

**Review and Recommendations on
Rebuilding Food Security and Agricultural
Industries of The Republic of Haiti**

Haiti Task Force

**Board for International Food and
Agricultural Development**

**United States Agency for International
Development**

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I. Executive Summary

In the aftermath of the earthquake that hit Haiti on January 12, 2010, the Board for International Food and Agriculture Development (BIFAD), which advises the Administrator of the United States Agency for International Development (USAID), organized a Task Force to assess what needed to be considered by USAID in order to rebuild that nation's food and agriculture sectors. In January of 2011, the Task Force issued its report to Administrator of USAID, Dr. Rajiv Shah. **The overall recommendation of the Task Force was for USAID to create a consortium led by U.S. land-grant universities.** Through this consortium, a long-term plan could be developed to rebuild Haiti's food and agriculture sectors that would be inclusive, comprehensive from production to processing, integrate research with extension, include human and institutional capacity-building efforts, be well coordinated across all USAID and USDA-funded projects and include appropriate metrics for consistent monitoring and evaluation of progress and of impacts. The response from USAID leadership was to assure BIFAD that these recommendations would be taken into consideration and to report back to BIFAD on progress made.

In September 2012, the Haiti Task Force **returned to Haiti in order to ascertain progress made.** The schedule included a field trip to review the WINNER Project facilities, which included interactions with farmers as well as project personnel from Chemonics International and the University of Florida, as well as visits with government officials, university officials, and the U.S. Ambassador to Haiti. There are four major issues, which the Task Force has identified as needing to be addressed if significant improvement is to be realized and impact is to be achieved.

First is the **lack of sustainability** from the standpoint of a trained workforce in Haiti that could take over the duties currently being carried out by project personnel. Moreover, the research and training centers and the services they provide are in question, given that they require financial support yet no evidence of plans for such support beyond the life of the projects was observed. In addition, it is doubtful that professionals trained through the PASA agreement will return to be employed by the Ministry of Agriculture, unless arrangements are made to compensate these professionals in accordance with their educational level. Finally,

over-dependence on relief organizations as the purchasers of agricultural products produced by farmers instead of the marketplace is artificial and unsustainable, given that these organizations are themselves dependent on donations. Second is the **lack of accessibility to credit** in order to acquire and implement new technologies that can simplify and increase the efficiency of production operations, and which depends heavily on the ability of producers to band together to share these types of assets within producer cooperatives. Such acquisitions require access to credit, and also to training and education, which in Haiti cannot take place easily given that farmers do not enjoy legal status in that country, and given the deficiencies in the extension capabilities of the Ministry of Agriculture, and the inadequacy of the compensation offered to educated professionals.

Third is the **exorbitant taxation**, which is prohibitive and impedes the progress of a free market economy. For example, importers of feed stock, fertilizer, hybrid seed, materials and advanced processing equipment are required to pay high tariffs to import goods necessary to build a free market agricultural industry, which makes it nearly impossible for new investments to be considered in Haiti. Further processing is the most important element, where value can be added and where the most impact can be realized, yet there is almost no food processing industry in Haiti, and the projects being funded by USAID are seriously lacking in this component for the most part, being almost entirely focused on production at the farm. As a result, no impact or significant capacity can be achieved. Fourth is **lack of a business plan** that identifies the marketable commodities that should bring the most growth and profit to the food and agricultural industries, and realistically, that would bring many types of industry to Haiti. This would include the concern over product quality in order to compete effectively in a foreign market place. The fact remains that to create a sustainable agricultural trade industry, the goods produced in the Republic of Haiti must follow a country-wide plan that focuses on the needs of the international consumer. The Task Force is aware that other USAID-funded projects, such as DEED and Haiti Hope, do involve production that is destined for exports. Unfortunately, this is limited to raw commodities, with no value-addition being realized by Haitians, only by foreign importers of those commodities who then further process them into high-value products. A viable plan must include, but not be limited to, identifying product

demand, ensuring product quality, effective negotiation of competitive pricing, temporary suspension of import and export taxation, and transparency of post-contract execution.

