



USAID
FROM THE AMERICAN PEOPLE

ENHANCING GOVERNMENT EFFECTIVENESS IN YEMEN: AN ASSESSMENT OF THE MINISTRY OF AGRICULTURE AND IRRIGATION

JULY 2008

This report was produced for review by the United States Agency for International Development. It was prepared by Dr. Adly Hassanein.

ENHANCING GOVERNMENT EFFECTIVENESS IN YEMEN: AN ASSESSMENT OF THE MINISTRY OF AGRICULTURE AND IRRIGATION



Management Systems International

Corporate Offices

600 Water Street, SW
Washington, DC 20024

Contracted under USAID Contract ID #: DFD-I-04-05-00221-00

Task Order #: DFD-I-04-05-00221-00

Project Name: Enhancing Government Effectiveness

DISCLAIMER

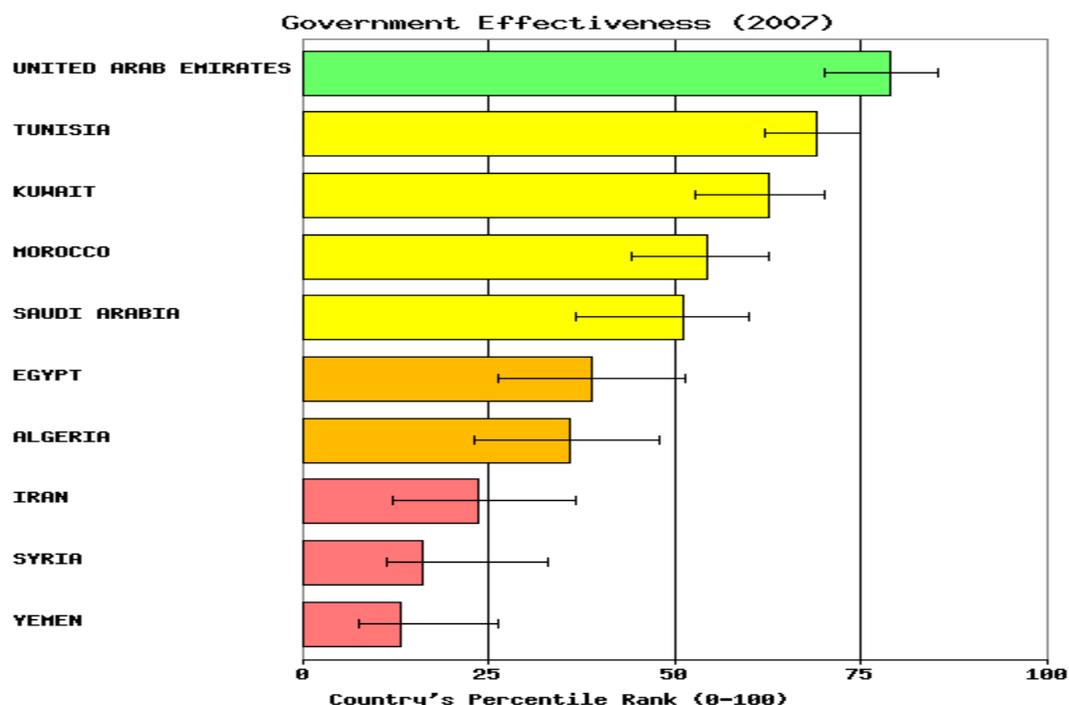
The views expressed in this publication are the author's and do not necessarily reflect the views of the United States Agency for International Development.

CONTENTS

- I. INTRODUCTION 4**
- II. MEASURING THE EFFECTIVENESS OF THE MINISTRY OF AGRICULTURE AND IRRIGATION..... 6**
- III. ASSESSING THE EFFECTIVENESS OF THE MINISTRY OF AGRICULTURE AND IRRIGATION..... 9**
 - Effectiveness at the Individual Level..... 9
 - Effectiveness at the Organizational Level 10
 - Effectiveness at the Institutional Level..... 18
- IV. PREVIOUS EFFORTS AT ENHANCING THE MINISTRY’S EFFECTIVENESS..... 19**
- V. RECOMMENDATIONS..... 23**
- APPENDIX 1: LIST OF MEETINGS 28**
- APPENDIX 2: BIBLIOGRAPHY 30**

I. INTRODUCTION

The effectiveness of government ministries and agencies is critical for a state's ability to reduce poverty and create enabling conditions for growth. Nowhere is this more critical than in Yemen, which the World Bank considers “the single largest development challenge in the Middle East”.¹ At present Yemen ranks below the 15th percentile in the world in terms of government effectiveness (see figure below).



Source: Kaufmann D., A. Kraay, and M. Mastruzzi 2008: Governance Matters VII: Governance Indicators for 1996-2007

Note: The governance indicators presented here aggregate the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, and international organizations. The aggregate indicators do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources or for any other official purpose.

The challenge of enhancing government effectiveness in Yemen is evident in the **Ministry of Agriculture and Irrigation (MAI)**. In recent months, Yemen has experienced a doubling of prices for wheat and wheat products, contributing to protests in the capital that saw as many as a dozen people killed. The increase in the prices of basic commodities has been widely felt because the country imports 80% of its cereals, which makes the country highly vulnerable to external shocks. In addition, the continuing drought in the country has been punishing for the agricultural sector, which has depressed farm outputs and exacerbated high prices. The World Bank estimates that the recent crisis has “increased national poverty by 6 percentage points”,

¹ World Bank, Yemen Country Brief, www.worldbank.org.

adding that “if no action is taken, this could fully reverse the gains in poverty reduction between 1998 and 2005.”²

In a predominantly agricultural country, a Ministry of Agriculture would normally be a leading institution to ensure the growth and vitality of the sector. This is a tremendous responsibility for an agriculture ministry because about 79% of the country’s households are dependent on farming and livestock as their principal source of income. Over 55% of the labor force is estimated to be in the agricultural sector. However, as this report shows, Yemen’s MAI is far from a leading actor in the sector. It has, in many respects, become a peripheral player.

The ineffectiveness of the MAI has arguably been a factor in the country’s poor agricultural performance. Agriculture’s contribution to GDP is only about 15%, a notably low figure considering the scope of the sector in the economy. Part of the problem is the persistence of traditional agricultural methods in farm production. New tools are available to preserve water and enhance water quality but their costs are prohibitive for the ordinary farmer.

Finally, the crisis in the agricultural sector is also reflected in the Ministry’s inability to address the growing issue of qat production, which is crowding out the production of grains and diverting water from food crops. As the best-selling cash crop in the country, qat is viewed as a better investment by its farmers than food crops. The Agriculture Ministry estimates that about 141,000 hectares are devoted to qat, which is greater than the amount of land planted for wheat, which is estimated between 100,000 to 140,000 hectares.³

To be sure, there are voices in the Agriculture Ministry that are pushing for the Ministry to exercise leadership to address these agricultural problems. Ismail Muharam, director of the General Authority for Agricultural Research admits that “we’re late in solving the food crisis, but it’s not too late. There must be a practical law to stop poor irrigation and limit the growing of qat.” Muharam adds that “the Agriculture Ministry is responsible for this and must start working to find something (to solve the problem).”⁴

In conducting an assessment of the Ministry of Agriculture, the EGE project seeks to assist the Ministry in understanding the causes of its lack of effectiveness and to recommend measures to enhance its organizational capacity to effectively address the problems of the agricultural sector.

² World Bank, “Food Crisis in the Middle East and North Africa,” online at <http://go.worldbank.org/CWP25TV4P0>.

³ “Qat planting leads to Yemen Food Crisis”, *Yemen Times*, Issue: (1165), Volume 18 , From 19 June 2008 to 22 June 2008. See also World Bank, “Yemen – Towards Qat Reduction”, June 2007. This study discussed other economic and social ills attributed to Yemen’s growing qat production and consumption.

⁴ Ibid.

II. MEASURING THE EFFECTIVENESS OF THE MINISTRY OF AGRICULTURE AND IRRIGATION

At the outset, Yemen presents a complex political and institutional landscape in which to assess the effectiveness of an agriculture ministry. It was evident from our initial review of documents that the Ministry's performance is significantly dependent on the actions of other governmental and specialized organizations. These include the Ministry of Finance, the Ministry of Civil Service, the Ministry of Planning, the Ministry of Higher Education and the Ministry of Local Governance. In this report, we explain how the MAI's work is affected by its institutional relationships with other ministries.

