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Impact Evaluation of the Development Assistance Program

Agricultural and Natural Resources Management Component

PL480- Title II

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Foreword

This document constitutes the evaluation report of the DAP Agricultural and Natural Resources Management component. Funded by USAID through the PL 480 Title II, the DAP is implemented by four international non-governmental organizations (CARE, WORLD VISION, CRS and SAVE THE CHILDREN) currently defined as USAID cooperating sponsors (CS). The coordination of the works was assured by the consultant Jocelyn LOUISSAINT, as leader of the evaluation team. Other members of the team were Jean Chariot MICHEL, Dario Styve CELESTIN and Marcelin NORVILUS, respectively assistant coordinator and consultants. The submission of the report is stipulated as one of the contract clauses between the team leader and the USAID representative (Purchase order).

The evaluation team wants to thank all the farmers in the DAP zones of interventions who kindly responded to the multiple questions of the surveyors during the data collection phase, the numerous responsible and field staff of the CSs for their support and collaboration through all the conduct of the assessment. May this study bring its modest contribution to a better orientation of the program for the benefits of the most vulnerable farmers groups in the targeted rural areas.

Executive summary

The Development Assistance Program (DAP) is implemented in Haiti under the PL480 title II since year 2002 and should reach its completion date by year 2006. However, it was extended for one additional year (2007). It is implemented in four geographic zones in the country by four USAID partners, namely: CARE, CRS, World Vision and Save the Children.

The DAP ultimate goal is to reduce food insecurity in the targeted zones through increasing the availability of and access to food while at the same time improving the utilization biological resources.

This final evaluation of the DAP Agricultural and Natural Resources component is undertaken before the end of the program completion date so that the lessons learned be used as references for the preparation of a new phase and orientation for a new program. The main purpose of the evaluation is to determine the successful activities and those which totally or partly failed in a way to better calibrate future developmental interventions.

The evaluation survey thoroughly collected data and information on the situation before the program implementation through interviewing the beneficiaries groups, while outlining the evidence of changes in the farmers livelihoods caused by the program activities.

The methodology included the following steps:

- The preparatory phase, which consisted in the review of all documents related to the DAP, in meetings with directors and staff of the various CSs for a first presentation of the project activities and the preparation of the formal survey.

- The sampling, which started with the setting up of the number of beneficiaries per CS. A percent of 6% served as the basis for the determination of our sampling size**,** which reached 736 farmers for the whole program. We finally opted for the randomly stratified sampling.

- The field data collection for the formal survey was realized by a group of surveyors and supervisors assisted by the consultants. However, other complementary methods allowed the completion of the information. They are the non-equivalent witness groups and interviews hold with key informants.

- The treatment and the analysis of the data.

The results of the evaluation allowed determining the level of success of the activities. Concerning the improved seeds, the performance revealed very satisfactory, except in CRS' areas of interventions where 76% stated that the harvest from the improved seeds was a failure compared to the one of the traditional seeds. For the other CSs, 68 to 93% confessed that the harvest from the improved seeds was higher. This activity mobilized most farmers in all the zones (more than 75%).

Grafting fruit trees and bio-intensive gardens improved techniques were practiced in most of the zones and allowed an increase in the farmers' incomes through profit generated by some highly valued cash crops. The green vegetables bio-intensive gardens were, however, not implemented by CRS. CARE reached 65% of its targeted groups by the grafted fruit trees activity, followed by World Vision (52%), with STCH and

CRS reaching only 25%. However, for the bio-intensive gardens, the participation of the targeted groups is higher for SAVE and CARE, reaching respectively 62% and 56% compared to World Vision (22%).

Soil conservation displayed an appreciable success rate with an important level of the farmer's participation, except for STCH where it oscillates only around 50%. The types of soil conservation structures observed are mainly: hedgerows, trash barriers, rock walls and billons. The observed structures are built according the technical norms, which can warrant their efficiency to more 75% and in some cases, till 98%. The level of satisfaction for crops yield obtained, as a result of the installation of these structures, exceed 88% for all the crops in all the zones of the program. The soil conservation structures further contributed to the humidity retention in the soil and are highly appreciated by a large majority of farmers.

Seedlings production and tree planting have mobilized a percent of the targeted population that varies from 55% to 94%. In general, forest and fruit trees are planted and will constitute a supplemental source of revenues for the farmers.

The allocation of credit to production allowed 85% of the DAP beneficiaries for CARE to increase their agricultural production. The agricultural products vary from one CS to another for in-kind credit, but most of the time, consisted in beans, plantain and corn, a strategy, which eases the farmers' acquisition of seeds. In the case of CRS, it is only 23% that mentioned that credit to bean and plantain seeds production allowed them to increase their agricultural production.

The commercialization, the storage and the processing of agricultural products have mobilized quite a weak percentage of farmers, particularly in the CARE zones. However, this activity is susceptible to encourage the production through providing markets to the farmers.

Livestock rising and the selling of animals, which consisted mainly in the distribution of pigs and chickens, are activities assisted by all the CSs. However, problems linked to the death of the chickens and a lack of veterinary care services were, most of the time raised.

Generally speaking, for the four CSs, the improved seeds activities reached a level of success higher than 70% brought by the adoption level, the germinating rate of the seeds and growing rate of the resulted seedlings, by their resistance to diseases and to the yield obtained. The failure rate of 30% can be associated to the delay encountered during the seeds distribution and the absence of a specific approach, which would encourage the development of partnership between the sector's operators that would warrant the sustainability of the activity.

Concerning the improved techniques, the level of success shows an average rate of 60% for all the CSs, which can be interpreted as a result of the adoption rate and additional revenues generated by this activity. The failure of 40% can be attributed to a lack of assimilation of the vulgarized techniques, the weakness of the support provided in the field, that was deemed very limited and the phytosanitary problems particularly observed for the vegetables crops.

The Soil conservation activities were successful at an average of 75%, not only because of the high adoption rate by the beneficiaries of all the categories of farmers, but also as a result of the efficiency most of the installed structures and their maintenance by the farmers. However, the inefficiency of the trash barriers and the abusive utilization of the hedgerows as fodders can be considered as the weaknesses of this activity, which shows a failure rate of 25%.

Seedlings production shows an average of 78% as a successful activity for the four CSs, due to its high level of adoption. This rate is higher for the big farmers who produce and transplant much more seedlings than the small farmers and middle-class ones. However, a particular emphasis should be put on the fruit

trees, which can generate additional revenues to the families. The failure rate can be attributed to the fact the seedlings planted are, most of the time, not well maintained and hence are destroyed because of the free livestock rising. The versants under steep slopes are also neglected.

The activities of storage, commercialization and livestock rising failed all due to the fact that they were not really developed in the DAP areas of interventions. This is particularly due to a lack of investment, to the precarity of the local conditions and to the absence of partnership with the other entities, notably the state public instances. New strategies need to be defined for these components.

In terms of recommendations for the program reorientation, it is worth mentioning the following:

- Reinforcing the investments in the agricultural sector;
- Reinforcing the soil conservation activities, in order to bring appropriate responses that match with the extent of erosion, while, at the same time, developing a conservatory and productive;
- Implementing a comprehensive approach that addresses food insecurity and poverty, which is associated with a strategy of wealth creation through economic enterprises articulated to the local production network;
- Increase the participation of the beneficiaries to improve the level of the program appropriation;
- Diversify the technical propositions based on the various identified needs;
- Develop a partnership with the public institutions and the cities and other community-based organizations in order to improve the overall efficiency of the program; and
- Taking into account the gender issue through encouraging the women participation.

1 General Presentation of the Study

1.1 Brief description of the program

The Development Assistance Program (DAP) is implemented in Haiti under the PL480 title II. The program duration was envisioned for the period between year 2002 and year 2006. However, it was extended for one additional year (2007). It is implemented in four geographic zones of the country by four USAID partners, as follows: CARE, operating in the Northwest and in the Grand'Anse; CRS, in the South and in the Grand'Anse, World Vision and Save the Children, sharing them the Central Plateau.

1.2 Political and social context of the program

The Haitian society is facing a crucial problem of poverty characterized by a situation of social exclusion, which affect most of the Haitian population groups, notably the rural ones. The lack of dynamism of the different sectors of the country's economy justifies the weakness of the process for wealth creation. The modest results of the agricultural sector portray the problem of technicity, of scale economy and of production.

According to data published by IHSI, 55% of the population lives with less than one $ 1.00 US a day, 76%, with less than 2 dollars. In these conditions, 4/5 of the population can not satisfy their basic needs.

According to UNDP report on Human Development of 2005, life expectation at birth in Haiti by 2003 was 53, 7 years. Only 71% of the population has access to potable water and malnutrition affects 47% of the population. The precarity of such socio-economical situation explains the various coping strategies of the population with repercussions over the over exploitation of the natural resources, the migration and even on the recuperation of individuals from the most vulnerable groups by the armed gangs.

The data available for the last five years indicate that food insecurity ended with high rate of malnutrition, notably for the children of the group 0-5 years: 23% of these children are affected by a chronic malnutrition, 5%, with acute malnutrition and 17%, with a low weight-for-age. This phenomenon contributes also to a high rate of infant mortality (12%), accentuated by bad sanitary conditions and by a limited access to basic services. This picture is again more dramatic when we consider that Haiti is exposed to numerous natural disasters (hurricanes, floods, land sliding etc.).

1.3 Organization in charge of the execution of the program

The Development Assistance Program is implemented by four Title II cooperating sponsors, namely: CARE, CRS, World Vision and Save the Children. CARE and World Vision implement their activities directly with their field technicians, whereas CRS executes the DAP under a partnership with CARITAS in Les Cayes and Save The Children, with MARCH and HAS (Hospital Albert Schweitzer).

1.4 Objectives of the program

The goal of the program is to improve the food security through the following objectives:

1) Increase the productivity through improved agricultural practices and natural resources management;
2) Increase the revenues through improved services of credit and access to markets;

3) Improve food utilization through interventions in maternal and child health;
4) Improve the productive infrastructures and the markets

Each DAP implementing partner developed specific activities that allows them to reach the objectives of the program as developed in the following paragraphs.

1.4.1. CARE

Concerning the Agricultural and Natural Resources Management component, it was question to increase the agricultural production and the families revenues through some improved agricultural and soil conservation practices and to favor the increase of the access to market, to micro-credit and the basic training in management of income increase activities, with special attention to women. This DAP component is executed in the Northwest mainly in the two communes of Bombardopolis and Bassin Bleu.

According to the mid-term evaluation for the Northwest, the Ag component constitutes the strategic objective # 2 for the DAP program. It was aimed to increase the revenues of 7000 farmers by year 2006. Three approaches were then used for the improvement of the agricultural productivity and the household's revenues:

The first consists in the recruitment and the training of agricultural extension's agents (one man and one woman in each community) in order to promote the agricultural techniques, the soil conservation techniques, livestock rising and storage. The second approach uses the system Food for Work as resources to support the communities in the identification development projects. The third one consists in the provision of institutional support to providers of financial services.

In order to reach its goal, the project defined four main specific objectives:

1) Increase the agricultural productivity through the usage of sustainable practice.

The activities envisioned for that purpose are summarized as follows:
- Provision of training to 70 agents for the promotion of agricultural techniques (grafting, Bio-intensive garden), animal health, storage and soil conservation;
- Provision of support to the agents as to enable them to train, in turn, at least 7000 farmers;
- Introduction and distribution of improved and adapted vegetative planting materials to at least 1600 farmers;
- Provision of support to local veterinary agents to assist farmer's participation in the project.

The activities would be implemented in areas with high potential production and would put the emphasis on practices that could immediately increase the farmer's revenues and better respond to the farmers needs. The continuity of these activities would be assured once the farmers caught the economic rentability of the implementation.

2) Increase the sales of both crude and processed agricultural products.

The actions envisioned are the following:
- Training of 200 farmers on improved storage techniques;
- Training of 1600 farmers on improved commercialization techniques;
- Training of 300 farmers on crop processing techniques;
- Improvement of roads infrastructures to facilitate the access to the markets in 25 localities;

- Provision of assistance to 3 financial institutions and approbation of credit for at least 20 community projects.