The following **specific recommendations** to the Administrator of USAID are offered for his consideration:

Through involvement by the U.S. Ambassador, help:

- (1) develop a policy that gives farmers legal status so they can secure business loans in order to purchase capital equipment and other inputs that can help them support their operations,
- (2) develop a policy that facilitates the formation of cooperatives,
- (3) develop a Haitian policy that freezes tariffs on inputs that are used to establish new business operations and that support existing ones.

Through funding provided by USAID:

- (4) develop and implement business plans that look to attract international corporations to invest in the production of commodities, and of products derived from these, that develop the competitive advantages of Haiti, including opportunities for value addition of competitive products, specifically the establishment of key food processing operations that can propel Haitian products into the world market by increasing their quality and value, and
- (5) develop and implement capacity-building programs that seek to train the leaders of tomorrow such as agronomists, environmental and natural resources specialists, animal scientists, food scientists, marketing and business experts, etc. This should include supporting technical and vocational schools as training foci for extension agents that would then be employed by the Ministry of Agriculture to provide technical assistance to producers, as well as university researchers and teachers that would engage with private industry, with universities serving to educate Haitians to enter the food industry workforce, as well as serving as entrepreneurial incubators and technical resources for new start-up businesses and investors. At the Ministry of Agriculture, a programmatic assessment should be carried out to determine the types and levels of expertise required to lead national

research and extension programs that address the priority needs of Haitian agriculture and ensure an efficient and viable administration. One very important element that must be included is provision for salaries that adequately compensate these professionals. Otherwise, they will not stay and help rebuild the Haitian economy.

II. Background

In the aftermath of the earthquake that hit Haiti on January 12, 2010, BIFAD organized a Task Force to assess what needed to be considered by USAID in order to rebuild that nation's food and agriculture industries. The Task Force hosted a workshop in April of that year in Orlando, Florida, at which members of the academic diaspora of Haiti, as well as retired Ministry of Agriculture employees, came together with representatives of U.S. land-grant universities and non-governmental organizations who had experience working in Haiti in the past. As a result of the workshop, several key ideas were brought to the attention of the Task Force, such as the need for training of extension agents through technical schools, and the need for higher education to become more involved in research and extension activities in food and agriculture in Haiti, perhaps with the establishment of a regional model agricultural university. Most important, the participants identified the need for a comprehensive, long-term plan that integrates research with extension through which funding from the U.S. and other donors could be coordinated, and through which progress and impacts could be consistently measured.

The following month, two Task Force members visited Haiti on their own, in order to see for themselves the conditions on the ground, but also to visit with specific groups that may help shed additional light on what needed to be done in order to manage the reconstruction effort of the food and agriculture sectors. During the visit, the Task Force met with representatives of the Ministry of Agriculture, the State University of Haiti, and Quisqueya University, a private institution of higher education. The Task Force also traveled around Port-Au-Prince and its environs, and met with individuals who had worked for the Ministry, and who had first-hand knowledge of projects conducted through USAID in the past. In the months that followed, the Task Force also conducted a literature review of projects that had been sponsored by USAID in the past, in order to determine lessons learned that could be applied in developing a plan for the future.

In January of 2011, a year almost to the date of the earthquake that ravaged Haiti, killing about a quarter of a million people and leaving about a million homeless, the Task Force issued its report to the Administrator of USAID. In preparing the report, the Task Force sought to advise Dr. Shah not on the specific projects that should be conducted in order to rebuild the

food and agriculture sectors in that country, but rather to provide him with specific recommendations on HOW such an effort should be carried out. This is because it became clear to the Task Force during the course of its fact-finding activities and deliberations that even before the earthquake, and in spite of many hundreds of millions of dollars having been invested by USAID in food and agriculture projects, the impact had been minimal. The Task Force identified the following causes:

- Projects **lacked continuity** due to short-term goals and **lacked sustainability** after the projects ended.
- Projects were **not coordinated**, creating a “projectization effect” in which projects conducted across the food and agriculture continuum had no relation with each other, nor were they coordinated with efforts sponsored by other donors.
- Research and extension were **not integrated** well into projects, with results of applied experiments not being disseminated effectively to end users, and with extension activities not taking into consideration current information provided by research efforts.
- Projects for the most part **did not include Haitian universities**, reducing their sustainability and contributing to the continuing stagnation of higher education in Haiti.
- Projects for the most part were conducted at the **exclusion of the Haitian government**. The Task Force recognized that lack of fiscal responsibility and accountability by the Haitian government in the past had interfered with progress, causing USAID to conduct projects without their participation. However, it was also recognized that some level of inclusion of the Haitian government is necessary for the long-term sustainability of these efforts.

The overall recommendation of the Task Force was for USAID to create a consortium led by U.S. land-grant universities that would also include donor agencies and entities like USAID, USDA and other willing partners in a whole-of-donors approach, as well as stakeholder groups participating in USAID and USDA-funded projects such as non-governmental organizations, as well as include the Haitian Ministry of Agriculture and the private sector. Through this consortium, a long-term plan could be developed to rebuild Haiti’s food and agriculture sectors that would be inclusive, comprehensive from production to processing, that would integrate

research with extension, include human and institutional capacity building efforts, be well coordinated across all USAID and USDA-funded projects, and that would include appropriate metrics for consistent monitoring and evaluation of progress and of impacts. The response from USAID leadership was to assure BIFAD that these recommendations would be taken into consideration as part of the Agency's plans for Haiti, citing plans to enter into a Participating Agency Service Agreement (PASA) with the U.S. Department of Agriculture to enhance capacity building of the Ministry of Agriculture in Haiti.

III. Follow-Up Activities by the Haiti Task Force

Since issuing the report to Administrator Shah, there have been significant events in Haiti, not all beneficial to its reconstruction. There have been many reports of violence within the tent communities that were erected in the aftermath of the earthquake, mostly due to the lack of security and disarray in the Haitian government. A major outbreak of cholera in the northern part of the country beginning in October of 2010 resulted in almost half a million cases and over 6,600 deaths. These devastating effects were no doubt made possible by the lack of potable water and deplorable hygienic conditions in the country. In the Spring of 2011, Haiti held its national elections, with Michel Martelly eventually emerging as the people's choice for president of the country. Since taking office, President Martelly has had many challenges to overcome, not the least of which has been establishing his cabinet in cooperation with the Parliament, assessing the needs of the various ministries under his direction, and coping with the myriad of relief and rebuilding activities being conducted in Haiti by numerous organizations over which he has very little control.

The Task Force received a short telephonic briefing by USAID representatives in the Fall of 2011, in which they outlined progress being made in the relief efforts, including the infrastructure sector, such as the removal of rubble and debris and distribution of drinking water. However, progress with regard to food and agriculture was reported as being slow to begin, but that some projects were underway that should provide farmers with needed training. Specifically, the WINNER project was mentioned. This project, led by Chemonics International, with support from the University of Florida, began a year before the earthquake

as a five-year effort. As part of USAID's Feed the Future West initiative as a result of the earthquake, the project was said to have renewed focus on sustainably increasing the incomes of rural households through improved agricultural production, stabilization of watersheds, and strengthening of markets.

In September 2012 (approximately one year after the briefing), the Haiti Task Force obtained permission from BIFAD to return to Haiti in order to ascertain progress made. The Task Force members who participated in this trip included the Honorable Marty McVey and Dr. Elsa Murano, both members of BIFAD, as well as Dr. Dennis Shannon of Auburn University. The trip was organized by USAID, with participation by representatives from the Bureau of Food Security in Washington, DC as well as the Mission office in Port-Au-Prince. The schedule included a field trip to review some of the WINNER Project facilities, which included interactions with farmers as well as project personnel from Chemonics International and the University of Florida. The Task Force delegation also visited with the Director General of the Ministry of Agriculture, Lyonel Valbrun, as well as with officials with the Ministry of Commerce, the Dean of Agriculture Dr. Jacques Blaise and other faculty at the State University of Haiti, and the Dean of the Faculty of Agricultural Sciences and the Environment, Edmond Magny at Quisqueya University. In addition, discussions were held with Enrique Brenes of USDA, who is the person in charge of implementing the PASA mentioned above, Dr. Valentin Abe, Director of Caribbean Harvest, a very successful aquaculture enterprise in Haiti, and also with Dr. Budry Bayard, a former employee of the Ministry of Agriculture, who is now a consultant for non-governmental organizations conducting projects in Haiti. Finally, meetings were held with Ambassador Pam White, the new U.S. Ambassador to Haiti.