Beyond the impact of other organizations, understanding the work of the MAI requires an appreciation of the incentives that shape the decision-making and behavior of public officials in both the top echelons and rank-and-file. While there are official rules of the game, so to speak, there are also unofficial rules that are quite powerful in shaping how the game is played. An understanding of the interplay between these official and unofficial rules is critical to designing and delivering effective interventions that can enhance the MAI's performance. We begin by looking at the how the Ministry has made (or not made) an impact in the agricultural sector.

Among the fundamental goals of any agriculture ministry is ensuring the availability and accessibility of agricultural products for the health and well-being of society. In 2003, the government undertook the country's first Food Insecurity and Vulnerability Information Mapping System (FIVIMS) survey. This survey, the largest and most representative ever undertaken in Yemen, provides data on the prevalence of household food insecurity and vulnerability, the distribution of those who are food insecure, the coping strategies employed by households, and the intra-household impacts of food insecurity. The survey was carried out in all 20 governorates and 280 districts of the country.

The FIVIMS survey findings indicate that close to half of all survey respondents in Yemen, representing 1.7 million households, are generally food insecure. These households reported that at some point in the past year, they had not been able to afford to eat what they usually do. Additionally, approximately 500 thousand households, representing 21.7 percent of all households, are food insecure with hunger, meaning that one or more household members skipped a meal or went an entire day without eating for lack of food at some point during the previous year (see Tables 1 and 2).

Table 1: Number and proportion of households that could not afford to eat what they normally eat, by governorate (General Food Insecurity)

Governorate	Households Could NOT Afford to Eat What They Normally Eat		Households Could Afford to Eat What They Normally Eat	
	Number of Households	Percent	Number of Households	Percent
Ibb	163,251	60.2%	108,102	39.8%
Abyan	21,084	40.3%	31,285	59.7%

Sana'a City	47,409	27.4%	125,602	72.6%
Al Baida	25,491	41.9%	35,299	58.1%
Taiz	152,973	47.0%	172,253	53.0%
Al Jawf	28,783	49.4%	29,464	50.6%
Haja	115,726	66.2%	58,993	33.8%
Al Hodeidah	172,733	54.5%	144,245	45.5%
Hadramout	50,213	43.6%	64,911	56.4%
Dhamar	81,400	47.7%	89,135	52.3%
Shabwah	42,612	85.6%	7,171	14.4%
Saadah	53,401	69.8%	23,140	30.2%
Sana'a	51,425	31.2%	113,496	68.8%
Aden	27,485	35.0%	51,067	65.0%
Laheg	35,469	36.1%	62,780	63.9%
Mareb	9,628	42.0%	13,272	58.0%
Al Mahweet	29,275	47.4%	32,478	52.6%
Al Mahrah	7,654	50.4%	7,526	49.6%
Amran	37,426	38.8%	59,066	61.2%
Al Daleh	14,659	27.9%	37,969	72.1%
Total	1,168,094	48.0%	1,267,255	52.0%

Table 2: Number and proportion of households that are food insecure with hunger, by governorate

Governorate	All Food Insecure Households		Food Insecure Households with Moderate Hunger		Food Insecure Households with Severe Hunger	
	Number of Food Insecure Households	Percent	Number of Households	Percent	Number of Households	Percent
Ibb	79,726	29.40%	46,602	17.20%	33,124	12.20%
Abyan	6,640	12.70%	3,192	6.10%	3,448	6.60%
Sana'a City	13,460	7.80%	9,506	5.50%	3,954	2.30%
Al Baida	14,890	24.50%	7,023	11.60%	7,867	12.90%
Taiz	63,886	19.60%	54,725	16.80%	9,161	2.80%
Al Jawf	13,906	23.90%	5,194	8.90%	8,712	15.00%
Haja	62,897	36.00%	34,106	19.50%	28,791	16.50%
Al Hodeidah	78,567	24.70%	60,034	18.90%	18,533	5.80%
Hadramout	19,184	16.60%	13,270	11.50%	5,914	5.10%
Dhamar	32,845	19.20%	19,661	11.50%	13,184	7.70%
Shabwah	21,654	43.50%	16,635	33.40%	5,019	10.10%
Saadah	30,540	39.90%	16,032	20.90%	14,508	19.00%
Sana'a	15,867	9.60%	8,617	5.20%	7,250	4.40%
Aden	11,481	14.60%	5,171	6.60%	6,310	8.00%
Laheg	22,629	23.10%	11,656	11.90%	10,973	11.20%

Mareb	3,713	16.20%	2,053	9.00%	1,660	7.20%
Al Mahweet	9,160	14.90%	6,275	10.20%	2,885	4.70%
Al Mahrah	4,439	29.30%	2,820	18.60%	1,619	10.70%
Amran	14,680	15.20%	8,881	9.20%	5,799	6.00%
Al Daleh	7,074	13.50%	4,088	7.80%	2,986	5.70%
TOTAL	527,241	21.70%	335,542	13.80%	191,699	7.90%

According to the FAO, between 1999 to 2001, *6.1 million people (33% of the Yemeni population) were considered undernourished* (receiving less than 2200 Kcal/day), compared to only 4.2 million in 1990-92. In comparison with the ANE region, Yemen has some of the worst child nutritional indicators. It has the highest rate of low birth weight babies (19%), the highest rate of under-fives suffering from being underweight (46%), including severe underweight (15%) and stunting (53%).⁵

The situation looks even bleaker when comparing the rise of the prevalence of *stunting* among the under-fives in Yemen over the past years. National studies report that stunting was 33.7% in 1983, rose to 44.1% in 1992, to 51.7% in 1997, and to 53.1% in 2004 (with severe stunting at 30.9%). Such a deterioration of the nutritional status of children puts Yemen in a situation similar to that of countries in emergency. The scale of the nutritional problem in Yemen is one of the most pressing issues facing the country.

Besides the effects that poor nutritional status has on the well being of children and the high rates of child mortality and morbidity it causes, the economic loss inflicted on the country in terms of productivity is very high. The World Bank estimates that stunting in childhood alone causes a loss of 6 to 8% of adult work productivity. This means that if the income per capita per year is US\$1000, the stunting of one million children will cause a direct loss of US\$60 to 80 million, not including losses related to medical expenses incurred for treating malnutrition-caused diseases. In Yemen's case, where 53.1% of the under-fives were stunted according to 2001 statistics, the economic yearly loss for the country when these children become adults is estimated between US\$87.9 and 117.2 million.

Apart from nutritional indicators that reflect poorly on the government's ability to provide basic food for its people, other figures also suggest similar disheartening results. According to FAO statistics, between 1985-1989 and 1999-2003, the total cereal area showed a negative evolution trend of -2.4% for the last 18 years, based on 5-year rolling averages, while the total cereal production for the same period presented a decreasing trend of -0.9% per year. The average domestic cereal production in 2001-2004 was 559,000 tons, *covering only 20% of the domestic demand* estimated at 2.753 millions tons, while coverage by domestic production was around 33% of domestic demand in 1992. By 2003, Yemen's domestic cereal production decreased to 417,000 tons. As a result, Yemen imports most of its cereal food needs to fill the consumption demand – a situation that has left it extremely vulnerable to the current spike in global prices of grains and other commodities.

⁵ Food and Agriculture Organization (FAO).

In this context, it is difficult not to reach the conclusion that Yemen's MAI has not been able to improve the agricultural sector across different indicators, including most importantly food security. The question that needs to be asked, rather rhetorically, is this: is the Ministry part of the problem, or is part of the solution?

III. ASSESSING THE EFFECTIVENESS OF THE MINISTRY OF AGRICULTURE AND IRRIGATION

We assess the effectiveness of the Ministry of Agriculture and Irrigation on three levels: individual, organizational, and institutional. It is the premise of our analysis that a ministry's ability to be effective is contingent on the interplay of forces at work in and across the aforementioned levels.

Effectiveness at the Individual Level

At the individual level, we are interested in understanding issues pertaining to the capacity of a ministry's personnel. The questions under consideration include: *Is there a lack of basic individual skills that constrain organizational effectiveness? Why or why not?* In this regard, we examined the Ministry's human resources condition.

In our visit to the Ministry, we found that **the Ministry maintains only a basic inventory of its human resources**, which merely shows the dates of appointment and anticipated retirement, and the qualifications of each of the MAI staff.. Common among the departments of the Ministry is the lack of computers and IT equipment.