The households and women associations with viable activities would be trained to develop businesses plans and put in contact with agencies that offer some assistance in Ag-processing. The revenue of the households would be improved through increasing the value of their sales by means of processing techniques, storage and commercialization. The *food for work* activities would be used to facilitate the access to market.

3) Reduction of erosion process in the areas of interventions of the program.

What follows represent the planned activities:

- Production and distribution of 5 millions forest tree seedlings;
- Production et distribution de 500.000 fruits tree seedlings;
- Training and support in the installation of the structures of soil conservation (500 has to protect).

The communities would select the specific techniques in order to mitigate the erosion process and increase soil productivity. Gully plugs techniques and measures of conservation de sols on the farmer's plots and tree planting would be vulgarized.

4) Increase the community preparedness for emergency situations.

The actions envisaged are the following:
- Provision of training to the communities in the development of an Early Warning System and appropriate strategies for the mitigation of risks and disasters; and
- Publication of monthly Early Warning bulletin for the Northwest.

The program would work with the communities in order to identify and reduce the effects of the natural disasters. The publication of the bulletin NEWS would draw the attention of the decision-makers on the imminence of the emergency situations.

The key intervention strategy of the program would consist in addressing the beneficiaries needs, in providing a negotiated support limited in time, in the assurance of economic, institutional, technical and environmental sustainability to warrant an impact in the short, medium and long term.

1.4.2. CRS (Catholic Relief Services)

The goal of CRS DAP is to substantially reduce the food insecurity level within the vulnerable communities in the southern peninsula with a focus on the South and the Grand'Anse.

To achieve this goal, CRS/Haiti will integrate activities in four sectors:
- Health and Nutrition (Maternal and Child Health, Water and Sanitation, HIV/AIDS, Micro-finance);
- Agriculture
- Food-Assisted Education; and
- Humanitarian Assistance

Concerning the Ag/NRM component, the Strategic objective is to increase access to food for 1,500 families of small farmers in targeted food insecurity zones.

Under the development Assistance Program, CRS interventions aim at three specific results:

1.-Increase the availability of beans and plantains to 1,500 families on 375 hectares in mountains, through the implementation of biological methods of soil conservation, practices for the recuperation of soil fertility, and the provision of improved seeds.

In this sphere, it was planned the following activities:

- Tree planting with 30,000 fruit and forest trees;
- Implementation of practices of natural resources management (anti-erosive structures, organic fertilization, tree planting, grafting, recuperation of soil fertility);
- The setting up of three revolving funds that would go to 1500 farmers in the form of loan for the acquisition of planting materials such as: plantain drag eons, bean seeds for the exploitation of 375 has of land;
- Provision of technical assistance to the farmers.

2. - Improvement of the farmers revenues and availability of animal proteins for 1,500 families through the raising of pigs and improved races of chickens.

With respect to this aspect, it was envisaged the following activities:

- Distribution of 4,500 improved chickens to 1,500 farmers
- Buying and Sales of 1,500 pedigree pigs to 1,500 families
- The setting up of a credit fund for the acquisition and the provision of food for the pigs and the chicken;
- Provision of health services and training to the farmers.

3. - Increase and revenues generation through assisted commercialization for two agricultural products at the level of 1,500 farmers families.

The following activities were planned for the achievement of this result:

- Market identification for the commercialization of the agricultural products
- Realization of an economic survey
- Constitution and support to training for three pre-cooperatives
- Commercialization of products and facilitation between pre-cooperatives and identified buyers

The impact indicators for the project are as follows:

- % increase in the yield of bean among the targeted farmers (391 lbs/ha to 595 lbs/ha).
- % increase in yield for plantain among the targeted farmers (12,652 lbs/ha to 25,000 lbs/ha).
- Duration of food reserves after the harvest (3.5 to 4.5 months)

The main impact indicator of the project for the Intermediate result is the following:

- Increase in the livestock expressed in Tropical Livestock Unit (2.1 to 3.5 TLU)

The main impact indicator of the project for the Intermediate result 3 is the following:

- % increase in profit generated by the commercialized products

1.4.3. World Vision

In the case of World Vision, the agriculture and natural resource management component aim as strategic objective to increase agricultural production and the income of 5400 farmers from all categories in the areas of intervention. More precisely, this component works to:

1. Increase the adoption of improved varieties and technologies
2. Diversify agricultural production in order to increase family access to basic products for alimentation and food security
3. Reconstruct basic productive infrastructures
4. Promote water management in order to increase agricultural productivity

Main activities of this project are :

- Introduction et distribution of improved seeds and good agricultural practices: maize (varieties WPTY et Cottoa), sorghum (Variety Soberrano) et vegetable seeds (cabbage, tomato, eggplant, pepper)
- Filed testing researches
- Improved seeds multiplication
- Vulgarization of conservationist agricultural practices susceptible to improve the soils fertility
- Introduction of new local varieties with high production potential
- Promotion of bio-intensive gardens that could allow the farmers to increase their income
- Promotion of crops having high economic and sale level such as plantain and other commercial fruits (mango, avocado, etc.) in areas having high erosion potential
- Distribution of fruit trees (lemons, mangos, avocadoes and papayas) and forest trees (cedar, acacia, neem, oak, "bois capable")
- Installation of soil Conservation structures (rock walls, contour billons, trash barriers and hedgerows) on steep slopes.
- Production of seedlings and tree planting
- Promotion and vulgarization of irrigation appropriate techniques, rehabilitation of irrigation systems and setting up of water users organizations committee.
- Training on :
    - The preparation of compost
    - Bio-intensive gardens
    - The production of green vegetables
    - Grafted fruit trees
    - Soil and water conservation

1.4.4. Save The Children

The principal goal of the program is to sustainably increase the agricultural production in the targeted zones. The specific objectives of the DAP, as implemented by SAVE and its patterns are:

1. Adoption and improvement of sustainable agricultural practices by the program beneficiaries;
2. Income increase of the community dwellers in the rural areas; and
3. Development of the productive infrastructures in the communities

With respect to the above mentioned objectives, the interventions include the following activities:

- Agricultural extension activities;
- Training of farmers in improved seeds production conservation;
- Income increase linked to harvests;
- Promotion of marketing opportunities integrating the producers in the commercialization circuits;
- Encouraging income generating activities linked to agriculture; and
- Soil conservation activities (reforestation, gully plugs and erosion control) selected by the communities.

1.5 Context and objectives of the evaluation

The Development Assistance Program (DAP) is executed in Haiti under the PL 480 title II since 2002 and would reach its completion date by the end of year 2006. However, it benefited an extension for an additional year, ending in year 2007. The final evaluation should be conducted before the end of the last year, so that the lessons learned serve as guidance for the preparation of the new phase of the project.

Normally, the reference situation that would allow a comparison between the "situation before" with the "situation after" should be established from the baseline study realized prior to the program implementation. However, due to some budgetary constraints, the diagnosis from the departure point for the agricultural/NRM component was deemed somehow weak and couldn't serve as the basis for the reference situation. The current survey has then put the emphasis on the collection of information on the "situation before" from the program beneficiaries groups, while, at the same time, emphasizing the changes in the livelihoods caused by the program implementation. However, in order to assure the fiability of the data on the reference situation and also due to the budgetary constraints, some witness groups allow to reinforce the data related to the situation before the DAP. These groups differ from those of the sampling, not only by their size but also by their late choice. In addition, several key informants in the zones of interventions were able to express their views from semi-informal interviews.

Realized by external consultants, this survey leads to the final assessment aims at determining whether or not the DAP program reached its objectives. More precisely, it allowed establishing correlation among the types of interventions and the improvement of the farmers' livelihoods, specifically their assets and their food security conditions. The main purpose of this evaluation was then to determine the successful activities and those that failed, in a way to draw lessons that could help in the orientation of future interventions.

The evaluation allowed specifically to:

- Identify the agricultural and natural resources management activities realized (improved techniques and innovations per domain)
- Measure the adoption of improved technologies (effective appropriation)

The achievement of these objectives should necessary be analyzed from the following stand points:

- The development and the reinforcement of partnership;
- The reinforcement of the local organizations capacity in natural resources management, such as soil conservation, tree planting and seeds production;
- The changes observed in the farmers coping strategies;
- The reinforcement of the families food security (both in availability and accessibility)
- The changes in the farmers' behavior in natural resources management (agricultural practices, resources management and families survival)

1.6 Methodology and steps of the evaluation work

The methodology included the following steps:

1.6.1 Preparatory phase

- Review of all the documents related to the program (program documents, progress reports, mid-term evaluation etc.);
- Meetings with the DAP directors and the technicians of the four CS, which presented and explained to the evaluation team their respective program activities;

- Preparation of the formal survey: the information collected during the first two steps allowed also a thorough design of the survey. Guidelines for the interviews and questionnaires were also prepared.

1.6.2 Sampling

The procedures for sampling included the steps below:

- **Setting up of the survey population coverage:** In order to ensure the credibility of the aleatory sampling procedure, the total number of households for the program was established for each CS and disaggregated by commune.
- **Determination of the sampling size:** As suggested, the sampling size was set up as 6% of the population total size. This percentage guided the choice of the sampling size in each region. A total of 736 beneficiaries were then considered for the whole program.
- **Sampling method:** In order to reach the *representativeness* of the sampling, we opted for the stratified randomly sampling, which leads us to the following steps:

    A) Identification of the different categories of beneficiaries: Based on the documents related to the DAP, and discussions with the responsible and informal interviews, the population was divided into various categories. The farmers' categorization was based on the single criteria of number of exploited has, due to the fact that the characteristics of the habitat and the number of animals didn't allow to effectively differentiate the farmers. In that vein, we ended with three economic levels of farmers, as to reasonably establish the analysis needs. They are: the small farmers (those who exploit less than 2 has), the middle-class farmers, with the total area under exploitation between 2 and 3 ha, and the big farmers, with more than 3 has.

    B) Stratified randomly sampling : Each category of farmers was then divided into homogeneous groups, from which were extracted the survey samples. For each sub-group (association or locality), an exhaustive list was provided by the responsible of the partners (CS) and verified during the testing of the questionnaire. This task was assigned directly by the Consultants.

1.6.3 Data Collection

With the help of the survey guidelines and the questionnaires previously prepared, the data were collected in the geographic areas of the four CS, including La Gonâve, in order to end with some exhaustive results.

1.6.4 Treatment and data analysis

The software used for the works is the SPSS (Statistical Package for Social Science), which allowed some coherency checking, the data treatment and tabulation. First, it was deemed appropriate to divide the questionnaire in a various groups for registration, define the control specifications before going through the programming. The programs were then tested, as to end with some correct results which effectively picture the realities in the field.

This evaluative survey allowed to collect data that are appropriate to determine the level of success of the DAP interventions. In so doing, the data collected were submitted to analysis that permit to draw some lessons from the program past experience. For this reason, the data analysis was both quantitative and qualitative. The data treatment allowed also two levels of analysis:

1. The Statistical Analysis:

The tabulation work was defined by the team, which, at first, established priorities and elaborated the list of the results in relations with the retained evaluation criteria. The work consisted in the generation of "deductible variables" allowed the consultants to define also the relationship between these variables and the observed ones. The data are then treated and presented under the forms of tables. It is worth mentioning to precise that all the total values indicated in the tables derived from the pond ration indicated directly by the software used, as well as those related to the information on the categories entitled "tous les farmers confounded". Consequently, the figures provided are not simple averages. Adoption rates for new technologies promoted under the DAP and also the rates for achieved expected results for the activities implemented by the CS were also determined. The distribution of the various activities was made according the zone of intervention. The benefits of the activities were evidenced through comparing the impacts with the situation before the program. In any case, the success of one activity is based on the comparison of concrete results with the beneficiaries' level of adoption and expectations.