It is worth noting that although the Task Force only visited part of the WINNER Project sites and participated in a meeting with USDA regarding the PASA, it was made aware by the USAID Haiti Mission personnel that there are two other major initiatives or projects currently being conducted in Haiti. These are:

- **DEED** – the Economic Development for a Sustainable Environment project, begun in January of 2008 and set to end in September of 2012, conducted by Development

Alternatives Inc. focused on improving quality of Cacao trees and cocoa beans for export.

- **HAITI HOPE** – a public-private partnership between USAID, the Coca-Cola Company, the International Development Bank, and TechnoServe, begun September 2010 and set to end in August of 2015, focused on mango export market.

It is also worth pointing out that both the WINNER Project and DEED were started before the earthquake of 2010. It was not made clear to the Task Force whether the focus or scope of either of these projects changed as a result of the earthquake.

IV. Direct Observations by the Task Force

In spite of the reported progress, the Haiti Task Force made the several observations with regard to the efforts underway to rehabilitate the food and agriculture sectors in Haiti. First, a watershed rehabilitation project of the right bank of the Riviere Blanche demonstrated the positive impact of having access to water in improving the life of a community. As part of the project, retainer walls were constructed to control the flow of sediment from the hillsides into the riverbed, where a well was dug and trenches rehabilitated to allow for the free-flow of underground water to feed the town and the agriculture plots in the vicinity. Needless to say, this was of great help to the townspeople in terms of their ability to use water for all their needs. However, this water was not of potable quality, given that it ran through concrete open-air trenches. In addition, residents were still using the small creeks that remained on the dried riverbed to bathe in and to provide water for their animals.

The major engineering efforts seen were aimed at repairing the damage caused by flooding at the foot of the mountain range (treating the symptoms), but do not address the problem at its source. Watershed rehabilitation efforts need to address the entire watershed, focusing on the points where runoff from fields in the upper and middle watershed enter the drainage channels and streams in order to reduce peak flow rates downstream and to reduce sediment entering streams, both of which contribute to damage of irrigation systems and destruction of life and property. Thus, an integrated approach to address soil and water conservation on a watershed basis is still lacking in Haiti.

At the WINNER farm facilities in Bas Boen, which are owned by the Ministry of Agriculture, there were demonstration plots set up for a variety of crops that were used in agriculture production workshops taught to local farmers at the facility. In addition, demonstration greenhouses were being used to showcase drip irrigation technology of horticultural crops, including electric pumping of well water. Finally, there is a diagnostic laboratory facility on the premises, staffed with trained professionals who conduct several tests with regard to plant health and plant quality. During a question and answer session with local farmers trained at the facility, they cited access to irrigation water and access to credit as their two most pressing needs. The cost of using electricity to pump water out of wells was also discussed as an impediment, as was the cost of purchasing a greenhouse, which was quoted at USD\$3,500. Given the fact that farmers earn no more than about USD\$800/year, this was deemed by the farmers to be an insurmountable expense, especially since they are not able to secure bank loans. It should be noted that the use of greenhouses is part of a strategy within the WINNER project to reduce the planting of crops on the hillsides by farmers. Over the years, hillside planting has resulted in the loss of trees and, most importantly, in soil erosion. Therefore, as part of the WINNER project, trees are being planted on the hillsides in order to address this problem.