In our review, we found the **MAI and practically all of its agencies overstuffed**. An FAO project report indicated the ratio of supporting staff to the professional staff at 7:1, while in the best case scenario it recommended a ratio that should not exceed 2:1. According to the labor force report prepared by the General Directorate of Personnel Affairs and Training, the total number of MAI employees is 14,375 civil servants, with 1,427 working in the head office in Sana'a. The number of employees with university degrees (undergraduate and graduate) and with specialized professional training represents 20% of the total MAI work force. Employees with only high school diplomas represent 14%, and those with middle school and under represent 66%. The majority of the qualified and professional personnel in the MAI and its agencies are located in Yemen's main cities.

The **total number of female employees working in all agricultural units in the Ministry is 1,358 women; a figure that represents less than 10% of the total MAI work force**. The total number of professional female employees (i.e., B.Sc. level and higher) is about 175, representing only 8% of MAI's total professional employees. Furthermore, units with women either do not exist or are underrepresented in many governorate-level Agriculture Offices. This situation is unfortunate because the Ministry is supposed to be targeting women farmers, as they are primarily responsible for food crops and livestock. In a society where women are not on the same footing as men, it is imperative to have women interlocutors in the implementation of policies and programs. The increased focus on women in the Ministry is reflected in the 1999

decision to upgrade the Rural Women's Development Department (RWDD) to the Rural Women's Development General Directorate (RWDGD), thus allowing the Director to participate in policy meetings. This signaled the relevance and recognition of women's and gender considerations at a high level in the MAI. However, reality has not caught up with the rhetoric.

With respect to personnel qualifications, the situation is no less troubling. We found that **the total number of illiterate and non-educated MAI employees is 4,409, which represents more than 30% of the government work force in the agriculture sector.** In addition, we were told that **there are about 2,348 ghost employees who are on the Ministry's payroll,** taking their salaries without showing up for work at all. When about third of a Ministry's personnel cannot read or write, and another 15% are ghost workers, it is abundantly clear that the Ministry exists to do other things besides improving the agricultural sector. It is, in essence, an employment program where employment is not done on the basis of merit, but purely for jobs generation and by extension, patronage. This situation flies squarely against the government's agricultural policy as outlined in the Aden Agenda that called for a significant reduction of MAI staff, equal to 37% of the existing level. The Aden Agenda also advocated specialized training programs, skill enhancement, recruitment of female professionals and the reallocation of savings from staff reduction to operating budgets for field services, training and compensation payouts for reduced staff. It is clear that these goals are not being actively pursued.

In addition, we were told that the Ministry had planned its own training program to enhance the skills and build the capacity of its human resources, but it was not implemented for lack of resources. However, there were some training programs implemented through foreign-funded projects but these did not fall under an HR development strategy, but rather, were limited and isolated opportunities. We were also told that special and sometimes corrupt relationships are governing the final selection of candidates for national and international training opportunities. During our meeting with several Ministry staff we were informed that a limited number of high ranking officials are repeatedly favored by the administration for overseas trips.

In addition, compensation and incentives are not a serious consideration in the management of the Ministry. We were told that employees receive incentives just for doing their jobs, as well for performing special requests and personal services of their bosses. Also, to our surprise, we were informed that **even ghost employees were receiving cash incentives.** Some interviewees reported that hiring new staff was easy, particularly if they are related to top government officials or can afford to pay a finders' fee of between US\$2,000 to \$3,000. Coincidentally, even in cases of low performance or absence from work, it is reportedly impossible to be fired. It is not surprising that this environment does not have in a place an active system for performance appraisals or promotions at any management level.

In sum, the weaknesses in the Ministry's human resources environment, its porous employment system, its mediocre salary scale, and its distorted compensation and incentives system combine to contribute to a widespread lack of motivation and performance at all levels of the Ministry.

Effectiveness at the Organizational Level

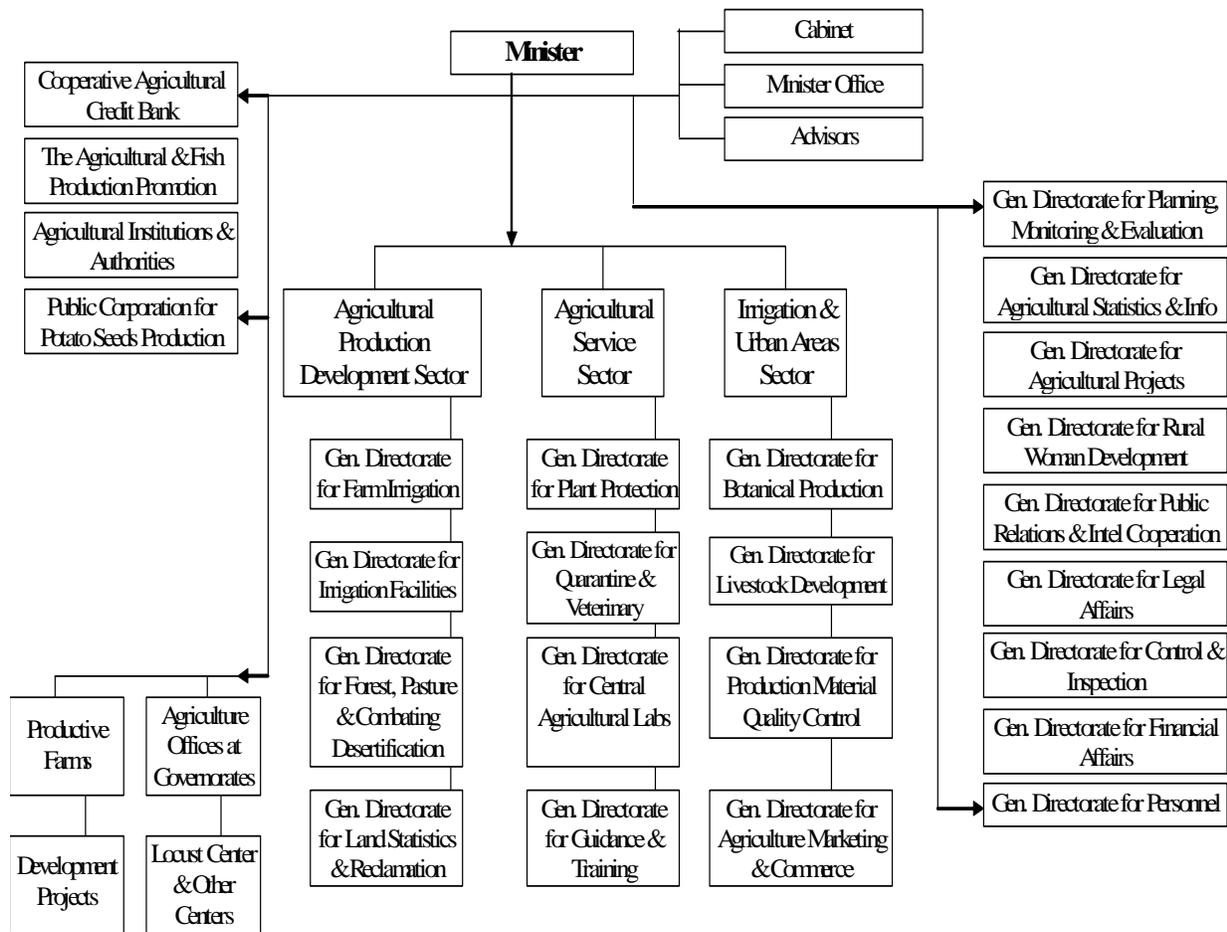
If an individual level analysis of the Ministry presents us with a bleak picture of the Ministry's capacity, what will an organizational level analysis find? The questions we seek to answer at this

level deal with the Ministry's management and structure. *What incentives/disincentives (formal and informal) exist for performance and non-performance? Is the Ministry's organizational structure best suited to achieve its objectives? Is decision-making in the Ministry optimized for organizational performance – as a policy, regulatory, service delivery, and enforcement body?*

a) Organizational Development

In our visit to the MAI, we found that the Ministry does not have an organizational chart. Although several organizational charts have been considered in recent years, none has been agreed upon. A proposed organizational chart (see Figure 1) reflects the complexity of the MAI structure, which is composed of several organizations and units, including a cooperative bank. The unresolved issue of finalizing its organizational structure reflects a continuing bureaucratic struggle within and outside the MAI. In our view, there is no interest in clarity, much less accountability, among the different units. There is an acceptance, if not preference, for adhococracy.