2. The Non-statistical Analysis:

A cluster of qualitative data gathered from personal observations in the filed, from meetings with the technical team of the CS and also from some both direct and indirect beneficiaries was objectively analyzed. For these different informal interviews, a guideline was first elaborated. The searched information were undertaken in view of identifying the strength and the weaknesses of the program and also aspects related to its sustainability, with a focus on the ecological compatibility, the social insertion and the technical viability of the activities. For example, it was deemed necessary to identify factors that favored the adoption of the promoted technologies under the program, in a way to evidence lessons learned, which may serve for the future interventions orientation. This analysis allowed also completing the statistical analysis, through even highlighting all the process and the modalities for the application of the adopted measures, as well as their efficiency.

2 The Achieved Results

2.1 General considerations on the agricultural situation before the DAP

The results are presented by CS and by sphere of activities in order to allow a better understanding of the impacts of the interventions and their level of appropriation by the three categories of farmers in the targeted communities. This approach allows the outline of each partner specificities. However, it was deemed necessary to make a succinct description of the general situation of the agriculture before the DAP.

The considerations below derive from data collected by the evaluation team not only during the field visit, but also through the reviews of the existing literature. They translate, except for some specificities, the reality of the agricultural sector at the level of various geographical zones before the DAP. In this section, it is considered, turn by turn, the different aspects of agriculture linked to the program, such as: the inputs, the level of production, the management of natural resources, the credit, the storage methods and facilities and the commercialization of the harvested products.

Except for some very limited areas, the agriculture as practiced in the different DAP areas of interventions before its implementation, is particularly a rain fed subsistence agriculture executed by means of very rudimentary tools characteristic of the sector for the whole country. Jeopardized by the environmental degradation, with, in addition, some technical, economical and tenure constraints, it is mainly characterized by some associations of cereals and tubers (maize, congo bean, bean, sorghum, manioc, sweet potatoes and peanuts).

In support to the installation of these staple crops, livestock raising constitutes an important component of the agricultural exploitations, not only in terms of the revenues generated to the families, but also by the revalorization of the agricultural by products. Facing some serious constraints, such as pest problems, animal husbandry is mainly characterized by the dispersion of some small animals (chickens and goats) and by the traditional use of ropes for the big ones (cows, horses and pigs), with no improved races, which are generally more prolific and thus warrant of the household economies.

Before the execution of the DAP, the agricultural activities, generally speaking, are undertaken with a prohibitive lack of inputs in the in the various areas of interventions. Due to the unavailability of improved seeds, cropping is undertaken through the use of grains kept from the past harvests. In addition, fertilizers and pesticides are inaccessible to the farmers nurtured by a lack of sustained technical assistance that would allow a more appropriate and efficient use of these products. in addition to these problems of lack of inputs and technical support, the agriculture of the four DAP zones, being a rain fed agriculture, the crop calendar is in, most cases, submitted to delays if not pure cancellation, due to the rainfall irregularities and prolonged periods of droughts. These factors exert negative bearing on the zones agricultural production. Despite these significant needs, the offer of services for institutional credit is literally inexistent. The farmers (particularly the poor and the middle class ones) are then forced to go with the high interest rate credit of the rich farmers, when available.

With their most agricultural campaign mitigated, it is found before the DAP an agriculture with very low performance with low yield that bears a very low production characterized mainly by some insignificant pounds of grains, some immature fruits and tubers particularly in the small agricultural exploitations. This offers few storage possibilities and appropriate techniques for the conservation of the harvested products,

leaves room for the traditional commercialization system that relies mainly on the demarches of intermediaries, and favors the installation of the black market, thus increasing the inaccessibility of food by the consumers. (Due to the insufficiency of the agricultural production and a lack of appropriate storage facilities and techniques, it is always observed some significant prices decreases during the harvest time and some increases during the dead periods).

In terms of the struggle against the environmental degradation, the actions undertaken by both public institutions and the NGOs operating in the domain are very limited, with no effective adoption of the soil conservation techniques and tree planting by the farmers, except in some zones were some interventions allow the achievement of a few results.

In conclusion, the agriculture, as it is before the DAP, is not warrant of the farmers' food security and generates thus few revenues to the households. This justifies the poor farmers out-migrations I search of job opportunities that may exist in some better-of zones.

2.2 Results obtained for CARE

Currently the total number of beneficiaries in the Northwest reaches nearly 4800 for the Dap Agricultural component. According to the survey, 67% of the farmers were considered as small farmers (be a total of 3220), 18%, as middle-class farmers (be a total of 850) and 15%, as better-of farmers, totaling 730. 47% of the beneficiaries are based in the commune of Bombardopolis and 53%, in the commune of Bassin Bleu.

2.2.1 Improved seeds

In order to address one of the program objectives, some improved seeds were distributed for free or on the basis of an in-kind credit to the farmers under the DAP in several regions of the Northwest. Each field agent was responsible for the distribution in his respective locality. The distributed seeds include: maize, sorghum, bean, manioc, plantain and peanut.

Based on the information provided in the table 1, 78,5% of the beneficiaries, say: 3768 farmers use improved seeds dispatched as follows among the categories: 79% for the small farmers, 80% for the middle-class farmers and 78% for the better-off ones.

Table 1- Improved Seeds Utilization by category of farmers according to CARE zones of interventions

Farmers category	Bombardopolis	Bassin Bleu	Total
Small farmers	84.7	75.2	79.1
Middle-class farmers	82.6	78.3	80.4
Big farmers	85.2	64.3	78.0
All categories	82.2	75.2	78.5

Source: Survey, Dec. 2006

The indicators on which the survey is based indicate a performance relatively positive for the utilized seeds under the DAP compared to the ones used before:

- From the point of view of their germinating capacity, only 12% of the small farmers, 10% of the middle-class farmers, and 12,5% of the big farmers, say globally 11% of all the farmers were not satisfied with the performance of the improved seeds;
- From the stand point of their growing capacity, 17% of the small farmers, 10% of the middle-class farmers, and 19% of the better-off, say an average of 16% expressed their disenchantment;
- From the stand point of their resistance to diseases, 21% of the small farmers, 18% of the middle-class farmers, and 19% of the big farmers, say nearly 20% of all the farmers expressed the fact that they are not satisfied with the results;
- From the stand point of the yield, 22% of the small farmers, 15% of the middle-class farmers, and 22% of the big farmers, say globally, 20% of all the beneficiaries were not satisfied with the seeds performance.

Furthermore, the improved seeds allowed some far better harvests compared to those provided by the other seeds. Indeed, 68% of the small farmers, 67% of the middle-class farmers and 65% of the big farmers, declared having obtained a better harvest, thanks to the use of improved seeds. Obviously, the declarations of 57% of the small farmers, 68% of the middle-class farmers and 69% of the big farmers coincide by stating that more products are sold to market. As a result, the storage level is also higher with the use of improved seeds: 61% of the small farmers, 60% of the middle-class farmers and 69% of the big farmers recognized, indeed, having reserved more products. In addition, the improved seeds are conserved better than those of the other varieties, according to 80% of the interviewees. The factor that exerts more influence on the conservation is the parasites (by 40%); it is followed by the bad storage conditions (25%) and the level of humidity (15%). As a matter of fact, 62% of the small farmers, 60% of the middle-class ones, and 73% of the big farmers would use improved seeds generated by their own harvest for the next season.

According to the farmers, the improved seeds assure better yields during the good season. However, it is the contrary when the seasons are marked by a prolonged drought periods. In most cases, the farmers keep a portion of their harvested grains as seeds for the next coming season.

Dependently on the area under exploitation, the amount of rains that fall in the regions, the amount of harvested food may cover the alimentary needs of some farmers for a period going from two to three years. Faced by the limited availability of food during a prolonged drought periods, the farmers are forced to develop their coping strategies (Table 2) such as: tree cutting (87% of the farmers), the sale of labor (92%), the sale of charcoal (95 %) or timbers (90%), as well as other activities (98%).

Table 2- Coping Strategies adopted by the farmers in difficulties following the harvest in CARE areas of interventions

Farmers Categories	Coping Strategies				
	Tree Cutting	Sale of Labor	Sale of charcoal	Sale of Lumber	Others
Small farmers	88.0	93.2	94.7	87.5	98.6
Middle-class farmers	87.5	91.7	95.2	80.0	100.0
Big farmers	100.0	100.0	93.3	100.0	100.0
All Categories	87.5	92.5	94.6	89.7	98.2

Source: Survey, Dec. 2006

2.2.2 Improved techniques

Grafting and bio-intensive gardening are practiced by the farmers as improved techniques. According to the survey results about 65%% of the farmers have done grafting. However, it seems that the process of appropriation is still going on. It is important to notify that Bombardopolis comes first regarding adoption rate (table 3). Citrus grafting is practiced by 49% of farmers, mango by 25%. Cabbage and eggplant are produced by 48% of farmers following by carrot and beet practiced by 40% of farmers.

Overwall, the BIG is practiced by 56% of farmers with a concentration at Bombardopolis (71%) and Bassin Bleu (43%).

Table 3 : Improved techniques practiced by category of farmers in areas of intervention of CARE

Category of farmers	Improved techniques					
	Grafting			Bio-intensive gardenig		
	Bombarde	Bassin Bleu	All areas together	Bombarde	Bassin Bleu	All areas together
Small farmers	78.9	51.0	62.3	75.0	42.7	56.0
Mid-class farmers	83.3	52.2	68.1	59.1	56.0	57.4
Big farmers	80.8	69.2	76.9	70.4	28.6	56.1
All categories	79.5	51.7	64.8	70.6	43.4	56.1

Source : Survey, dec. 2006

Level of success and failure

The grafting improved technique and bio-intensive garden activities have had a 60% success. Indeed, vegetables harvested from these gardens are currently used both to feed family members and to acquire other food products and basic needs articles for the family. Some BIG followers managed to capitalize their farm by acquiring from their returns chickens and goats, while others, the housewives mainly, consider the BIG like an activity that allows them to satisfy their nutritional needs. According to them, vegetables are good source of vitamins and minerals that contribute to balance the alimentary diet. However, a rather low participation has been observed due to the lack of extension and partnership with other organizations working in he same field. Then it would be appropriate, in order to reduce the 40% failure observed and to increase participation, to set in motion a motivation campaign and provide the farmers with the required means to perform this activity.

2.2.3. Soil conservation

A great number of farmers carry out soil conservation practices. According to some "notables", many of those who carry those techniques have been motivated by the benefits found by others. Soil conservation structures observed include: grass barrier strips, trash lines, stones terraces and contour ridges mainly used on Bombardopolis table-land (table 4).

According to collected information, the farmers refresh the structures before each sowing. They instate that such structures help conserving the soil "yo kenbe tè" and maintaining a certain level of soil moisture

which end up to yield increase in cultures sowed in both areas. Large surfaces with soil conservation structures are testimony of the importance of the investments made by the DAP project to valorize soil and reduce erosion effects.

Table 4: Main soil conservation practices by farmer's category according to the adopted structure in the CARE working zone

Category of farmers	Soil conservation structures					
	Hedgerows	Trash barriers	Contour billons	Rock walls	Others	All structures
Small farmers	38.2	82.8	21.5	77.4	9.1	88.1
Middle-class farmers	44.9	85.7	24.5	81.6	18.4	87.2
Big farmers	64.3	92.9	26.2	85.7	14.3	97.3
All categories	43.4	83.7	22.6	78.8	11.5	88.8

Source: Survey, Dec. 2006

The work efficiency is put out by the high levels of some key indicators as shown in table5:

- Level of respect of the contour lines varies from 98 to 100% among the three farmer categories
- Structures types established on appropriate slopes among the three farmers categories
- Well done structures found among 96% of small farmers, 95% middle and 100% in all big farmers
- The habitual 10m distance respected among 94% of small farmers, and 98% among the two other categories

Table 5: Assessment indicators of the soil conservation structures established by CARE by farmers' category

Category of farmers	Conservation structure evaluation			
	Respect of contour lines	Accurate slopes	Structures well done	Respect of normal distance between structures
Small farmers	99.4	100.0	97.5	94.4
Middle-class farmers	97.7	100.0	95.3	97.7
Big farmers	100.0	100.0	100.0	97.5
All categories	99.2	100.0	97.6	95.6

Source: Survey, Dec. 2006

Following the establishment of the structures, substantial yield improvements were observed in various crops according to some beneficiaries. Very little of them are not satisfied with the reached performances. Independently from the category, farmers' satisfaction levels go from good to very good. All categories taken together, about 75% of the questioned beneficiaries' rate from "good to very good" yield level of products like: corn, bean, plantain or sorghum. Some of them rate as excellent the yield for certain crops (9% for corn and 10% for plantain. In addition to production improvements, soil conservation structures make a lot of good to the environment. That can be seen particularly through their contribution to soil

retention. More than 80% of the questioned farmers assess that contribution on a "good" to "excellent" scale.