At the WINNER rice production project in the Cul de Sac region, there were demonstration rice plots utilizing no-flood irrigation, as well as two rice mills. A federation of several thousand rice producers has been established, who receive training in the use of equipment that helps the planting of rice in rows as well as weed segregation, which is needed when non-flood methods of irrigation are employed. The rice mills purchased with funds from the project hull the rice, removing the chaff from the grain, and further separate it from the bran. This operation has also allowed the rice federation farmers to have a way to market their product. However, the rice being produced is over 40% broken, due mainly to poor drying techniques and poor equipment. It was mentioned that the new mill has reduced breakage to 15 – 25%, which is an improvement but still well below the standards of the international rice industry. Broken rice does not keep as long during storage as whole kernels, and so it is considered of lower grade by the rice industry. Moreover, the rice being produced through this federation is

currently being sold to relief organizations in Port-Au-Prince for free distribution by organizations such as Save the Children, CARE, and Catholic Relief Services. It is unclear how this operation would be sustainable over the long term, given that the buyers of the rice are themselves dependent on donors and are, therefore, not true participants in a free market. In addition, equipment that would be needed in the future, such as rice mills, is subject to high tariffs by the Government of Haiti upon entry, making it difficult for farmers to expand their operation.

The University of Florida provides technical assistance to the WINNER Project as a subcontractor to Chemonics International. Their contribution is significant in terms of baseline soil testing in two areas, development of a soil testing laboratory and a virtual plant diagnostic center, and also support to the greenhouse program. They also are training eight graduate students funded by the WINNER Project. However, the disciplines of study and the research topics of the students were selected by the individual students and were not based upon any assessment of manpower needs. Thus, although thesis research is to be carried out in Haiti, the graduate research projects are not necessarily related to the goals of the project. While not minimizing the contributions made by the University of Florida, its potential to have a long-term impact on Haitian agriculture and the goals of the WINNER Project is restricted by the fact that it does not have a mandate to carry out applied research as part of the WINNER project.

Discussions with the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) regarding training seemed focused entirely on developing training for the teachers and administrators of the agricultural technical schools. There does not appear to be any vision of what an invigorated Ministry of Agriculture will need in terms of technical expertise to lead national agricultural programs and to replace aging staff in the Ministry.

V. Issues that Need to be Addressed.

There are four major issues that the Task Force has identified as needing to be addressed if significant improvement is to be realized.

Sustainability - the projects observed lack sustainability from the standpoint of a trained workforce in Haiti that could take over the duties currently being carried out by project

personnel. For example, it is expected that farmers trained as part of the WINNER project will themselves become trainers after the project concludes through the charging of training fees. It is doubtful that such a model would work, given the scarce resources of farmers, and given the lack of incentive for those who are trained to share their knowledge freely with others they may see as competitors. In addition, and as was observed in the rice production project, depending on relief organizations as the purchasers of agricultural products will only last as long as relief organizations are in operation. Such a co-dependent relationship creates an artificial market that will not stand the test of time since it is solely dependent on donations and not the marketplace. Importantly, sustainability of the research and training centers in terms of their ability to remain viable agents of change is also in doubt, due to personnel and funding issues in the Ministry of Agriculture in which professionals are not adequately compensated for their work. This is a significant obstacle to building the capacity of the Ministry itself, given that such professionals tend to either not return to work in Haiti, or if they do, it is to work for NGOs in projects funded by USAID, and not for the government. The average monthly salary for these professionals is between \$1,200 USD and \$1,500 USD per month, an amount far lower than would be earned outside of Haiti.

- **Accessibility** - it is undeniably true that having the ability to acquire new technologies that can simplify and increase the efficiency of production operations must be part of the solution to the problem of rebuilding Haitian agriculture. Greenhouses, for example, allow for greater control of the growing environment of plants, helping to improve food production in marginal environments with low soil fertility and little water available for irrigation. Acquisition of such capital investments is of utmost importance and depends heavily on the ability of producers to band together to share these types of assets, such as takes place within producer cooperatives. Continued access to replacement parts and technical support at reasonable cost is critical to sustainability. In addition, acquisition requires having access to credit, which in Haiti cannot take place easily, given that farmers do not enjoy legal status in that country. Finally, acquisition of knowledge through well-

trained extension specialists will help producers and others have the necessary information to be successful.