Figure 1: A Proposed MAI Organizational Chart



In our view, the Ministry is overloaded with agencies and functions that it can barely manage. It is responsible for, among others, agricultural research, agriculture extension, veterinary services, irrigation projects management, and agriculture credit service. It is plausible that that in this complex of agencies, the Ministry has lost its focus on what its Mission is, never mind how to measure its progress towards its goals and how to hold its personnel accountable for performance. We discuss each of these agencies/functions in turn below.

Agricultural Research and Extension

Agriculture research is primarily the responsibility of the Ministry's Agricultural Research and Extension Authority (AREA), with its headquarters in Dhamar and regional research stations located in various agricultural zones of the country. Its stated purpose is to ensure that research will be applied, demand-driven and linked to targeted policies and aimed at producing rapid, positive results. A problem-solving approach is supposed to be used by its researchers.

During the development of the Aden Agenda, AREA produced its *Agricultural Research Strategy* statement with the support of the Agricultural Sector Management Support Project funded by the World Bank and the International Center for Agricultural Research in the Dry Areas (ICARDA). The strategy statement emphasized, among other areas, the importance of assigning "higher priorities to research on rain-fed crop production, resource management, livestock development, and socioeconomic progress."

It was additionally stated that national research centers would be established for livestock production, post-harvest technology and resource management. Based on discussions with AREA's Chairman, we were told that it presently has 1,500 staff, including 450 researchers and scientists working in eight (8) research stations and five (5) specialized research centers. Numerically, it would seem that the agency has a sizable staff. In actuality, the quality of this staff is in doubt. We were not able to visit any local AREA office and cannot verify the state of those offices.

However, based on our review of available reports and meetings with AREA officials, we found that the agency's objectives are not supported by adequate operational funds. According to AREA publications, there have been 113 tested, developed and approved research results published between 2001 and 2005. The Ministry has not addressed the need to ensure that research findings, limited as they are, were being applied. Our understanding is that only a very limited number of research results have been put in the hands of farmers. In our view, *the Ministry's structure of separating research and extension has had a tremendous negative impact on the performance of the entire agricultural sector, compounded by the divide between the Ministry and local Agriculture Offices as a result of decentralization.*

AREA's employees operate under the technical supervision of the Ministry's Agricultural Offices and District Extension Centers located all over the country. Following the passage of the decentralization law, this entire service is now managed by local authorities. We were told that the majority of these agents do not show up for work because of low salaries, the absence of serious programs, weak management, and non-existent monitoring and evaluation systems. This

set-up has been described by those we interviewed as being counterproductive, fruitless and unsuccessful, among others.

According to our interviewees, there are a number of reasons for the current weakness of the extension system. The local agriculture offices lack logistical support and operating funds; there are few vehicles available to expand their reach; they have no audio-visual equipment for training purposes; and the technical information they have is limited and outdated.

In our view, one of the major problems of the current extension service is the absence of a national coordination unit and the lack of even a rudimentary information management and dissemination system. Although AREA's name implies that it would be the national agency responsible for extension, this is not the case. Interestingly, some AREA officials seek to clarify its research role as "research on extension." In this regard, there is currently no one in the Ministry who is advocating for the needs of the extension system at the national level. There is also no clarity as to who is responsible for providing program guidance to the field units.

To the Ministry's credit, it convened a workshop in Sana'a in January 2004 to address a number of the issues affecting research and extension. The participants – including extension agents and supervisors from around the country, university staff and MAI and AREA officials – discussed three major options for reforming the institutional arrangement for extension:

1. To create a General Directorate of Extension within MAI that would coordinate and promote the relationship among extension agents, AREA researchers, and the farming community (Agriculture Cooperatives Union).
2. To create a semi-autonomous institution to be responsible for extension (General Authority for Agriculture Extension).
3. To improve the effectiveness of extension within the AREA by providing the agency with the necessary budget.

However, the workshop ended without any resolution to the problems and to date no decision has been made due to the seemingly endless negotiations between the Agriculture Ministry and the Civil Service Ministry over the final organizational structure of the MAI.

In our view, *the poor performance in research and extension is partly the result of the absence of monitoring and evaluation systems at all levels of the Ministry, including its research activities.* Accordingly, the lack of cooperation and coordination between the planning and irrigation services compounds the problematic situation. To be effective, AREA needs adequate, reliable and recurrent financing for research activities. It also requires better recruitment and distribution of professional staff among AREA research stations. Finally, its research activities should be complemented by university research that could be driven by a competitive grants approach.

The provision of private sector extension services are envisioned in the Aden Agenda. It would expand the work of private sector input suppliers and merchants who are already providing valuable information to farmers and livestock producers by selling them plant protection chemicals, fertilizers, and veterinary products. Given the weak institutional and technical capacities of the MAI's extension services, it is arguably worth considering the idea of the

government providing greater incentives to the private sector to expand its extension services rather than strengthening AREA.

In addition to the commercial information provided by private sales agents on a daily basis, private traders currently organize promotion campaigns to provide technical information to their distributors and to major farmers' associations. In some cases, we understand that government extension agents are providing consulting services outside their official working hours to large private farms or donors' projects. Private extension services would probably be appropriate for high value crops such as mangos, oranges, potatoes, and coffee, where the farmer can afford to pay for a specialized service.

To be sure, the Agriculture Ministry should retain its regulatory authority as private sector work expands. It should coordinate and enhance linkages with private sector associations, such as the Yemen Traders Association for Agricultural Materials, which represents the input suppliers.

Veterinary Services

The Agriculture Ministry is also responsible for veterinary services. It is mandated to handle infectious livestock diseases (e.g., avian flu, mad cow) and administer quarantine measures. It does not take care of other kinds of veterinary services being handled by private providers, such as diagnosis of ordinary animal medical problems and dispensing veterinary drugs.

The Agriculture Ministry has veterinary service centers, with veterinary doctors and technicians, located in all governorates and in many districts. These centers previously dispensed veterinary medicines free of charge or at subsidized prices, provided free veterinary services, and carried out national campaigns against infectious livestock disease. Today, the centers and veterinary personnel have decreased their services due to a lack of financial and logistical resources. We were told that many of the local centers have long been inactive and unhelpful in tackling the reportedly high increase in livestock diseases in the country.

Irrigation Projects Management

The Ministry's Department of Irrigation (DOI) is responsible for the evaluation, design, and supervision of irrigation projects. Some of these projects are funded through the regular Ministry investment budget, while others are funded by the Agricultural and Fisheries Production Promotion Fund (AFPPF). It should be noted that some of our interviewees claimed that the criteria used by the agency to evaluate these projects are not transparent, and that the DOI fails to do adequate cost-benefit analysis.

Officials at the MAI understand that the sustainability and maintenance and operation of large state irrigation schemes, which were primarily built through foreign financing, will depend on the participatory role of farming communities in terms of cash or in-kind contributions toward M&O costs. However, this remains a daunting challenge. Although conceived as the channel for enabling private sector financing and operations of irrigation systems, water users' associations (WUAs) have yet to demonstrate their effectiveness as intended. These WUAs are also expected to become active in the management of irrigation schemes at the structure level and down to the

main and secondary canals. Given the weak capacity of the Ministry's local offices, we are uncertain about the expected coordination between local agencies and the WUAs.

Agricultural Credit Service

Under the Agriculture Ministry is the Cooperative and Agricultural Credit Bank (CACB). The idea for the Bank was that it would foster the creation of a viable rural credit market. Under the Aden Agenda, the CACB was supposed to become a rural savings and credit bank. It would eliminate subsidies on interest rates, paying market rates to depositors for savings deposits, improve management, reduce operating costs, and implement innovative approaches for rural group lending. These reforms were intended to be studied further, but to date all studies related to restructuring and reorganizing the CACB have been delayed.

In our interviews, we were told that the current CACB chairman has the backing of the Prime Minister to move forward with the reforms. Again, as with many of the initiatives related to the Agriculture Ministry discussed above, it remains to be seen if the CACB will succeed. However, it is arguably more likely to move forward with its reforms as it appears to have resources at its disposal.

b) Budget and Finance

The Ministry's budget consists of several components. For CY 2008, the budget was composed of the following:

- A recurrent budget of 3.8 billion rials⁶;
- An agricultural development budget of 18 billion rials;
- A Fund for Support of Fisheries and Infrastructure of 8 billion rials;
- Various amounts for other agriculture development authorities.