For this activity, the assistance provided to the beneficiaries is mainly concerned with technical and formation aspects (table 6). For all farmers' categories taken together, technical support alone represents 59% of the assistance. Then comes the formation received by the beneficiaries, which covers about 36% of the assistance. However, it must be said that the technical support is more concentrated in areas closed to Bombardoplolis (56%) than in areas near Bassin Bleu (44%), but this is the other way around when it comes to formation support in both areas (respectively 18 and 82% for Bombardopolis and Bassin Bleu).

Table 6: Types of support received from DAP by the farmer in realizing the conservation structures in the CARE working zone

Nature of support	Supports received from DAP for structure establishment		
	Bombarde	Bassin Bleu	All areas together
Technical	80.5	44.4	59.3
Financial	1.2	0.9	1.0
Training	15.9	49.6	35.7
Others	2.4	5.1	4.0

Source: Survey, Dec. 2006

There are a few constraints to the development watershed management. They are mainly: i) the lack of technical en socio-economical assessment of the established system; ii) the absence of technical references and manuals specific to the North-West; iii) the persistency of cared people reflex shown by the farmers due to the participative approach limits and absence of a partnership based approach.

Level of success and failure

The soil conservation activity has shown a 80% of success explainable by several reasons including beneficiaries 'participation rate (89%). Indeed, the beneficiaries have received all the technical support needed to comply with almost all the soil conservation principles. Yield from various crops are good testimony of that level of success. In addition, the effects of those practices on soil retention are rather obvious. The 20% failure observed can be attributed to the absence of protection structures of the watersheds at the top of the mountains in order to prevent gorge formation downhill. Such a situation is noticed in Creve (Bombardopolis). On the other hand, the trash barriers are not accurate in this specific situation since there is no technical referential for the region. Last, the absence of coordination or partnership with neither public institutions nor the NGO's involved in that type of activity has contributed to limit the positive impacts of the interventions and their reproducibility in the future .

2.2.4 Seedlings production and reforestation

In this activity, lot of beneficiaries currently transplant trees in their gardens due to sustained motivation from the technicians. The seedlings are grown in the project or in individual nurseries. According to the people, the area was once a desert, but DAP-Agriculture has changed it to a reforested zone through the distribution of trees like: leucena (*Leucaena leucocephala*), capable (*Schaefferia frutescens*), frêne (*Simaruba glauca*), mahogany (*Swietenia mahogany*), cedar (*Cedrela odorata*), neem (*Azadiracta indica*), eucalyptus (*Eucalyptus sp.*), casuarinas (*Casuarina equisetifolia*). These species seedlings are supplied by CARE. Some farmers grow their seedlings in their own nurseries after formation received either from CARE technicians or field agents of the given area.

According to our observations and survey, the farmers seem to understand better and better the importance of reforestation. With regard to land tenure, the owners are those who manage the best the ligneous resources. They grow trees in order to harvest them later on. When mature, the tree is either sold or used as timber, or to produce coal. For the farmers, the tree is like a saving account to compensate low yield or production loss in crops.

Among the farmer surveyed in the North-West, 55% have participated in seedlings production and reforestation. Category does not matter when it comes to that activity. Indeed, 55% of small farmer, 49% of middle and 58% of big farmers have taken part to that activity. Bombardopolis (54%) seems to be slightly more active than Bassin Bleu (46%).

Almost all the seedlings are produced (97%) to be transplanted. Those coming from individual nurseries are directly transplanted on the owner land and the remaining is planted in other farmers' plantation. However, the plants do not received the necessary care, like watering, to increase success rate. They usually expect for rain before transplanting. When the rainy season is delayed, or disrupted; success rate is rather low

The most current species include: oak, cedar, mahogany, mango (*Mangifera indica*), avocado (*Persea americana*), citrus (*Citrus sp.*), saman (*saman*), ash (*Simaruba glauca*). In general about 56% will be used to produce plank and 12% for charcoal, for the middle farmers by instance 60% will go to plank and 25% to charcoal production. When it comes to the continuation of seedlings production, 66% of the small and 78% of the middle farmers think they are able to maintain production without the project, for only 50% of the big farmers. On the other hand, almost all the farmers surveyed affirm that seedling production and reforestation will continue beyond the project.

Level of success and failure

The level of success of the activity "seedlings production" can be rated 75%. Besides, the objective has been reached beyond expectation as to the number of beneficiaries (1600 farmers) since the 55% which had positively granted their participation make by a projection over the whole population a total of 2640 beneficiaries. However, the 25% failure may be explained by lack or the low weigh of fruit species among the supplied seedlings, the absence of follow up of the transplanted seedlings resulting in poor shooting, and the absence of incentive related to this activity. Several interviewed farmers wish to be supplied with as many fruit as forest species.

2.2.5. Credit to the production

The only credit conceded to the farmers is on seeds. In several planting campaign, one or two "marmites" of seeds have been allocated to farmers so they can make the sowing. Indeed, more often, the lack of money prevents the farmers to sow on time. Seeds credit given in nature, allows them to face that constraint. The seeds rented include: corn, beans, etc. (table 7).

Table 7: Percent of farmers by category to which seed credit has been granted for various crops in CARE working area

Category of farmers	Crops for which credit for production was received				
	Beans	Congo bean	Peanut	Maize	Others
Small farmers	65.9	5.9	9.4	64.8	48.5
Middle-class farmers	72.2	14.3	14.3	68.0	50.0

Big farmers	74.1	42.9	42.9	81.8	63.6
All categories	67.0	13.0	13.7	67.1	50.5

Source: Survey, Dec. 2006

It should be noted that in the Bassin Bleu area, only farmers who have a good harvest must return the seeds. In Bombardopolis, the seeds are supplied as donation.

The farmers are readily interested to obtain seeds from the project since they are short cycle and more resistant to pests in comparison with their local seeds.

Level of success and failure

Credit supply allows at 85% of the farmer to increase their production. In spite of high participation rate, the level of success of this activity does not exceed 50% because of the lack of diversity of the seeds supplied (corn and beans). The 50% failure may be explained by the absence of coordination with local credit institutions, organizational weakness and the beneficiaries' mentality of cared people. Farmers lose also their harvest because of dryness observed during certain period and delay observed in seeds delivery.

2.2.7. Conservation and transformation of agricultural products

This aspect of the project is not well known to the people. The number of women beneficiaries of this activity is rather low. The women transform and condition fruits. They manufacture fruits and other products into jelly, jam, floor, pomade, bred and obtain some additional income from that activity.

Products involved include: corn, beans, ginger, fruits and peanut in really low percent of production. A relative majority of people (25% small farmers and 50% middle farmers) estimate that losses reduction is the main benefit of this activity. For other, a better conservation (12% small farmers, 50% big farmers) and a granted market (12% small and 33% big farmers) are favorable factors for this activity (table 8). It seems to be of interest for the farmers, since 88% of the small and all the middle and big farmers wish to keep up with this activity.

Table 8: Conservation and transformation of agricultural products by farmer's category in CARE working area

Category of farmers	Stocked and/or transformed crops				
	Maize	Bean	Fruits	Peanut	Others
Small farmers	4.2	4.7	1.7	1.7	2.7
Middle-class farmers	4.3	5.0	-	9.5	-
Big farmers	12.5	10.0	-	10.0	4.8
All categories	5.6	5.4	1.0	4.7	2.4

Source: Survey, Dec. 2006

Level of success and failure

The conservation and transformation activity is identical to the commercialization one, since they both present a similar profile: granted market, willingness to keep up, but low participation rate. Success level may be estimated at 20% in regard with the loss reduction brought by this activity. It brings also an

additional income to the family. To increase participation rat in this activity, it would be appropriate to invest in the creation of infrastructures in order to welcome more beneficiaries. In the mean time, it would be judicious to provide formation on the topic of fruits conservation and transformation and to sensitize farmers on necessity to create add on value for their products.

Animal husbandry and selling

This activity is practiced mainly in Bassin Bleu where chickens were distributed. The rearing is practiced by 25% of small farmers and respectively 23 and 13% of middle and big farmers. According to the beneficiaries, the chickens were too young at supply, which result in a high mortality rate. Because of that, numerous people have not been able to take advantage of this activity. However, those who were fortunate enough have managed to capitalize through buying some goats. On the other hand, goats' distribution in the Bassin Bleu area has just begun. In Bombardopolis area, male goats are mainly distributed to some groups, although some members did not receive their cross-breeding yet.
A synthesis of the activities listed is presented in Table 9.

Level of success and failure

The rate of success for this activity may be estimated to 50% because of economical benefit to farmers. The 50% failure may be explained by the high rate of mortality of the provided chickens and the limited number of participants.

Table 9: Synthesis of the strength and weakness of the different Care activity branches

Activities	Strengths	Constrains
Seed distribution	-Availability of seed for farmers during critical financial period -short cultural cycle	-small quantity of seed distributed -late distribution -some seed not appropriate -drought (climatic conditions) -pests et ravagers
Soil conservation	-yields increase for different crops -to reduce erosion	-lack of human resource for labor -lack of financial availability -lack of technical human resources
Commercialization & marketing	- Production of additional income	-lack of training -no loan -small number of beneficiaries -difficult transportation -lack of capacities for financial management
Animal Husbandry	-one of the economic potentials of	-small quantity of distributed animals

	the region	- chicken distributed immature -sicknesses -lack of veterinary agents -lack of drugs & vaccines
Roads	Allow product commercialization	Ameliorate roads are too small
Plant production & reforestation	-Availability of plants for transplantation -charcoal production	-no distribution of fruit plants -lack of -Lack of care after transplantation -lack follow up of distributed plants
Transformation & stockage	-to valorize local production	-High transportation cost -seasonal harvest

2.3. Results for CRS

The DAP/Agriculture has introduced bean seeds to the benefit of farmers from three parishes. Habitually, the seeds used come from farmers reserve without any treatment. The crafted seeds present some improvement since they were screened, dried and treated with fungicide and insecticide before stocking. The distribution of the beneficiaries by parish is presented in table 10.

Table 10: Distribution of the beneficiaries for improved seeds utilization in percent in CRS working area

Categories of farmers	Coteaux	Les Anglais	Roche à Bateau	Total
Small farmers	62.5	100.0	28.6	73.8
Middle-class farmers	100.0	100.0	50.0	87.5
Big farmers	66.7	-	100.0	80.0
All categories	62.5	96.2	65.2	74.1

Source: Survey, Dec. 2006

Not all the beneficiaries of the program have been able to participate at all the activities designed in the DAP. It seems that at Les Anglais, an important agricultural region, seeds supply has been prioritized mainly for small and middle size farmer. Anyway, the majority of the target group, 1110 farmers, participated at that activity. Assessing the efficacy of the improved seed distribution operation requires finding a way to measure its performance. During the survey, questions have been asked to the farmers on various stages of beans cultivation with improved seeds, including diseases resistance and post harvest issues. For more than 94% of the farmers, seed germination was satisfying.

More precisely, for 31.5% of small farmers and respectively 85.7 and 80% of middle and big farmers, emergence was rated from very good to excellent. The same trend was observed for the growth parameters. More specifically, for 60% of the big and 85% of he middle farmers, growth was very good. As to disease resistance, farmers from Les Anglais are more satisfied than those from other parishes which still found this character satisfying in plants from the improved seeds. For 19% of the small farmers versus 71 and 60% respectively for middle and big farmers, disease resistance was very good.

