**REPORT ON THE ACTIVITIES OF CBG-WA GIVE WATER GIVE LIFE: NOVEMBER 2014 - July 2015**

INTRODUCTION

Community Building Group - West Africa (CBG-WA) provides an enabling environment for development of indigenous scientific and innovative ideas for sustainable development. The focus is rural Sahelian Burkina Faso, and with the ambition to intervene in the region of West Africa. CBG-WA equips rural people, especially women, to have substantial resources to address climate calamities; improve access to water; utilize new technologies such as the abstraction of rainwater in retentions ponds; water filtration techniques; and the use of renewable energy for water pumping. CBG-WA essential goals:

a) Promote the collection and storage of rainwater through pools of retention and "water boulis" on a small scale in rural drylands;

b) Strengthen the capacity of rural access to clean water through the promotion and popularization of stabilized wells coupled with solar pumping technology and water filtration;

c) Promote use of renewable energy to improve access to water in the Sahel;

d) Promote and improve the integrated management of rural water in general and the Sahel in particular, including the development of small village irrigation.

**ACTIVITIES**

Activities from November 2014 to July 2015; and proposed activities through December 2016:

From January 2014 to December 2014

• The CBG-WA team conducted thirty field missions to plan the implementation of interventions.

• The missions include mobilization, animation, and sensitizing the populations on activities related to the water basin and its benefits. To this end, the first beneficiaries demonstrate great interest and enthusiasm for all that water from the basin provides. Immediately committed, the population seemed aptly prepared to greatly invest in future activities concerning the rehabilitation of the existing and damaged bouli in order to make it functional and long lasting.

• The CBG-WA team also enabled capacity building of the people on the management and maintenance of water works (RWCB) in the village of Siséné. Included is work with 1,100 women around the sustainable management of the rainwater catchment basin; how to maintain the work for the long-term; and saving money to have for any necessary maintenance repairs.

• A forward-looking mission that began in early 2014 and then continued to the end of 2014 enabled the identification, selection, and choice of an engineering office called AICET to conduct the technical and financial study of the basin in Sisene. To this end, a Memorandum of Understanding referred MoU No. 001 / GWGL Program was signed between the CBG-WA and AICET to complete the design repair.

• In a partnership between Florida International University’s WA-WASH program and CBG-WA Give Water Give Life, WA-WASH researched a way to equip the village of Siséné with two water pumps. Missions were carried out in this direction to facilitate the introduction of WA-WASH through Winrock Company who was in charge of exploration and installing these pumps. But for reasons of technologies used and the structure and texture of the soil in the village, the pumps could not be installed.

From January 2015 to April 2015

• CBG-WA Give Water Give Life team conducted introduction missions responsible for the feasibility study and application for a frank collaboration with the population of Siséné. These have enabled the company AICET to inquire about the village basin, and to understand the physical, human and social requirements to make the basin sustainable. The design of the reconstruction of RWCB Siséné was entrusted to AICET who was also responsible for finding a company to do the construction in compliance with the terms of the technical study.

• In April, 2015, the AICET Bouli Rehabilitation Technical Study Siséné was completed and the Getes company was selected to perform the reconstruction. To this end, a second cpntract was signed between GWGL and Getae. This protocol is called protocol agreement No. 002 / GWGL Program. The implementation of this technical study that has been entrusted to the company Getes experienced the actual start and completion of the rehabilitation work. Getes provided social engineers to work in Sisene. Getes company was introduced and meetings were held to seek the cooperation of the villagers and their participation in the work.

• The rehabilitation was done under the control of the company AICET justify the signing of a second contract now called Memorandum of Understanding No. 002 / GWGL Program.

• Since the start of the work, GWGL has conducted weekly visits to the village of Sisene. Team assignments include monitoring, task by task during the project rehabilitation. Within forty five (45) days of implementation to be counted from the 16th of April, the company began actual installation on the site with the excavation work; protecting sections of the spillway; and retaining continuous progress. Stones were collected of various sizes and weight to constitute the gabionade securely; and finally the topographical location of the axis of the weir was observed to materialize the total station unit. After two weeks of work, the company Getes had a progress rate of 56.6% against work within 44% of the allotted time. The audit was judged satisfactory work at that time.

From May 2015 to July 2015

Also in 2015, the CBG-WA Team continued working alongside rural populations. Activities of the team include:

• Completion of the review of the tasks performed for the rehabilitation of the basin in Siséné. In this regard, the control had determined the date of 21 May 2015 that the progress was satisfactory to date for 85% of executive tasks were against a time limit of 75% consumed. He also invited the company to complete all remaining work seen by a reception program 26 May 2015.

• With the arrival of Kathleen McDonald in Burkina Faso, the team conducted field visits to Siséné, Kamsi, Djomga and Dantchadi. A positive balance was noted except in Siséné where villagers were somewhat confused about the costs of the repairs; and did not want to get involved as necessary for the smooth running of the project. In Siséné, an awareness session on the care and treatment of gullies in the basin has been conducted.

• The rehabilitation of the rainwater basin was completed at the end of May, and GWGL proceeded to receive the work. Note that with completion, the mobilization of the population was below our expectations.

• In the third week of June, there were reports of water leakage below the threshold of the basin in Sisene following a rain downpour. The CBG-WA team conducted a mission to establish the facts and discuss with the companies in charge of rehabilitation the measures needed to be taken. A second visit was also made.