The Ministry controls the recurrent budget that funds the central offices of the Ministry. Included in the recurrent budget are 1.8 billion rials provided by the governorates for local agricultural and irrigation services. Notably, the Ministry has little power over its development budget, which is largely controlled by donors that provide grants and loans for their projects, with limited counterpart funding provided by the Ministry. In addition, the Ministry of Planning and International Cooperation influences the agricultural development budget through its National Five Year Plan. MOPIC is also solely tasked with negotiating agricultural development projects with the donors. In this regard, a Deputy Minister expressed dismay that, with the exception of a project funded by USAID, the Ministry does not have any other existing donor-funded projects.

Even with the budget that it controls, the Agriculture Ministry has been unable to secure funding for its requests in recent years. Upon receiving the recurrent and capital budget ceilings from the Ministry of Finance, the Ministry of Agriculture prepares its own recurrent budget request for negotiation with the Ministry of Finance. Despite stipulated ceilings, we were told that the Ministry's budget request usually results in cuts. The same is said for the Ministry's capital budget, which is under the control of the Planning Ministry.

⁶ US\$1 = 199.2 Yemeni rials

Moreover, the Ministry has no control over the Fund for Support of Fisheries and Infrastructure, which is funded by petroleum revenue, including one rial per barrel of oil production and 1.5 rials per liter in diesel and gasoline sales. The Fund is controlled by a Board of Directors that is independent of the MAI.

Other agricultural development authorities, such as Research and Extension, Seed Multiplication, and Agriculture Credit Bank are not under the control of the Ministry. Their recurrent and development budgets are not approved by the Ministry of Agriculture before being sent to the Ministry of Finance. This indicates that **the Ministry only has effective command and control of its central office, which clearly limits the Ministry's capacity to direct agricultural development strategy.**

c) Procurement

All Ministry procurements above the threshold of one million rials (approximately US\$5,000) are issued by competitive tenders with advance announcements. Procurement below this threshold requires a limited number of calls to suppliers to get competitive bids. We were told that some donors accept using calls to suppliers for procurements up to US\$200,000, but could not verify this information. Some Ministry staff questioned why donors are using different rules and procedures for procurement, and not letting the Ministry use its own rules. We could not respond with the obvious point that there was little trust in the Ministry's procurement procedures.

Interestingly, we were also told there have been no challenges to date in the results of the Ministry's procurements. This is a fact that underscores either integrity in the process, or a lack of confidence in the credibility of the complaints process. It is our opinion that the situation reflects the latter, not the former.

We heard from some officials who spoke in confidence that there have been problems with biased procurement committees, including conferring contract awards in exchange for kickbacks. In addition, there were issues with contractors subcontracting to firms that were not included in the procurement proposal process.

The Ministry is preparing to adjust to new procurement legislation enacted in 2007. However, implementation regulations have yet to be completed and approved. As it stands, the new procurement law could be a major step in the right direction. However, it is uncertain if it will be adequately implemented in the Yemeni context.

d) Internal Audit

In view of the weaknesses in the procurement environment, we inquired about the Ministry's capacity for internal audit. We were informed that the Ministry does not conduct internal audits of semi-autonomous authorities linked to it or of its donor projects. In our view, a joint ministerial committee ought to review procurements before the first payment to a contractor is made. In addition, contractors must present a bank guarantee before they receive cash advances.

However, even if it was mandated to do so, we are doubtful that the Ministry will have the capacity to comply.

In our view, the Ministry lacks the financial management skills to satisfactorily control and coordinate program and project funding and implementation. There is observable lack of management controls, monitoring, and evaluation in its operations. Some degree of performance can be found in donor projects in which project management units handle project implementation. However, it is our understanding that the activities of these donor projects have not been sustained after the conclusion of the project.

e) Reforming the Budgeting, Procurement and Internal Control Systems

The Aden Agenda emphasized that budget restructuring will focus on increasing the operating cost per employee, increasing the average salaries of MAI employees, improving the efficiency and value of money spent, program budgeting, and promotion of privatization. In this regard, the Ministry has obtained Cabinet approval, under an April 2000 resolution, to support the budget restructuring program as part of the overall restructuring process. It was reported that the implementation of the main components of the MAI budget restructuring process were already in progress. These components included:

- A budget plan that stayed within the overall budget total ceiling.
- A progressively increasing operating budget.
- The preparation of a new salary system that focuses on increasing average salaries as a result of staff reductions.
- Budget planning and expenditure monitoring system improvements.

As we found in our visit, these initiatives remain “in progress.” We did not see evidence to the contrary. In fact, we heard that there were insufficient operating funds for extension and other MAI service delivery programs as result of faulty planning and budgeting by the Ministry. It is clear that **budgeting and planning are divorced from Ministry strategies and agricultural policies**. In actuality, most of the MAI departments and agencies are not preparing annual work plans because their managers do not have the training and the required skills to develop appropriate plans and budgets, much less performance management tools.

It should be noted that during our discussions with the General Director of Finance and the General Director of Planning and Monitoring, we were informed that the Ministry feels an urgent need to implement a serious planning and budgeting process to improve its institutional performance at the national and local levels. However, they also reported that they did not have control over key parts of the process. In their view, human resources reform should be the focus of budget reform, which would depend on the Civil Service Ministry. In addition, they noted that overstaffing problems must be addressed in order to increase the salaries of retained employees and redirect the extra savings towards the MAI operating budget.

While these officials understand some of the key issues and trade-offs facing them, it was evident to us that they were not prepared to engage the Ministry of Civil Service. It seemed they were acting as if these matters are “above their pay grade.” They would rather persist with the

status quo than risk proposing changes that may not be well received in other ministries, much less within the Agriculture Ministry itself.

Effectiveness at the Institutional Level

At the institutional level, we are interested in questions that seek to understand the forces operating outside the Ministry that affect its performance including: *What broader socio-political conditions prevent or promote the building of effectiveness in the Ministry? Which groups in society hold stakes in the performance of the Ministry and do they influence the performance of the Ministry? What external influence and demand-side pressures affect the performance of the Ministry?*

The basic premise of these questions is that institutions are open systems, and the external environment in which they operate is very important. MAI cannot be effective without engaging the support of other agencies if it is to survive and perform well. The institutional environment is a key factor in determining the level of available resources and the ease with which the Ministry can perform its activities with a high level of effectiveness. In this regard, it is important to consider assessing the impact of the Ministries of Finance and Civil Service and local governments on the performance of the MAI.

The Finance Ministry

The Finance Ministry exercises a high degree of control in all government ministries, including the Agriculture Ministry, through the placement of MOF officials in key positions in different ministries. The Director General of Finance in the Agriculture Ministry is an official of the MOF, reporting directly to both the Minister of Finance and the Minister of Agriculture. The Director General is assisted by three MOF staff: the Accounting Director, the Procurement Director, and the Treasurer for Funds Disbursement

This arrangement is supposed to provide for effective control and reporting on finances in the Ministry. In reality, this set-up has produced confusion and conflict between MOF and the Agriculture Ministry. We were told there is talk of moving responsibility for financial rules and regulations to the Ministry of Finance and allowing the Ministry of Agriculture to choose its own financial staff. Based on our discussions with other officials, it is extremely unlikely that the MOF would agree to amend the current arrangement, which they feel is necessary to maintain control.

The Civil Service Ministry

The Civil Service Ministry controls the employment of all ministry officials below the Minister and Deputy Minister level. This situation is not unique to the Agriculture Ministry or to Yemen. What this means is that the Civil Service Ministry is responsible for the bloating of the bureaucracy of the ministries. In the case of the Agriculture Ministry, the Civil Service Ministry has caused its employment rolls to expand, and is partly responsible for resisting any subsequent rollbacks.

It is not surprising that the Civil Service Ministry, by its own admission, has up to 30,000 government bureaucrats (out of a total 473,000 government employees) who are ‘ghost workers,’ or who are ‘double dippers’ (showing up on more than one payroll). With the assistance of the World Bank, the Civil Service Ministry has undertaken the Civil Service Modernization Program. This project includes a new management information system (MIS), biometric identifications to prevent ghost workers and double dippers, payroll reform and a program of early retirement as a cost savings measure. The project focuses on capacity building of the Civil Service Ministry, the implementation of performance-based reviews and rationalization of the evaluation and promotion systems in the civil service. However, the program is only in its second year of implementation, and it is too early to tell what its actual impact will be.