In contrast, the great majority of the farmers were not satisfied of the yield except for the middle farmers from Coteaux and Les Anglais. Grain formation and filling are very sensitive stages in beans life cycle. A short period of dryness may affect considerably yield. In most cases (76.3%), yield from improved seeds plants was found lower than that from local seeds, except for middle farmers of the three parishes for which, in about 67% cases, yield from improved seeds plants was higher. Likewise, sales from improved

seed plants were not higher than those from traditional seeds, except with the middle farmers for which, in 71% of the cases, sales were better with the improved seeds. These data are consistent with those related to the quantity of harvested products, even tough the trend for the sales is not following the one for the harvest. As to the stocks, the observations are similar. Stock from improved seed plants harvested were not higher than those from local seeds, only the middle farmers, in 50% of the cases, reported having stoked more products. Post harvest conservation of grains from improved seed plants was reported to be worse than for grain from local seed plants.

However, the majority of the farmers from all categories (up to 71% for the middle farmers) replant the grains from improved seeds plants. Beans stocks from improved seeds plants do not last longer than those from local seeds; except in Les Anglais where the middle farmers, in 100% of the cases, state the opposite. Farmers who could not manage to sell more products have to find various survival strategies (table 11).

Table 11: Survival strategies chosen by farmers facing hard time with regard to the harvest in CRS working area

Category of farmers	Coping strategies				
	Tree cutting	Sale of labor day	Charcoal sale	Sale of lumber	Others
Small farmers	100.0	100.0	100.0	100.0	100.0
Middle-class farmers	-	-	-	-	100.0
Big farmers	100.0	100.0	100.0	100.0	100.0
All categories	100.0	100.0	100.0	100.0	100.0

Source: Survey, Dec. 2006

The distribution should be done at the beginning of February or July, considered as planting period for beans in the region. According to collected information, a bean sowing has been done in April, due to late arrival of the seeds. In addition, farmers from middle and low altitude explained that they are mainly concerned with seeds for other species like peanut, sorghum and corn that are their main crops. On the other hand, the amount of seeds supplied was found too low with regard to the target group. For plantain suckers, only varieties well adapted to irrigated and fertile low land were supplied. That has considerably affected performance in mountain.

Level of success and failure

The level of success of the improved seeds distribution is 20% explainable by the high rate of participation (74%), the high rate of germination the seeds, growth and disease resistance. The 80% failure is due to late distribution of the seeds, low yield level obtained with regard to local seed plants, and absence of coordination and partnership with public institutions and other operators working in the same field. On the other hand, sustainability and reproducibility of this operation are not granted without the project support since no formation has been made on this thematic for the beneficiaries and no materials have been provided to the target community.

2.3.2. Improved techniques

Not all the beneficiaries systematically participate to all the activities. Only 25% of the target populations take part to fruit trees grafting with a lower representation in the region of Roche-à-Bateau (table 12). The activities of bio-intensive gardens were not implemented in the CRS working area. However, some vegetables gardens from the farmers' initiative have been observed in the field.

Table 12: Improved techniques practiced by farmers category at CRS working zone

Category of farmers	Grafting			
	Coteaux	Les Anglais	Roche à Bateau	All areas confounded
Small farmers	20.0	38.9	28.6	30.0
Middle-class farmers	75.0	-	-	37.5
Big farmers	33.3	100.0	-	33.3
All categories	29.0	32.0	13.0	25.3

Source: Survey, Dec. 2006

Level of success and failure

This activity has a 40% success rate. In spite of the weak participation of the farmers, the practice of grafting, by making available varieties of great economical value, may improve farmers' income and by this means, keep them from cutting trees. However, the formation sessions were too short and the farmers need real technical support in this field. In addition, the establishment of bio-intensive gardens is not programmed and the development of a partnership with other operators is of great necessity.

2.3.3. Soil conservation

The majority of the farmers (about 70%) apply, with the support of the program, some soil conservation practices with growing interest from small to big farmers which reach 100% of the target population in their category (table 13).

Table 13: Main conservation practices by farmers category according to the structure chosen in the CRS working area

Category of farmers	Soil conservation structures					
	Hedgerows	Trash barriers	Contour billons	Rock walls	Others	All structures
Small farmers	54.8	50.0	57.1	47.6	2.4	68.3
Middle-class farmers	37.5	37.5	50.0	25.0	-	87.5
Big farmers	50.0	16.7	50.0	50.0	-	100.0
All categories	47.0	43.4	49.4	47.0	1.2	69.1

Source: Survey, Dec. 2006

The majority of the farmers build mainly grass barrier strips, trash lines, contour ridges and stones terraces (table 14). During the survey, a technical assessment has been realized according to 4 structures types mentioned. For the majority of the farmers (between 84 and 98%), the structures were established in a technically correct manner.

Table 14: Assessment indicators for the soil conservation structures erected by farmer's category in the CRS working area

Category of farmers	Conservation structure evaluation			
	Respect of contour lines	Appropriate slopes	Structures well done	Respect of normal distance between structures
Small farmers	92.9	96.4	92.9	89.3
Middle-class farmers	100.0	100.0	100.0	71.4

Big farmers	100.0	100.0	100.0	66.7
All categories	96.4	98.2	96.4	83.9

Source: Survey, Dec. 2006

The structures impact on yield was found satisfying. For all the crops observed, yield has been rated in almost 90% of the cases from satisfying to very good. The differences between categories are not very significant, although the level of dissatisfaction is higher in big farmers. For 97% of the farmers, the structures effects on soil retention are obvious with no real preference for one particular type. The DAP has provided several types of support to the farmers in implementing the management structures. However, according to the majority of them (76%), received support was only technical.

Table 15: Nature of the support received from the DAP by farmers in the realization of conservation structures in the CRS Working area

Nature of support	Supports received from DAP for structure establishment			
	Coteaux	Les Anglais	Roche à Bateau	All areas together
Technical	70.6	82.4	76.5	76.5
Financial	5.9	-	5.9	3.9
Training	-	11.8	5.9	5.9
Others	23.5	5.9	11.8	13.7

Source: Survey, Dec. 2006

Level of success and failure

The performance level (75%) of soil conservation activities, which appears to be the one that has the highest level of success, is explained by the high adoption rate (70%), the application of construction technical norms, the response brought to the population real needs of the areas of intervention, and job creation particularly in the of ravine correction. The failure rate of 25% is explained by the limited scope of conservation actions as compared to the extent of soil degradation de construction problems in the region, the non utilization of the watershed approach when placing the structures and the absence of a strong partnership between the state institutions and the NGO in order to insure the durability of the interventions.

2.2.3 Small plant production and reforestation

Around 81% of all farmers participate in this activity without any significant difference between counties. Farmers received technical assistance from the program and all of them (100%) vouch being able, from now on, to reproduce the small plants without the DAP aid. The species sowed are: cedar, ash-tree, oak, leucena, mahogany, cassia, different citrus species and mango. Around 32% of those farmers plan to make boards with those planted trees.

Success and failure level

The high adoption rate of this section (81%) and the evident disposition of all farmers categories to go with the activities without the DAP contribution (reproducibility and sustainability) explain the success level of 80%. The 20% failure level is the result of the limited recovery of the transplanted small plants, the plantation lack of follow up and the non utilization of the watershed approach. Nonetheless, it is too early to precisely know this activity ultimate non success level by measuring the small plants survival rate and the economic advantages for farmers. However, the weak partnership bond might limit this activity success.

2.2.4 Production loan

CRS did not actually implement any micro credit activity. However, the seeds distribution activities by using a seed loan strategy to farmers who have to give back the seeds such as to reconstitute the stock which will be available to farmers for future agricultural campaigns and even others. The concerned species are kidney bean (seeds) and plantain (suckers). The majority of farmers took part in this activity. Nevertheless, only 23% of farmers think that the production loan helped them increase their agricultural production (table 16).

Table 16: Percentage of farmers by category who benefited the credit to production for the various crops in CRS areas of interventions

Category of farmers	Crops for which credit for production was received	
	Bean	Plantain
Small farmers	100.0	100.0
Middle-class farmers	100.0	-
Big farmers	100.0	-
All categories	100.0	100.0

Source: Survey, Dec. 2006

2.2.5 Commercialization of agricultural products

All surveyed farmers state that they have not participated in any agricultural product commercialization activity.

2.2.6 Agricultural product storage and transformation

This activity was not done in the area where CRS is engaged.

2.2.7 Animal Husbandry and livestock sale

Stock breeding is quite an important activity in CRS intervention areass since 63% of farmers do that. Chickens and pigs were distributed to farmers against payment, in order to allow them to increase both their income and animal protein availability for their family.

Many farmers think that, as well as for the seeds, the quantity of animals distributed was too small. Some farmers affirm having given the contribution of “400 gourdes”, but they have not received the pigs after several months. Others mention the favoritism of group leaders who unfairly distribute the seeds and the animals to their relatives. That practice creates some tension within the groups.

Information given by beneficiaries allowed the identification of some problems during the execution of this activity:

- Caution measures were not taken during chickens distribution when considering the death rate at delivery;
- Unavailability of veterinarian care in remote zones;
- The stated preference for goat and sheep over pigs, particularly in the mountains where farmers affirm that pigs are more demanding as far as feed and health care are concerned.

However, since the DAP activities started more recently in Les Anglais county, more goats were distributed on farmers demand.

Animal distribution and sale success rate

This activity success may be estimated at 40%. This activity allows an increase in farmers income and the availability of animal protein for their family members. The 60% of non success level finds its meaning in the small number of chickens and pigs distributed, the existing uneasiness within the groups because of the estimated unfair distribution of animals, the chicken high death rate during delivery, the poor accessibility of veterinarian care and the farmer's preference for animal species other than those distributed.

Table 17 presents a synthesis of different activities along with their strengths and constrains.

Table 17– Synthesis of strengths and constrains of CRS sphere of activities

Activities	Strengths	Constrains
Seed Distribution	-In time of financial difficulties, farmers can still find their seeds	- -delay in distribution -Plantain seed not suitable to dry areas -drought (climatic conditions) -
Soil conservation	-rise in crop yields -reduction of erosion and damages	-require additional labor resource -Lack of financial mean
Animal husbandry	-one of the region economic opportunities	-small number of distributed animals -lack of veterinarian agents No drugs, no vaccines
Reforestation and small plant production	-Availability of tree for sale -Charcoal making	-Lack of nurseries -lack of care after transplantation -lack of follow up on the distributed small plants

2.3 Results obtained for WORLD VISION

2.3.1 Improved seeds

According to the survey results, the rate of improved seeds utilization by the Program beneficiaries in the WV intervention zones is very high in all farmers' categories (table 18). Farmers (100%) of all three categories use improved seeds at La Gonâve. In the Central Plateau, a small difference between small and large holders was observed which makes it between 97 and 99%. Considering the sample of investigated farmers, it is obvious that a large majority of the program beneficiaries (99%) use improved seeds which show better germination and growth rates, good disease resistance and better yields.

Table 18- Improved Seeds Utilization by category of farmers according to World Vision zones of interventions

Category of farmers	La Gonâve	Plateau Central	Total
Small farmers	100.0	98.4	98.6

Middle-class farmers	100.0	100.0	100.0
Big farmers	100.0	97.3	97.8
All categories	100.0	98.0	98.3

Source: Survey, Dec. 2006

Harvests resulting from the improved seeds are by far higher than those produced by the traditional seeds. The results speak for themselves. 91.4 % of the small farmers affirm that harvests were better with the improved seeds, 93.3% in the average farmers and 97.7% at the large ones. The improvement of the quantities of products collected implies that the quantities of market products increase in all the categories. It is the case for approximately 92.0% of the small farmers, 92.9 % of the average farmers and 97.7% of large ones. The same scenario was observed both for the sale and the storage.