• With the arrival of Faisal Ouédraogo in the month of July, the team conducted field visits to Kamsi, Siséné and Djomga. The purpose of these trips was to ensure that people believe and are available to get involved physically and financially in future projects in their respective village. By order of the Executive Director of CBG-WA, concomitantly, three (3) engineering groups visited separately basins in Siséné and Kamsi for prospecting sites, and inquire about the technical constraints to achieve the completion of a technical study. Complete information was collected to help unlock funding from Friends of Burkina Faso based in Washington.

To consolidate our achievements and look for other potential donors, we have taken steps to introduce the incentive Give Water Give Life program, and explain the impact and interest in the socioeconomic development of Burkina Faso. So we met:

• The US ambassador to Burkina Faso His Excellency Mr Tulinabo Mushingi. At the end of the project presentation, Mr Ambassador asked us to draft and submit it for consideration. He even recommended his counterpart in Japan, which we have welcomed as it demonstrates its willingness to assist the program by all means.

• The Ambassador of Japan in Burkina HE Mr Masato Futaishi received us, and in turn, he also testified to have particular interest in our project. He advised us to complete their funding application form and return it to their embassy.

• The head of US-African Development Foundation, Natalie Tingueri, met with the CBG-WA team. She also expressed serious interest in our Give Water Give Life program and offered to see to what extent the US-ADF could have its structure also accompany the project. At the end of the interview, a concept note was asked to be produced for a possible grant.

**• The use of satellite imagery is making this project successful:** Several processes are conducted, including land surface features classification to distinguish water bodies (exiting or past), runoff direction, vegetation, land use, etc. The Landsat bands are layer stacked in a composite false colour to distinguish features. After layer stacking, the images are mosaicked, and then classified for sorting the pixel into finite number of individual classes of data based on their digital values. Then, the normalized difference vegetation index and other spectral indices of interest are computed to verify changes occurring between images (before and after) over the project area, and to detect presence or absence of water over time in the project area. The visible and near-infrared bands are better detecting water body at the land surface. GiveWater GiveLife program remote sensing technique to process satellite data which requires several steps that include radiometric and atmospheric correction, layer stacking, classification, water body threshold extraction, raster mosaicking, bands combination, change detection and spectral indexes calculation, so on. The most likely place where water is stored over certain periods can be visualized over time, depending on how many historical scenes we compile. Then, the location characterization such as surface slope and aspect, watershed, route intra-visibility, painted relief and the raster contour lines can be computed. For the land topography, other tools can help capture this information, or it can also be collected from the ground to support the satellites-based results. By overlapping information, we can evidently know the most appropriate location for water storage; and the extent of its capacity. Using satellite imagery to determine water flow direction helps to determine where to embed the emergency spillways in the design of the rainwater catchment basin. In addition, information is collected from the ground with GPS devices, and transferred into a remote sensing tool using DNRS tool. Space-based satellite observation helps move beyond the point-based readings provided by gauge networks of basin-wide runoff, storage sites, and water geo-information. Local information and knowledge is also collected. In the country, local people still use the dowsing technique known as empirical method to detect water aquifer. So, this information together with the satellites imagery and ground geo-referencing information guides the choice of the right location for constructing the rainwater catchment basin in the targeted village. Choice of the villages for participation in the program include other factors such as local communities’ commitment and agreement to the project, distance of the basin to the village (too far from the village? or too close to the houses), and participation throughout the process.

• The CBG-WA team visited the Fraternal Union of the Faithful (CFU) of DORI an NGO that works in the construction of boulis to promote peace and development in the region. We had a meeting with his manager Mr Simporé who explained the functioning of the UFC and expressed great interest in satellite technology to support them in identifying sites suitable for the construction of boulis.

• Previously we have taken steps to better understand the strategy of the government to the Ministry of Agriculture, as well as to the Ministry of Environment for prospecting funding to local NGOs and associations in Burkina Faso

Other complementary activities were carried out such as:

• obtaining agreement of Proceedings of CBG-WA. Since the introduction of the file, several meetings were conducted with collaborators to facilitate obtaining the receipt. Which was effective June 25, 2015 and we have registered it in the official gazette of the government.

• Drafting of the document projects the US Embassy and Japan and looking for more information on the modes and methods of response and procedures embassies financing in Burkina Faso;

• Mobilization and dissemination of information on the website of Global Giving. Accurate information collected during various missions were posted on the website of Global Giving to raise awareness of the project on electrification with solar panels. To this end, pictures and quotes have been posted on the site.

• Procedures for opening the account CBG-WA. The documents necessary for opening the account have been collected and the opening was effective July 23 2015.

ACTIVITIES CONDUCTED continuously:

• The project document of the US Embassy to be deposited;

• The form of the Embassy of Japan also needs to be deposited;

• The concept note of US-ADF must also be filed, which note will probably be ready this week and will be sent to the coordinator of US-ADF. The CBG-WA team in Ouagadougou had several meetings and discussions by telephone with skype and its Executive Director to inquire about innovative ideas that may interest US-ADF.

January 2016 - December 2016

When various financing is acquired, GWGL must undertake the following activities:

• Apply to project funding at the local level the various ministries, and embassies and diplomatic representatives in Burkina Faso.

• Conduct feasibility studies for the construction of structures to Kamsi and Djomga;

• Construct the water retention basins or Boulis itself in these two villages;

• Organise training sessions and awareness on maintenance and management of completed works related to water points and filtering system;

• Install simultaneously a first type of solar panel and the drilling coupled with the filtration system for drinking water obtained in each village;

• Install a drip irrigation system in the two villages;

• Install the second type of solar panel to be used for the electrification of the two villages to the education of girls;

• Organize two training sessions and awareness on the use but also the care and maintenance of solar panels in general;

• Organize functional literacy training to benefit girls in the participating villages.