Local Governments

The Law of Local Authority enacted in 2000 was aimed at fostering decentralization. This had a major impact on the work of the Agriculture Ministry. The law fundamentally changed the relationship between the existing organs of the Agriculture Ministry at the governorate level and at the national level. Under this law, the Agricultural Office in each governorate was moved under the financial and administrative jurisdiction of the Governor’s office, while the Ministry retained its technical supervision. By removing administrative and financial control of the local agriculture offices, the Local Authority Law undercut the power of the Agriculture Ministry.

Under the Law of Local Authority, the annual budgets of the Agriculture Offices in the governorates would be part of the governorate budget. However, this has yet to be implemented in all governorates. It was reported to us that the budget allocated to the Agriculture Offices may not be adequate to meet planned agricultural programs. We were told about widespread untimely and unreliable delivery of decentralized services by local Agriculture Offices, which has contributed to the weak performance of Yemen’s agriculture sector. Poor Ministry performance is particularly evident in the extension programs at the local level, as machinery services and other activities that were begun under donor-funded projects that are now inoperable following the close-out of donor support. The Ministry’s budgetary insufficiency and managerial weaknesses have simply not been able to anticipate and address these issues of sustainability.

IV. PREVIOUS EFFORTS AT ENHANCING THE MINISTRY’S EFFECTIVENESS

The Agriculture Ministry has been the recipient of multiple donor-funded reform efforts. The most comprehensive initiative was undertaken in 1997, the so-called Aden Agenda. There was widespread concern in government and among donor agencies that the agricultural sector was plagued with deepening problems. Research had become ineffective and agricultural extension was largely inoperative. Subsidies on inputs had been greatly curtailed and few alternatives had been devised to make up for the stimulus and support given to farmers. In this context, the Agriculture Ministry was seen as the necessary spearhead to tackle the problems. It is not clear, in the midst of the current food security crisis, if the Ministry will be given similar donor support. If past is prologue, then there is a chance that donors will have, at best, mixed feelings about providing renewed support.

The Aden Agenda

With donor-funding, the Agriculture Ministry convened a workshop at the University of Aden in 1997. The purpose was to review the problems and constraints in the agricultural sector. This was followed by three studies carried out under the auspices of the World Bank: *The Labor Force in the MAI* (October 1998), *Preparation of a Budget and Expenditure Adjustment Program* (March 1999), and *Field Services Review* (April 1999). The recommendations from the workshop and the studies became the basis for a program of action called the Aden Agenda.⁷

The Aden Agenda was approved by the Council of Ministers in 2000 as Decree No. 100, titled *Agenda for 21st Century Agriculture (A21A)*. Since then, the terms *Aden Agenda* and *A21A* have often been used interchangeably in the government and by donors. Under the A21A, the primary goal for Agriculture Ministry was to create sustainable equitable growth in output and income, particularly for the poor. The A21A also focused on promoting the role of the cooperative and private sectors, as well as reforming the provision of the MAI's services to farming communities. It was, without doubt, an ambitious agenda.

Following cabinet approval of A21A, the Agriculture Ministry developed a "Work Plan for Management of Change -- A21A," which would be the roadmap for the implementation of the Aden Agenda. The work plan had five main components:

1. Redefining MAI policies and objectives at the national and local levels.
2. Preparation and implementation of revised strategies and programs.
3. Restructuring agricultural field services.
4. Reorganizing MAI human resources within the framework of public administration reform.
5. Restructuring the MAI budgeting process and adjusting expenditures, in line with the overall public sector reform and within the existing budget level.

Based on the recommendations of the Aden Agenda, new programs were started in the following areas:

- Establishment of an agriculture management information system (AMIS).
- Restructuring the Agricultural and Fisheries Production Promotion Fund (AFPPF).
- Irrigation systems and techniques.
- Livestock production.
- Restructuring the Cooperative and Agriculture Credit Bank (CACB).
- Knowledge transfer of agricultural technologies to farmers and end users.
- Awareness building among MAI staff for policy review, program formulation, adoption and implementation under the A21A.

⁷ See GOY, *Enhanced Structural Adjustment Facility, Medium-Term Economic and Financial Policy Framework Paper 1999-2001*, Prepared by the Yemeni Authorities in Collaboration with the Staff of the IMF and the World Bank, March 1999.

The Aden Agenda also called for an institutional restructuring program that sought to rationalize its organizational structure. The components include:

- Restricting new appointments to top management.
- Freezing all new hiring.
- Creating and maintaining a database for MAI personnel.
- Preparing a complete manual of the MAI’s units’ functions and job description guidelines for all staff positions.
- Designing a five-year training and skills enhancement program and annual execution plans.
- Removing job duplication, retirees and ghost employees from the MAI payroll in agreement with the Ministry of Civil Service.
- Preparing and finalizing the MAI organizational chart and restructuring plan and securing the approval of the Ministry of Civil Service and the Council of Ministers.

In addition, the Aden Agenda tackled the critical issue of the mission of the Agriculture Ministry, i.e. what the Ministry should continue to do and do better, and what should be transferred to the private sector. This was particularly the case in the delivery of field services. The operating principle was that “public goods” should be delivered by the MAI while “private goods” should be delivered by the private sector at market prices. The attempt at a division of labor resulted in three-way allocation of responsibility for services, as shown in Table 3:

Table 3: Allocation of Agricultural Field Services under A21A

To be retained in the public sector and improved	To be shared by public and non- public providers	To be provided by the private sector and cooperatives
<ul style="list-style-type: none"> • Research • Plant and animal quarantine • Animal and plant protection (public interest aspects) • Natural resources management oversight • Promotion of farmer organizations 	<ul style="list-style-type: none"> • Agriculture extension • Animal and plant protection (non public interest aspects) • Nursery tree production (forest trees) • Spate irrigation management • Agricultural credit 	<ul style="list-style-type: none"> • Input supply • Seed supply • Machinery rents • Nursery tree production (fruit trees)

Source: A21A and World Bank, *Republic of Yemen, Agricultural Strategy Note*, 1999.

The Aden Agenda’s attempt to delineate public and private spheres in the agriculture sector was an important contribution. It had some immediate effects. For example, the Agricultural Service Corporation (ASC) was the Ministry unit responsible for selling subsidized inputs and irrigation pumps to farmers. Based on A21A provisions, the MAI had to liquidate the ASC. We were told this was being implemented.

With the support of World Bank, the Ministry has started privatizing some of its agencies that work in the area of input supply and delivery. Among those agencies are the following:

- The Vegetable Seed Company
- The Potato Seed Company
- The Agriculture Equipment Rental Center in Hadramout.

However, the Ministry has resisted the privatization of entities that it considers essential. Attempts to privatize several MAI well-drilling companies were reportedly unsuccessful. For example, the Ministry has refused to let go of the General Seed Multiplication Corporation (GSMC), on the basis that the Ministry should continue to sell the seeds at a subsidized price. We were unable to get a satisfactory discussion of the cost-benefit implications of this policy stance.

To the government's credit, a number of laws and policy reforms were enacted to implement the Aden Agenda. These include the following:

- *Seeds and Agricultural Fertilizers Law No. 20* (enacted in 1998): Aims to encourage the private sector to play the primary role in the delivery of agricultural inputs, especially seeds and agro-chemicals.
- *Plant Quarantine Law No. 32* (enacted in 1999): Seeks to rationalize the organization and control of importation of plant materials.
- *Water Law No. 33* (enacted in 2002) Encourages the formation of water user groups and associations as well as a private sector role in the conservation and management of water resources.

Other laws were proposed, such as the *Law for Management and Protection of Animal Resources*, the *Land Conservation Law*, and the *Rangeland Law*. The Ministry's legal department, however, could not give us an update on the status of these proposed laws.

The Sapping of the Aden Agenda

As discussed above, a number of the organizational reforms were nominal and did not get off the ground. At the start the implementation process was very slow, and at the time of our assessment it was clear there was little driving motivation for continuing the reforms. As one Deputy Minister said to us, "the Aden Agenda is dead". He said he is the only official remaining in the Ministry who was part of the process in 1997.

When we inquired among various ministry officials about the person in charge of advancing initiatives from the Aden Agenda, they were unable to name anyone. There were no ongoing institutional arrangements taken to ensure the execution of A21A reforms. This breakdown of the Aden Agenda was not just due to the changing of the guard at the Ministry, although that is arguably one factor. Reforms need champions, and when no one is left to carry the torch, it is not realistic to expect that implementation will continue. The reforms envisioned in the Aden Agenda naturally did not lack for opponents who had stakes in the status quo.