All categories combined, the traditional seeds commonly called seeds are preserved better than the improved seeds (approximately 95% of surveyed confirm it). For the small farmers it is the parasites up to 25 % and bad conditions of storage also up to 25 % which are the cause. In the average farmers, the causes are not defined, whereas 100% of the large farmers show the bad conditions of storage.

Level of success and failure

According to estimations, the shutter of support to the recipients of Program DAP with improved seeds succeeded up to 75% because of the adopted strategy, durability assured the intervention and the additional incomes brought to the surveyed planters, all categories combined. However, it should be announced that the shutter of distribution of improved seeds to the recipients of the DAP has points of weakness which reveals a level of failure of approximately 25%. The fundamental causes of this rate of failure are explained by the late arrival of the seeds, the insufficient quantities distributed for sowing their parcels, the number of recipients who deserve to be increased compared to the population of the served communities and the non availability of the inputs like fertilizers and pesticides, etc.

In terms of strategies of survival, the small farmers practice primarily the cut of trees, the sale of working days and the sale of wood planks. The average and large farm practice only these two last strategies (table 19).

Table 19- Strategies of survival adopted by the farmers in difficulty compared to harvest in the surface of intervention of World vision

Category of farmers	Coping strategies				
	Tree cutting	Sale of labor day	Charcoal sale	Sale of lumber	Others
Small farmers	100.0	100.0	100.0	100.0	100.0
Middle-class farmers	-	-	100.0	-	100.0
Big farmers	-	-	100.0	100.0	-
All categories	100.0	100.0	100.0	100.0	100.0

Source: Survey, Dec. 2006

2. 4. 5. Improved techniques

According to the results of the investigation, the practice of the bio-intensives gardens is not too widespread in the zones of intervention of World Vision. Only 20.7% of the small farmers, 27.0% and 25.6% of the large farmers have vegetable gardens (table 20). They are small pieces of land close to the court of the house where vegetables are cultivated in an intensive way.

Table 20- improved Techniques practiced by category of farmers according to the zone of intervention of World Vision

Category of farmers	Improved techniques					
	Grafting			Bio-intensive gardening		
	La Gonâve	Plateau Central	All zones	La Gonâve	Plateau Central	All zones
Small farmers	47.4	71.3	67.9	26.3	19.8	20.7
Middle-class farmers	27.3	56.7	48.8	22.2	28.6	27.0
Big farmers	14.3	47.1	41.5	12.5	29.0	25.6
All categories together	35.1	62.7	58.1	22.2	22.1	22.1

Source: Survey, Dec. 2006

For these husbandries, some farmers use the compost and the natural methods to fight against the parasites. Between 82 and 89 % of the recipients who practice the activities of bio-intensives gardens receive the support of CS.

Level of success and failure

The practice of the techniques improved like the grafting and the bio-intensives gardens shows a rather high rate of success. This one is 80% bus those which practice them very well assimilated the techniques and adapted the principles relating to it. They continue to maintain the cultures and reproduce the activities with or without the assistance of the Program: it is a proof of durability. These gardens allow the farmers who practice them to produce vegetables for subsistence farming in order to improve quality of their food. The investigations revealed that a certain part of harvests are sold at the market and generate incomes to the owners.

2. 4. 6. Soil Conservation

The results of the investigations show that 83 % of the recipients of the program practice the conservation of the grounds. Those which do not practice the structures of conservation of ground state that they are unaware of them or are quite simply reticent. It will be noted however that this strong rate of total participation of the recipients in the activities of conservation of the grounds unequally set out again between the 2 zones of intervention of World Vision. Indeed if in the "Haut Plateau Central" the rate of acceptance of the practices of conservation of ground by the recipients of program DAP is 90.2 %, it is only 37.9% in "La Gonâve" (table 21).

Table 21- Principal soil conservation practices by category of farmers according to the structure adopted on the level of the zones of intervention of World Vision

Category of farmers	Structure de conservation des sols					
	Hedgerows	Trash barriers	Contour billon	Rock walls	Others	All structures
Small farmers	47.6	74.7	8.2	52.4	6.1	85.7

Middle-class farmers	54.3	54.3	8.7	56.5	4.3	78.9
Big farmers	45.7	65.2	15.2	67.4	13.0	78.4
All categories together	47.2	68.6	9.3	55.7	6.9	83.0

Source: Survey, Dec. 2006

According to results' presented at table 22, the structures are generally well built (90.4%) with the technical aid of CS because the investigations revealed that the level lines are respected (87.9%) and suitable slopes (76.5%).

Table 22- Indicators of evaluation of the structures of conservation built by World by category of farmers

Category of farmers	Conservation structures evaluation			
	Respect of contour lines	Appropriate slopes	Structures well done	Respect of normal distance between structures
Small farmers	88.3	78.3	93.2	80.0
Middle-class farmers	76.2	61.9	76.2	57.1
Big farmers	94.1	81.8	93.9	84.8
All categories	87.9	76.5	90.4	77.4

Source: Survey, Dec. 2006

The outputs of the cultures increased with the protection of the grounds and thus the set up structures contribute indeed to the retention of the ground. The majority of the recipients declare themselves ready to ensure the maintenance of the structures along with other farming activities, the quickset hedges in particular produce fodder for the cattle. The nature of the received supports of the DAP is provided to table 23.

Table 23- Nature of the received supports of the DAP by the farmers in the realization of the structures on the level of the zones of intervention of World Vision

Nature of support	Supports received from DAP for structure establishment		
	La Gonâve	Plateau Central	All areas
Technical	43.8	21.5	23.8
Financial	-	-	-
Training	56.3	27.1	30.0
Others	-	51.4	46.3

Source: Survey, Dec. 2006

Level of success and failure

We consider according to the results of the investigation and the observations made on the ground that this activity has a rate of success of approximately 80%. This success is explained by the will of the growers to protect their ground against erosion. They adhere to the principles and adapt the practices of conservation of ground preached within the framework of the Program. These structures are maintained by themselves with the motivation of the executives attached to the Program, from where the durability of this activity.

By the contribution of this activity to the retention of the ground and water and consequently by his influence on the increase in harvests, one can also say that it contributes largely to the increase in the incomes of the recipients who practice it. The rate of failure of 20% is explained by the absence of a partnership with other sectors working in the field and of incentive economic related to this activity.

2. 4. 7. Production of seedlings and reforestation

Great majority of surveyed (82.7%) take part in the activities of production of seedlings within the framework of the program. The trees are produced in seedbed by groupings of growers to be then distributed and transplanted to 99.5% in the gardens of the recipients. The farmers profit from the support of World Vision and declare that they are ready to continue the experiment, to produce and transplant trees, after the program. The principal species met are: the cedar and the oak, mahogany tree, acacia, citrus, mango tree. One will note that inquired which does not plant trees explain, in majority, which they do not have the economic means for this activity.

The majority of the recipients of DAP / World Vision take part in the activities of production and / or transplantation of fruit trees or forest. Generally the profit groupings set up collective seedbeds with the technical support of monitors placed at their disposal by World Vision and the active participation of the members. The produced seedlings will be then transplanted in their gardens, generally near their houses. The reasons for which certain recipients do not practice this activity remain the fact that for them the reforestation remains the business of the state and that they do not find it beneficial to plant trees without them not being paid. Good numbers of them always tend to believe that the trees are investments with differed profitability and that they do not find it beneficial to undertake this activity.

Level of success and failure

Just as the conservation of ground, it is estimated that this activity succeeded with nearly 80% for the same reasons that the trees are regarded as agents anti erosion and who at the same time will be used for the production of fruits, boards, wood for heating, etc. The level of failure of 20% comes from the mentality of certain recipients and weak rate of resumption of the transplanted seedlings.

2. 4. 8. Credit for production

The credit for production is given especially for cultures like bean, it but, banana and the manioc. In the category of the small farmers, 83.7 % of surveyed profit from the credit to the production from bean and 96.9 % with the production of corn, 96.2% for banana and 95.1% for the manioc. For the average growers, between 91 and 100 % profit from the credit to the production of the above mentioned cultures and for the large ones, 100% for all the cultures (table 24). This support in general enables them to increase their production. All in all, the program enables them to produce more, to better preserve, store and sell their products under better conditions.

Table 24- Percentage of farmers per category profiting from the credit to the production for the various cultures in the zones of intervention from World Vision

Category of farmers	Crops for which credit for production was received				
	Bean	Plantain	Manioc	Maize	Others
Small farmers	83.7	96.2	95.1	96.9	97.4
Middle-class farmers	91.7	96.6	100.0	100.0	96.2
Big farmers	100.0	100.0	100.0	100.0	95.2

All categories	86.8	96.5	96.2	97.7	96.0

Source: Survey, Dec. 2006

The credit with the production relates to especially the activities of improved seeds where the recipient receives from it a certain quantity (bean and corn) which it must restore with harvest with a minimum of interest as announced by introducing the activity of the seeds itself. This activity, according to the results of the investigations makes it possible to increase the production. The rate of success is lower than that of the improved seeds themselves because it should be said that the seed in oneself helps the recipients to increase their income. It is not obvious that they always refund generally affirming a bad harvest. However, an activity of agricultural credit known as is successful when the rate of refunding makes it possible to reconstitute stocks for the renewal of the cycle, but it often happens that the capital (nature) decreases considerably after 2 or 3 cycles to cancel itself afterwards.

Level of success and failure

The rate of success of this activity reaches 45% because of the low level of refunding of the loans. The failure can also be allotted to the mentality of assisted people because of the limits of the participative approach and absence of a partnership step.

2. 4. 9. Storage and transformation of agricultural products

Storage and the transformation are done particularly for the grains such as corn, bean and groundnut. The small farmers practice them more than the means and large farmers. With an average rate of 45%, the corn comes at the head, follow-up of bean and other cultures (table 25). The limitations with the performance of this type of activity lie in the lack of infrastructures of storage and transformation. Important measurements deserve to be planned to improve the conservation of the grains which remains which remains a major asset for the producers.

Table 25- Storage and transformation of the cultures by category of farmers in the surface of intervention of World Vision

Category of farmers	Stocked and/or transformed crops			
	Maize	Bean	Peanut	Others
Small farmers	58.0	44.9	26.3	46.4
Middle-class farmers	36.4	30.0	6.7	24.3
Big farmers	13.3	2.5	4.9	-
All categories	45.6	33.0	16.3	34.4

Source: Survey, Dec. 2006

2. 4. 10. Breeding and sale of animals

The recipients of DAP-World Vision have the practice of the traditional breeding. However, within the framework of the program, an attempt at introduction of improved parents (chickens and goats) is at its beginnings in all the communes and all the categories of farmers take part of it. Table 26 has the synthesis of the assets and constraints by activity for World Vision.

Table 26: Synthesis of strengths and constrains of World Vision sphere of activities

Activities	Strengths	Constrains
Seed distribution	-Availability to beneficiaries farmers of seeds with the highest performance	-Insufficiency of the quantity of distributed seeds -distribution delay -drought (climatic conditions) -pests and spoilers, - lack of follow up.
Soil conservation	-rise in crop yield -contending erosion	-lack of labor -lack of financial means -lack of technicians - lack of follow up
Commercialization & marketing	- generation of complementary income	-lack of training -No credit -Low number of beneficiaries -difficulty of transport -Deficiency in fund management capability
Animal raising	-One of the region economic potentials	-Low number of distributed animals - Distributed chickens not mature -Diseases (bugs, diarrhea) -Lack of veterinarian agents -No drugs nor vaccines
Roads	Allow commodities transport and sale	Improved sections are too short and do not last long.
Small plant production and reforestation	-availability of trees for sale -charcoal production	-lack of care after transplantation -lack of follow up on the distributed small plants
Transformation and storage	-valorization of local production	-high cost of transport -seasonal crop harvest

2.4 Results achieved by SAVE THE CHILDREN

2.4.1 Improved seeds

Over 115 recipients surveyed, (or 90.3 %) have 100 used improved seeds. However, the utilization rate changes with different categories of farmers. The results are summarized in table 27.

