor empowerment and technical assistance over infrastructure building. They should target the entire agricultural value chain and thus focus on:

- Improving seed dissemination and post-harvest processes;
- Supporting decentralized extension services;
- Partnering with agribusinesses;
- Providing market information and quality control techniques to farmers and linking them to agribusinesses;
- Building capacity, notably among youths, women and other marginalized groups;
- Using grants to provide growth opportunities;

Some specific improvements/recommendations over the YASP model are to:

- Include poverty alleviation activities such as construction of rural water supply and sanitation systems when needed;
- Focus on rainfed areas as well as on irrigated areas;
- Improve water management as it relates to agricultural productivity (irrigation scheduling, canal O&M, etc.)
- Ensure cost-sharing as much as feasible;
- Possibly consider some kind of cost recovery mechanisms so as to replicate activities;

At this point, it should not be a priority to support agricultural policy reform as it is more of a long-term effort without immediate stability benefits.