In addition, the government pursued a number of other reforms, among them decentralization, that arguably were detrimental to the Aden Agenda. Decentralization reduced the Agriculture Ministry's ability to manage service delivery and the local implementation of agenda. It would have been a different story if decentralization succeeded in strengthening local capacity rapidly

and uniformly. Instead, decentralization was uneven and under-funded, resulting in additional local mandates without the requisite provision of resources and personnel.

In addition, the privatization component of the Aden Agenda seems to have encountered serious issues. In one meeting, we were informed that a Deputy Minister and other MAI officials were facing charges in court for corruption in the sale of Ministry assets.

We found that about 90% (about 160) Ministry infrastructure projects failed or remain incomplete. Among the reasons cited were:

- Weak feasibility studies
- Fluctuating market prices for project inputs were not anticipated
- Contractors were incapable of implementing projects
- Local populations with differing social/cultural backgrounds obstructed project implementation
- The Ministry did not have capable project managers empowered to enforce project time lines and acceptable performance standards, or to stop projects if necessary
- Local oversight staff were too weak and often accepted bribes to ignore problems.
- Ministry management takes 2-3 months to respond and deal with major project problems.

Given the shortcomings of the Ministry in implementing the Aden Agenda, it is perhaps not surprising that the Ministry has not been viewed as a credible counterpart. To be sure, the World Bank and other donors have supported the implementation of relatively recent A21A initiatives,⁸ but at present there is no ongoing donor funding. In one meeting a Deputy Minister complained that, with the exception of USAID, there is no other donor-funded program to support the operations of the Agriculture Ministry.

The lack of donor-funded projects in the Agriculture Ministry complicates the challenge of enhancing its effectiveness. Because the Ministry's institutional and organizational problems are severe across the board, the need for broad external support is crucial, both in terms of financial resources as well as political capital. Donors are in a strong position to supply both to reformers, hence reducing the risks of resistance to reforms. In the following section, we discuss a range of recommendations to enhance MAI effectiveness for consideration by USAID and other donors.

V. RECOMMENDATIONS

Based on the above assessment, we recommend the following activities to enhance the effectiveness of the Agriculture Ministry, as follows:

1. Development of a Strategic Plan and Completion of Organizational Structure

⁸ Among the notable examples is the World Bank's "Strengthening technical capacity in the irrigation sub-sector (Directorate of Irrigation" in 1999, and the FAO's "Capacity building for Agricultural Cooperative Development".

A principal reason the Ministry has not been able to agree on what its organizational structure should be is because it has not clarified what its mission should be. The Ministry will not be able to effectively restructure and right-size itself without first clarifying its goals. At present, the proposed MAI organizational structure increases the number of top positions without paying attention to any financial or managerial implications.

This technical assistance will include a strategic planning workshop that will produce a new MAI strategic plan and an organizational structure that would ensure an appropriate approach to executing the strategic plan. It will involve the participation of all top ministry officials and leaders of stakeholder organizations, such as water users associations and cooperatives.

This technical assistance will entail the participation of a Strategic Planning Specialist and an Organizational Development Specialist. We envision each specialist will need 4 weeks to complete their work in preparing for and facilitating the delivery of the workshop, as well as the completion of the Strategic Plan and the Organizational Structure. Other direct costs will be required for the logistical needs of the workshop and the per diem of participants.

2. Completion of Personnel Manual

As requested by Ministry of Civil Service, the Department of Human Resources and Training is currently engaged in assembling information regarding the functions of all units, departments and agencies within the Ministry of Agriculture and its attached agencies and organizations. In addition, the department is undertaking steps towards the preparation of a personnel manual with full job descriptions and classifications. This work is being done without a computerized personnel databank or professional expertise in the areas of labor law, administration, human resources development or skills requirements. In addition, all tasks are manual because of the lack of adequate equipment, computers, financial support and expertise. At the current speed, this important project will probably take at least a year, if not more.

This technical assistance will seek to assist the Department of Human Resources and Training to complete its Personnel Manual, which will be crucial for rationalizing the personnel structure and operations of the Ministry. This activity require the services of an individual or team skilled in personnel management, preferably someone with experience in the agricultural sector. We envision this task to take up to 6 person-months of work while equipment support will be needed in terms of 4 desktop computers and 1 laptop computer.

3. Design and Implementation of a Service Enhancement Program

Standards are benchmarks that an organization strives to meet. They serve as the basis for efforts at continuous improvements. In the Agriculture Ministry, however, there are no standards in service delivery. In fact, the public is unaware of what services are available to them as citizens. We found that, even within ministry offices and agencies, it is difficult to obtain a straight answer about what services they are supposed to deliver.

This technical assistance will assist the Ministry in developing service delivery standards for its respective units. These standards will be posted at the frontline offices of each agency to inform

the public about their respective services, where and how to obtain them, the service timetable and the cost. Because this activity focuses on the frontline agencies, it has the potential of immediately affecting the attitudes of citizens who transact with the ministry. Because this initiative is relatively easy to implement, it presents an opportunity for a quick-win by the Ministry. In a crisis environment, it is arguably important to show quick-wins and gain confidence and breathing room for subsequent harder reforms.

Ideally, this technical assistance should be conducted by a Performance Management Specialist who will conduct a survey of the service delivery performance of units that interact with Yemeni citizens. The survey will interview a representative sample of users of ministry services. Based on the survey results, the Specialist will work with the Ministry to develop a Service Delivery Improvement Program for each relevant unit. The program will establish standards and benchmarks to meet over an agreed upon period, which will be monitored and reviewed regularly.

We estimate this recommendation to entail 3-person months for the Performance Management Specialist. The scope of work will be to design, supervise, and analyze the results of the survey. He or she will also lead the development of a Service Delivery Improvement Program. This technical assistance will involve other direct costs in terms of the implementation of the survey and the conduct of service delivery improvement workshops.

4. Development of a National Agriculture Information System

Quality of information is the basis of good decisions. The decision-making process within the MAI is conducive to external influence and patronage because there are no other bases to consider. The leaders of MAI need to be given reliable, accurate, and useful data on which they can analyze and make a case for informed decisions.

In this regard, we propose the development of a database of agricultural information that is customized to be responsive to MAI needs. At present, obtaining simple information is a struggle. The Central Statistics Department collects raw data that in our view is not useful for development planning or crisis management. The type of data it collects is not reviewed and analyzed for utility. It is a routine process that has long served its purpose.

We recommend that the Ministry develop an Agriculture Management Information System to enhance decision making and improve the Ministry's institutional performance. The system will be the basis for policy analysis and planning. It will produce needed statistics, maps and thematic reports. We envision this system to be managed by a national steering committee presided over by the Ministry of Agriculture with participation by leaders of stakeholder organizations.

The design and implementation of this activity should follow the preceding short-term technical assistance activities. To develop this system, the services of an Information Systems specialist will be needed. The specialist will lead the conduct of a workshop for the formulation of the proposed system and engage governmental and nongovernmental institutions in a series of roundtable discussion to build consensus on the system's requirements and responsibilities. The

technical assistance will also entail preparation of a budget on the personnel and technical needs of the system (i.e. hardware and software).

We estimate this TA to be implemented over a 1-year period. Apart from the long-term participation of an Information Systems specialist, it will require short term technical assistance (STTA) from international and local agricultural sector specialists for the various components of the system. The IT requirements of the system will be assessed through an in-depth feasibility study.

5. Formulation of a Local Agricultural Development Strategy

The Law of Local Authority is supposed to be based on principles of administrative and financial decentralization, with the goal of enhancing people's participation in local decision-making and management. It introduced the role of elected local councils in various types of development activities, such as the identification or proposal of local roads and water projects. In theory, greater local governance offers opportunities to engage a combination of actors at both the national and local levels in the pursuit of a good governance system that directly contributes to poverty alleviation and better economic opportunities. In the current environment, the Agriculture Ministry works with the Ministries of Finance, Planning, and Local Administration along with local councils in each governorate to play a more participatory role in resource mobilization and local development program implementation.