Table 27- Utilization of improved seeds by farmers category in Save the Children areas of interventions

Category of farmers	Maïs-sade	Mar-chand	Mire-balais	Pte Riv. Artib.	Verrettes	Total
Small farmers	90.9	88.5	76.9	100.0	100.0	90.7
Middle-class farmers	100.0	100.0	100.0	100.0	100.0	100.0
Big farmers	100.0	100.0	75.0	-	100.0	85.7
All categories	93.8	89.7	75.0	100.0	100.0	90.3

Source: Survey, Dec. 2006

90.7 % of small farmers have panted improved seed. It should be noted that the rate goes up to 100 % in the communes of Petite rivière and Verrettes, followed by Maissade (90.9 %), Marchand (88.5 %) and Mirebalais (76,9 %).

Improved are also used by all farmers surveyed in the interne diate category and in all communes, against 85,7 % in the big farmers category. So, 14,3 % farmers this group do not use improved seeds, all of there are living in the commune of Mirebalais (the DAP Program improved seeds are not used by 25 % of big farmers on this commune. There are no big farmers in Petite Rivière.

Taking the sample of surveyed farmers into account, it is obvious that most of the recipients (87 %) have used improves seeds. Nonetheless it is important to consider farmers satisfaction level (through germination, rate, growth, rate resistance to diseases and productivity) to gauge the pertinence of the program.

Between 25 and 33 % of the recipients surveyed, all categories includes, consider that the yields resulted form improved seeds are lower than those provided by traditional seeds. The highest rate of these recipients (45 %) is found in the small farmer's category in the commune of Marchand. On the opposite, the commune of Mirebalais has shorn the highest rate which is 66 % in the intermediate farmers category.

For most recipients (between 62 and 68 %) better yields are performed with the improved seeds. Il should be note that the rate is maximum (100) for intermediate and big farmers in Maissade, Marchand, and Verettes. Mirebalais is therefore the place where the satisfaction level is very low for the improved seeds.

The amount of food available on the marker increases a result of yield improvement this is shown for 56 % and 67 % of the people surveyed except obviously for Marchand (small farmers) and Mirebalais (intermediate and big farmers). The same scenario is repeated in terras of sale and preservation. For all categories included, foodstuffs resulted from the traditional seeds are better preserved than those doming from the improved seeds (80 to 86 %). Only small farmers of the 3 communities (Maissade, Marchand and Petite Rivière) have proposed some explanations for this. Forty three percent (43 %) of them believe

that humidity in responsible for preservations result, while 57 % attribute the latter to bad stocking conditions.

Between 67 and 78 % of the people surveyed, all categories and communities included, use improved seeds coming from their own stocks. This is different for 45 % of small farmers in Marchand and 66 % of big farmers in Mirebalais due to their perception of a low satisfaction level for stocks resulted from the improved seeds.

Tree cutting (100 %), day work sale (100 %) charcoal or wood board sale (100 %) are some survival strategies adopted by small and intermediate farmers in save the children's intervention areas (table 28).

Table 28- Coping strategies adopted by farmers in intervention areas of e SAVE

Category of farmers	Coping strategies				
	Tree cutting	Sale of labor day	Charcoal sale	Sale of lumber	Others
Small farmers	100.0	-	100.0	100.0	100.0
Middle-class farmers	100.0	-	100.0	-	100.0
Big farmers	-	-	-	-	-
All categories	100.0	-	100.0	100.0	100.0

Source: Survey, Dec. 2006

Level of success and failure

It is estimated that the distribution of the improved seeds has succeeded at 70 %. As a distribution strategy, the seeds are given to the farmers at the beginning of the agricultural season according to the same modalities used by World Vision. The same warranty used also provided by the strategy in terms of seeds preservation and availability. It is the same for the results obtained in relation to the program objectives (activity appropriation and improvement of recipients' socio-economic conditions). The improved seed component failure level is in turn, estimated at 30 %. As well as World Vision, it is mainly due to the relay in the distribution in relation to the agricultural calendar, the low amount provided in comparison with the needs and the back of other inputs (fertilizers, pesticides).

2.4.2 Improved Techniques

Grafting and bio-intensive gardening are practiced by the farmers as improved techniques (table 29). According to the survey results about 61,6% of the farmers have produced vegetables on small land lots near the houses on an intensive basis. Some of them have included the use of organic fertilizers and natural methods to control parasites. The most important vegetables involved are:

- Carrots and beet only by small farmers. Most of the farmers in this category (64%) have been using this practice for more than 18 months in Marchand, Mirebalais and Petite Rivière. As far as Maissade is concerned, these vegetables have been cultivated in bio-intensive gardening for less than 6 months.
- Tomato, hot pepper, cabbage, egg-plant and spinach cultivation has been practiced by most small farmers for at least one year in all the communities where the program is being implemented. For the 2 other categories, the practice has been carried out for more than 18 years. Bio-intensive gardening particularly is very common in Verettes as a proof that it is well established in this community. Papaya cultivation is currently made in Maissade by all categories of farmers, by small farmers only in Marchand, Mirebalais and Petite Riviere as well as by small and big farmers in Verettes.

Table 29: Improved Techniques adoption as practiced by category of farmer in Save the Children areas of intervention

Category de farmers	Grafting					
	Maïs-sade	Mar-chand	Mire-balais	Pt Riv. Ar	Ver-rettes	All areas
Small farmers	30.8	3.8	21.4	46.2	53.8	26.6
Middle-class farmers	-	-	-	-	100.0	11.1
Big farmers	-	100.0	40.0	-	100.0	50.0
All categories	23.5	6.9	17.9	36.8	61.9	27.2

Category de farmers	Bio-intensive gardening					
	Maïs-sade	Mar-chand	Mire-balais	Pt Riv. Ar	Ver-rettes	All areas
Small farmers	92.3	80.8	21.4	69.2	76.9	69.6
Middle-class farmers	50.0	100.0	20.0			33.3
Big farmers	100.0				100.0	25.0
All categories	88.2	79.3	14.3	73.7	71.4	62.3

Source: Survey, Dec. 2006

The success of this type of garden with the technical assistance of save the children has motivated the families to increase the cultivated surface area. According to the women groups, the gardens are aimed at meeting the needs of the Household for food as well as revenue for the women themselves from the sale of extra production. The vegetable garden advantages are well understood by the participants.

Success and failure level

Grafting is one of the improved techniques that show a very low level of success with 72% non-users. It is considered as not being applied since practiced by only 20% of the farmers. On the opposite, vegetable gardening has been very successful. Although the number of applicants does not exceed 70%, the success has been ranked at 80% due to the high level of assimilation and application by those who have been taking advantage of the bio-intensive gardening principles. They are still taking care of the gardens and replicating the activities with or without the program assistance.

2.4.3 Soil conservation

The survey results show that 49,6% of the recipients have applied soil conservation practices. The conservation structures mostly concerned are:

- Hedgerows (73%) adopted by almost all categories of farmers in all communities except Petite Riviere where the lots are cultivated on low lands.
- Rock walls (68%) also practiced by all categories of farmers and all communities. However, the application rate is higher for small farmers of Mirebalais and big farmers in general.
- Trash barriers (59%) similarly used by all recipients and communities. The highest rate (92%) is found in Maissade, but these structures are adopted at 38% as an average for each category of farmers. For intermediate farmers in Maissade and Marchand, they are practiced at 100%. As far as big farmers are concerned, the use of trash barriers is ranked at 100% in Maissade and 40% in Mirebalais.

According to the results in table (30), the soil conservation structures are well made (77%) with the CS technical assistance, for the survey results have revealed that the contour lines techniques and associated

scopes are verified for good at 84% and 87% respectively. In addition, soil conservation structures are carried out by about 50% of the recipients involved in the DAP program operated by Save the Children.

Table 30: Main Soil conservation practices implemented by category of farmer based on adopted Structures in Save the Children areas of intervention

Category of farmers	Soil conservation structure					
	Hedgerows	Trash barriers	Contour billon	Rock walls	Others	All structures
Small farmers	24.1	38.8	6.3	22.5	10.1	46.7
Middle-class farmers	33.3	55.6	-	55.6	22.2	75.0
Big farmers	37.5	37.5	-	87.5	37.5	100.0
All categories	25.0	80.0	15.0	5.0	25.0	54.2

Source: Survey, Dec. 2006

As a result of soil protection through these techniques, there is an increase in yields. For this reason, the recipients are motivated to perform maintenance works in the soil conservation structures. Moreover, they understand, for instance, that hedgerows can also provide additional food for livestock.

Table 31: Indicators of evaluation of conservation structures built Save by category of farmers

Category of farmers	Conservation structure evaluation			
	Respect of contour lines	Appropriate slopes	Structures well done	Respect of normal distance between structures
Small farmers	86.5	83.8	78.4	73.0
Middle-class farmers	85.7	100.0	71.4	71.4
Big farmers	71.4	85.7	71.4	71.4
All categories	83.9	87.1	77.4	74.2

Source: Survey, Dec. 2006

Success and failure level

The survey results as well as on site observations have indicated a 60% success rate for soil conservation activities. The basis for this achievement is the recipients willing to control erosion damages on their agricultural plots. Maintenance follow-up is also a good indicator of sustainability. Nonetheless, there is a 40% failure rate as a result of a lack of motivation and technical assistance in some areas involved in the program. In those circumstances, the recipients are persistent in a type of traditionalism consisting in claiming payment for soil conservation works.

2.4.4 Production of seedlings and reforestation

Great majority of surveyed (93.7%) take part in the activities of production of seedlings within the framework of the program. The trees are produced in seedbed by groupings of growers to be then distributed and transplanted to 95% in the gardens of the recipients. This rate varies for the small farmers from 82% at Petite Riviere to 100% at Mirebalais. For mid-class and big farmers trees produced were transplanted at 100%.

The farmers profit from the support of Save and declare that they are ready to continue the experiment, to produce and transplant trees, after the program. The principal species met are: the cedar and the oak (92%), avocado (94%), citrus (Mirebalais and Verretes) and less blazing. One will note that inquired which does not plant trees explain, in majority, which they do not have the economic means for this activity.

The majority of the recipients of DAP / Save take part in the activities of production and / or transplantation of fruit trees or forest. Generally the profit groupings set up collective seedbeds with the technical support of monitors placed at their disposal by Save and the active participation of the members. The produced seedlings will be then transplanted in their gardens, generally near their houses.

Level of success and failure

Just as for soil conservation, it is estimated that this activity succeeded with nearly 75%% for the same reasons that the trees are regarded as agents anti erosion and who at the same time will be used for the production of fruits, boards, wood for heating, etc. The level of failure of 25% comes from the mentality of certain recipients and weak rate of resumption of the transplanted seedlings. The reasons for which certain recipients do not practice this activity remain the fact that for them the reforestation remains the business of the state and that they do not find it beneficial to plant trees without them not being paid.

2.4.5 Credit for production

The credit for production is given especially in nature (seeds) for crops like bean and maize. In the category of the small farmers, 87 % of surveyed profit from the credit to the production from bean and 100 % with the production of corn. For the average growers, 100 % profit from the credit to the production of the above mentioned crops and for the large ones 66.7% received for beans and 75% for maize (table 32). This support in general enables them to increase their production. All in all, the program enables them to produce more, to better preserve, store and sell their products under better conditions.

DAP-Save beneficiaries do not use any particular circuit for product commercialization. They sell products at traditional markets as shown in the survey results that demonstrate between 97 and 100% of farmers do not use any special market.

Table 32: Percentage of farmers per category profiting from the credit to the production for the various crops in the zones of intervention from Save

Category of farmers	Crops for which credit for production was received				
	Bean	Plantain	Manioc	Maize	Others
Small farmers	87.2	100.0	100.0	100.0	86.7
Middle-class farmers	100.0	100.0	100.0	100.0	100.0
Big farmers	66.7	-	100.0	75.0	100.0
All categories	86.2	100.0	100.0	97.6	92.0

Source: Survey, Dec. 2006

The credit with the production relates to especially the activities of improved seeds where the recipient receives from it a certain quantity (bean and corn) in nature which it must restore after harvest with a minimum of interest as announced by introducing the activity of the seeds itself. This activity, according to the results of the investigations makes it possible to increase the production. The rate of success is lower than that of the improved seeds themselves because it should be said that the seed in oneself helps the recipients to increase their income. It is not obvious that they always refund generally arguing a bad harvest. However, an activity of agricultural credit known as is successful when the rate of refunding

makes it possible to reconstitute stocks for the renewal of the cycle, but it often happens that the capital (nature) decreases considerably after 2 or 3 cycles to cancel itself afterwards.