- **Taxation** - having to pay high tariffs to import equipment, as well as other inputs such as fertilizer and seed that are necessary to build a business, makes it nearly impossible for new ventures to be established in Haiti. Similarly, processing equipment such as produce washing stations, not to mention more advanced equipment used for blanching of vegetables, juicing, pasteurization, cooking, drying, and freezing are part and parcel of operations that can add value to raw commodities. This is where value is added and where the most profit can be realized, yet there is almost no food processing industry in Haiti, and the projects being funded by USAID are seriously lacking in this component, being almost entirely focused on production at the farm. Even in the Haiti Hope project, which involves a partnership with a U.S. beverage company, there is no participation by Haitian businesses in value addition.
- **Business Planning** – studies have been conducted by many stakeholders that identify the commodities that should bring the most growth and profit to the food and agriculture sectors in Haiti. However, there is little evidence of business planning in the projects the Task Force witnessed. The issue of product quality, for example, is critical if an industry is to compete effectively in the market place. The rice project we visited could benefit from a business plan being drafted that helps farmers produce high-quality rice that can compete domestically with imported products. Similarly, world cocoa prices are seeing a resurgence, yet Haitian cocoa production is still at a very low level. In fact, the issue of marketing with an eye towards exports is a major strategy that seems to be lacking in favor of production for domestic consumption. Even when it is being focused on, it is limited to production of raw commodities without value addition, which is where most of the profits are made.

VI. Recommended Strategies.

After much deliberation, the Task Force has developed the following specific key strategies that could be applied to address the issues identified above:

- Farmers must have access to credit
 - A government policy needs to be developed that gives farmers legal status so they can secure business loans in order to purchase capital equipment and other inputs that can help them support their operations.
- Farmers must be independent
 - A government policy needs to be developed that facilitates the formation of cooperatives. Currently, it takes about two years for this to take place, which inhibits the ability for farmers to form groups that provide them the ability to pool resources, as well as serve as centers for information dissemination and technical support. Farmers are forced into relationships that may be exploitive in an effort to avoid the lengthy delay of a two-year wait period.
- Industries must be incentivized
 - A government policy that freezes tariffs on inputs that are used to establish new business operations, and extending to support existing ones. The lack of incentives for industry is preventing international corporations from venturing into Haiti to create new businesses and industries. Providing incentives, on the other hand, will create jobs, as well as future taxable income and foreign investments.
- Export markets must be sought
 - Development of sustainable, consumer-driven business plans that look to the investment in the production of commodities, and of products derived from these, that make use of the competitive advantages of Haiti. Opportunities for value addition of competitive products must also be included, specifically the establishment of key food processing operations that can propel Haitian products into the world market by increasing their quality and value.

- All plans must be long-term and integrated
 - Development of capacity building and research and extension programs that seek to train the leaders of tomorrow in terms of agronomists, environmental and natural resources specialists, animal scientists, food scientists, marketing and business experts, etc. The types of graduate training provided should be determined based upon a comprehensive review of the programmatic needs and disciplines needed to transform Haitian agriculture. This should include supporting technical and vocational schools as training foci for extension agents that would work for the Ministry of Agriculture, Industry, Commerce, and State in providing technical assistance to producers, as well as university researchers and teachers that would engage with private industry, with universities serving to educate Haitians to enter the food industry workforce, as well as serving as business development and technical resources for new start-up businesses and investors.
 - Capacity building must also focus on reform of the Ministry of Agriculture to be able to provide leadership for agricultural development in Haiti in the 21st century. This should include public sector reform to enable the Ministry to financially retain personnel trained at the graduate level. A programmatic assessment should be made to determine the types and levels of expertise required in order to establish and lead national research and extension programs that address the priority needs of Haitian agriculture and ensure an efficient and viable administration.