This proposed local agricultural development program seeks to adopt an approach integrates several components to achieve concrete and tangible benefits to local communities, namely:

- Improve local resource mobilization, financial management, and planning by local councils
- Improve citizen participation in the prioritization, planning, implementation, and oversight of social infrastructure projects
- Foster development partnerships for local development
- Promote transparency and the oversight role of citizens
- Improve central/local policy dialogue on the implementation of the local administration law

This technical assistance will require the services of a Local Governance or Decentralization Specialist, preferably with experience in the agricultural sector. The Specialist will conduct an assessment of the local governance conditions affecting the agricultural sector and use the results of the study for the basis of a workshop to develop a local agricultural development strategy. This workshop will bring together officials from the Ministries of Agriculture, Finance, Planning, and Local Administration. It will also involve key officials of all governorates in North and South Yemen, as well as local stakeholder organizations. It is anticipated that two workshops will be needed: one each for North and South Yemen.

We estimate at least 3-person months for the Local Governance/Decentralization Specialist. Direct costs will include logistics for the country-wide assessment as well as the expenses (venue, local travel, per diem for participants) in convening the workshops.

In summary, the Agriculture Ministry presides over a poorly performing agricultural sector that is facing a food crisis compounded by a water crisis. The sector's heavy dependence on food imports and the lack of rainfall for local farming has meant enormous negative consequences, notably high food prices and more expensive basic commodities. Moreover, the growing dependency and production of qat has added trouble to the mix. The Agriculture Ministry has been unable to address these problems due to its own institutional and organizational weaknesses and the absence of needed external resources.

In this context it is critical, in our view, that the Agriculture Ministry be supported and given a new opportunity to exercise leadership in the agricultural sector. The recommendations we propose here seek to provide the basis for stronger institutional leadership and ability to execute needed reforms. These reforms are critical if the country is to have a stronger chance at overcoming the current crisis and laying the foundation for long-term growth.

APPENDIX 1: List of Meetings

USAID

US Ambassador

Mike Sarhan, Mission Director

Angie Bryan, Deputy Chief of Mission, US Embassy

Wade Sattar, Economic Growth and Agriculture Team Leader

Susan Ayari, Sr. Education Advisor

Abdulhamid N. Alajami, Sr. Education Advisor

Dr. Iman Aly Awad, Sr. Health Advisor, Team Leader

Salwa Alargahi, Team Leader

Raidan Abdulaziz Al-Saqqaf, Development Program Specialist, Program Office

ARD

Jeff Grey, Project Manager for YASP at ARD HQ in Burlington, Vermont

Michael Schwatz, YASP consultant on coffee marketing

David C. Wilcock, Ag Economist

Development Partners (Donors/ Projects)

Dr. Aly Alabdulrazzaq, Senior Economist, World Bank

Naji Abu Hatim, Senior Rural Development Specialist, World Bank

Samra Shaibani, Sr. Communication Officer, World Bank

Bilquis Anwer Sattar, Manager, World Bank Rain fed Agriculture and Livestock Project

Hashim A-Shimi, FAO Representative in Yemen

Ibrahim Thabet, Professional Officer, FAO of the UN

Laurens Jacobs, First Secretary, Embassy of the Netherlands

Marieke Boot, First Secretary, Embassy of the Netherlands

Habib Sheriff, Sr. program Advisor, German Technical Cooperation (GTZ)

Dr. Reate Schmidt, Administrative Advisor, National Institute of Administrative Science

Ministry of Agriculture and Irrigation (MAI)

Abdul Malik Al-Arashi, Deputy Minister

Abdul Raoof, Director Export-Imports Department

Abdul-Hakeem Al-Shargabi, Director Marketing Organization

Abdullah Atross, Manager MIS, GD Marketing

Abdullah Ismael, GD of Personnel and Training

Abdulmalik Althawr, GD Planning and Monitoring

Ahmed Ali Bagoth, Vice-President Agricultural Cooperative Union

Ali Gunid, Director of Policy in the GD of Planning

Ali Tahir Abdul Ghani, GD Financial Management

Dr. Mansour Al-Aqil, GD of Agricultural Statistics

Ezzadin M. Al-Gonaid, Vice-GD, GD of Irrigation

Jamal Al-Dean Al-Salemi, GD of MAI Restructuring Project

Najib Al-Kady, GD Legal Affairs

Dr. Ismail A. Muharram, Chairman, Ag Research and Extension Authority

A. A. Abdolmalek, Head of Information and Training, Ag. Cooperative Union

Other GoY

Abdulkarim Ismail Al-Arhabi, Deputy Prime Minister, Minister of Planning and International Cooperation

Abdusalam m Algoufi, Minister of Education

Jalal Omar Yaqoub, Deputy Minister of Finance

Hisham Sharaf Abdullah, Deputy Minister for International Cooperation, MOPIC

Khaled Mohamed Saeed, GD for Agriculture and Fisheries, MOPIC

Mahmoud M Shidiwah, Chairman, Environmental Protection Agency

Faris Al-Sanabani, Secretary of the President

APPENDIX 2: BIBLIOGRAPHY

Amin A.H. Al-Kirshi and Taher A.M. Abbas, “Protected Agriculture in the Republic of Yemen” (a short article on survey results on frequency of greenhouse use), *Agricultural Research and Extension Authority (AREA), Dhamar, Yemen, 2002.*

A-Shami, Hashim, “The Poverty Reduction Strategy and Food Security in Yemen”, FAO, August, 2004.

FAO, (a) “Strengthening, Restructuring, and Decentralization of the Ministry of Agriculture and Irrigation in Yemen”, October 2005 (Document summarizing the whole project); (b) “Mission Report” by Adel Cortas, April, 2004; (complete final in Arabic only), July, 2005; (d) “Final Mission Report”, August, 2005.

FAO, “Food Insecurity in Yemen: Results of the 2003 FIVIMS Survey, Volume I: Main Report”, October 2004.

FAO, “National Conference on Qat: Towards the Formulation of a Comprehensive Qat Policy in the Republic of Yemen”, April, 2002.

FAO, “Yemen’s Agricultural Policy Issues and Options within the Uruguay Round Agreement on Agriculture”, February, 1999.

Gerhard Redecker, “Managing Water for Development: Towards a Joint Vision for Water Resources and Agriculture”, KfW and Ministry of Water and Environment, NWSSIP. January, 2007.

MAI, “Agricultural Statistics Yearbook 2006” May, 2007.

MAI, “Annual Report 2005: Marketing Information in the Main Markets of Yemen”, Sana’a, May, 2006.

MAI, “Results of Discussions in working groups on Organizational Structure” from Workshop on ‘The Agricultural Strategy and the Structure the Agricultural Sector”, May, 2006.

MAI, “Agricultural Sector Strategy Matrix, 2006-2010, and Plan of Work to Implement the Strategy for Two Years (2006-2007), May, 2006.

MAI, “The Alternative Vision of Agriculture for 2025”, 2006.

MAI, “A21A: Framework for management of changes in the Agricultural Sector” (Summary), 2003.

MAI, “Aden Agenda: Framework of the Structural Adjustment for Reform of the Agriculture and Irrigation Sector”, April 2000.

MAI, “Gender policy on Agriculture and Food Security”, June 1999.

MAI, “The Seed and Agricultural Fertilizers law”, 1998.

SDF (Social Fund for Development), Small and Micro Enterprise Development Unit, “Dreams Come True” (for Small and Micro Enterprise Days), June 2007.

UNDP, “Concept Note: Proposed Interventions in Promising Sectors”, 2007.

USAID-Yemen, “YASP Project Evaluation 2007”, ARD-YASP, May, 2007.

USAID-Yemen, “Quarterly Report July-September, 2007” YASP-ARD, October, 2007.

USAID-Yemen, “Assessment of the Development of Agricultural Initiatives for USAID/Yemen, ARD-RAISE, April 2004.

Varisco, Daniel Martin, “The Future of Terrace Farming in Yemen: A Development Dilemma”, Agriculture and Human Values VIII/1-2:166-172, Winter-Spring, 1991.

Ward, Christopher et.al., “Yemen’s Water Sector Reform Program: A Poverty and Social Impact Analysis (PSIA), GTZ-World Bank, August, 2007.

World Bank, “Yemen Economic Update” Fall, 2007.

World Bank, “Yemen: Towards Qat Demand Reduction” June, 2007.

World Bank, “Country Assistance Evaluation”, August, 2006.

World Bank, “Project Appraisal Document: Rain fed Agriculture and Livestock Project”, May 2006.

World Bank, “Implementation Completion Report Seeds and Agricultural Services Project”, 2004.

YEMENCONSULT, “Field Services Review Study: Main Report Part II: Institutional Restructuring, a Framework for Action”, April, 1999 (part of the preparatory studies for the Aden Agenda”.