Level of success and failure
The rate of success of this activity reaches 45% because of the low level of refunding of the loans. The failure can also be allotted to the mentality of assisted people because of the limits of the participative approach and absence of a partnership step.

2.4.6 Agricultural products storage and transformation

This activity has not been well developed through Save The Children areas. Maize is the only crop which has been transformed for consuming and some fruits at Maïssade, Petite Rivière and Verrettes. However, all farmers have practiced agricultural product storage. (Table 33).

Table 33: Storage and transformation of the cultures by category of farmers in the sites of intervention of SAVE

Category of farmers	Stocked and/or transformed crops				
	Maize	Ginger	Fruits	Peanut	Others
Small farmers	4.4	100.0	100.0	100.0	100.0
Middle-class farmers	14.3	-	100.0	100.0	100.0
Big farmers	14.3	-	100.0	100.0	100.0
All categories	7.5	100.0	100.0	100.0	100.0

Source: Survey, Dec. 2006

2.4.7 Animal husbandry and livestock sale

The recipients of DAP-World Vision have the practice of the traditional breeding. However, within the framework of the program, an attempt at introduction of improved parents (cocks and goats) is at its beginnings in all the communes and all the categories of farmers take part of it. Table 34 presents a synthesis of the strengths and constraints by activity for Save the Children.

Table 34: Synthesis of strengths and constrains of Save by sphere of activities

Activities	Strengths	Constrains
Seed distribution	-Availability to beneficiaries farmers of seeds with the highest performance	-Insufficiency of the quantity of distributed seeds -distribution delay -drought (climatic conditions) -inappropriate yam drageons -pests and spoilers, - lack of follow up.
Soil conservation	-rise in crop yield -contending erosion	-lack of labor -lack of financial means -lack of technicians
Commercialization & marketing	- generation of complementary income	-lack of training -No credit -Low number of beneficiaries -difficulty of transport -Deficiency in fund management capability
Animal raising	-One of the region economic potentials	-Low number of distributed animals - Distributed chickens not mature -Diseases (bugs, diarrhea) -Lack of veterinarian agents -No drugs nor vaccines
Roads	Allow commodities transport and sale	Improved sections are too short and do not last long.
Small plant production and reforestation	-availability of trees for sale -charcoal production	-No fruit species distributed -lack of nurseries -lack of care after transplantation -lack of follow up on the distributed small plants
Transformation and storage	-valorization of local production	-high cost for transportation -seasonal crop harvest

3. Main conclusions

3.1 General conclusions

Improved seeds

This type of intervention in the form of loan facilitates the access of seeds to much of small farmers who often have difficulties in acquiring them. The problem lies in the fact that these small farmers sell the essence of their production at low price at the time of harvest and buys grains at full prices at the time of the sowing.

On the other hand, the performance of the improved seeds was acceptable for all the partners of execution except CRS. Even if the performance of the handcrafted seeds, in terms of output, were not considered to be too satisfactory compared to seeds used like traditional seeds, one cannot conclude hastily with a low effectiveness from this intervention in the case of CRS. The behavior of the improved seeds was not remarkable only with the phase of harvest. Environmental factors, such for example, the climate, can assign the output to the phase of the formation and filling of the grains.

The aspect which seems more negative in the intervention relating to the supply seeds, it is the non-observance of the farming calendars, in the sense that those often arrive late. This was announced in the case of all CS. This factor is likely to affect the performances of these seeds.

Crops with strong commercial value

For farmers of the fertile zones of the plains, sometimes irrigated like “Roche a Bateau”, “Les Anglais”, the distribution of suckers of "frank" and “musky” banana tree for example allowed the increase in the production of this variety of great economic importance. In some areas, because of the problem of the availability of suckers, the farmers were obliged to plant more fig-bananas than they really needed. Currently, with the intervention of the program, the farmers could decide on the proportion to give to each variety according to the needs of the market. This intervention allowed a certain improvement of the incomes coming from the banana tree crop.

However, in the less fertile zones often on mountains, the distribution of banana suckers did not have the same success. Actually, the program ordered suckers of the same variety of banana tree ("frank" or "musky"). These types of banana trees are very demanding and do not adapt to the not very wet zones of mountains, particularly the not very fertile slopes. Other varieties could be more appropriate. The distribution of suckers of banana tree must be based on the needs expressed in a precise way by the farmers.

Weak participation of the recipients and parachuting of the interventions

One of great deficiencies of the DAP resides in the parachuting of the interventions. The activities seem to have been given in advance and each CS could at least make a choice among the panoply of the considered activities. Recipients and resource-persons affirmed that workshops of identification of the problems and definite needs for the farmers were not carried out before the implementation of the activities. This is why the interventions were not reasoned according to the specificities of the various categories of farmers. The problem of the varieties of banana tree less adapted in the not very fertile zones of the mountains seems to illustrate this point of view. The adaptability of the species constitutes an important factor to take into account because in certain contexts corn, sorghum and the yam could appear more useful.

Strategy of focusing towards the poor

The DAP aims at decreasing the problem of the food insecurity by the increase in the food availability, the access to food and the biological use of food. This program enters the strategy of the USAID to improve the way of life and the basic services to the profit of the vulnerable populations. The DAP, which lies within the scope of the fight against poverty, in spite of the existence of various categories of farmers in his group-target uses, by certain types of retained activities , a strategy of focusing towards the poor. This strategy is justified by the research of the effectiveness and equity allowing people who truly need to benefit of the program. Distribution of chickens and improved pigs besides, illustrates well this strategy.

However, the informal interviews, without giving place to statistically representative measurements, can provide information allowing another appreciation of the effectiveness of the activities of the program. The risk of the practice of the favoritism can be also supported by the choice of this strategy. In addition, the resources theoretically assigned to the poorest are finally conveyed to the most skilful and better organized people. Thus, more fortunate people of the zones of intervention of the DAP acknowledged to have bought pigs distributed within the framework of the program from the poorest farmers.

The weak participation of the women in the activities

Many activities of the DAP / agriculture concern in majority the men who direct the farms most often. The final recipients of the activities of distribution of bean seeds, of suckers of banana trees are in the majority men. The building sites of conservation of grounds engage more men than women. However, other types of activities, like the transformation and the credit aimed much more women.

Concerning specifically CRS, the transformation and credit sections were not developed, which led women to think that they are not taken sufficiently into account within the framework of the program.

Conservation of the grounds and reforestation

The work of correction of gullies had visible effects in terms of reduction of the damage. Moreover, the arranged gullies were quickly developed, thanks to the alluvial deposits by the culture of banana, the "malanga" (*xantosema sp*) etc. Anti-erosive structures were also set up on the level of the country parcels. However, there were no notable changes in the strategies of survival of people.

The reserves expressed compared to this activity relate to neither their effectiveness, nor their relevance. However, the slopes of hay are inappropriate and the quickset hedges are overused by the farmers for cattle food. The installation truly meets the real needs of the population. The engagement of the DAP in this activity seems to have been too timid compared to the extent of the problems of impoverishment of the soil. The engagement seems to be limited not only in terms of resources, but also in terms of time. These activities, started by unquestionable CS in particular CRS during a certain time, did not continue or are quite simply reduced in a considerable way in time. In addition, the plantation of trees was insufficiently associated to the correction of gullies. The training courses in grafting were considered to be too fast. The continuation and the consolidation of this activity would make it possible to consolidate the assets.

3. 2. Specific conclusions

3. 2. 1. CARE

The North-West is a zone where the extra-agricultural activities are important in the strategies of maximization of the incomes of the rural populations. Program DAP laid down ambitious objectives and contributed to the rise in the general level of development of this department in particular the neighboring areas of "Bassin Bleu" and "Bombardopolis". Because of this the program agreed to substantial

investments in order to improve the production tools (Distribution of improved seeds, Conservation of the grounds, Production of seedlings and reforestation, Credit with the production, etc.) and undertaken actions of reinforcement of the capacities and improvement of incomes of the peasants particularly of the women. It also disinclined several localities.

These initiatives, although having constituted a framework of emancipation of the rural world in general and women in particular, however certain major challenges of poverty the such rural migration and the weakness of the local economic fabric did not take up from which the young people are excluded. It seems like that is explained by various reasons:

i) Vulnerable local economy, not based on the diversification of the sources of income;
ii) Insufficiency of structures of support adapted to the needs for the local communities;
iii) Limits of the participative approach; and

i) Insufficiency of an overall vision integrating the relations city / countryside, spaces of dialogue of the local actors and their strategies of diversification of incomes per subfield.

The DAP could not create a framework of rural development integrated opened into the changes of the local systems of production, into the diversification of the sources of income related to the reduction of the risks of the farms, with the promotion of activities, extra-agricultural incomes and employment and with the dynamics of the exchanges city / countryside which however exploits the future of the North-West.

3. 2. 2. CRS

With regard to CRS, the recipients were selected through the groupings partners of CARITAS diocesan of “Cayes”. This approach has certain advantages. The choice of the groupings was thus done on the basis of experience of CARITAS which knows their dynamism, their seriousness. Moreover, the grouping approach facilitates the implementation of the activities of the program by a faster contact with the whole group-targets.

However, the groupings do not seem to come through with a democratic and transparent operation. Certain members complain about the behavior of the leaders of grouping who chose only their close relations to benefit the program. Perhaps, it acts of a lack of information and dialogue on the methods of collaboration to the implementation of the DAP / Agriculture. Certain members do not seem to have understood the strategy of loan of seeds, that is, with refunding of the first recipients, one will be able to serve the others.

In addition, the contacted resource-persons warn against the risk of a favoritism deviance. There are particularly at “Les Anglais” other groupings which for a long time have good references in the zone in the agricultural sector, but which do not take part in the activities of the program, because they are not "CARITAS groupings".

3. 2. 3. WORLD VISION

The results of the investigation of evaluation of program DAP implemented by World Vision in the “Haut Plateau Central” and ”La Gonâve” show that the majority of the considered activities within the framework of the program were implemented with a level of satisfaction of the recipients which exceeds the ordinary average. Almost all the inquired take part in the program of improved seeds and for all the indicators of performance as of the seeds, the rate of satisfaction is very high. The programs of conservation of the grounds, of bio-intensive gardens (or parcels of demonstration) associated to the mini-

systems of irrigation per pumping had appreciable successes. For the production, the distribution of the seedlings and the techniques of grafting, considerable efforts were authorized and the results are rather convincing. However, a lot is still to be made to improve the section of accompaniment of the recipients in storage and the conservation, the transformation and the marketing of the products as well as the breeding.

According to the profit farmers, the project carries certain improvements in the agricultural work of the zone from an economic standpoint as well as technical. To widen the framework of the project is the wish expressed by a significant number of farmers because the quantity of received seeds is tiny and sometimes arrives very late compared to the season of seedling. The delay on the distribution of the seeds constitutes one of the major handicaps for the farmers for at the beginning of the rainy seasons, the seeds are not on the spot. Moreover, it did not follow there for certain activities like the conservation of the grounds, the reforestation and the distribution of the improved seeds.

3. 2. 4. SAVE

Save The Children steps in, directly or through its partners MARCH and HAS, in the implementation of program DAP in five (5) communes at the beginning and now eight (8) where it develops several activities of which improved seeds project which gave more or less satisfactory results according to the commune. Moreover, the bio-intensive garden and the conservation of ground had many positive impacts in the zones where these activities were undertaken. However, the projects breeding, storage and transformation of products are not very wide. Generally, DAP improves the living conditions of the recipients in the surface of intervention of Save The Children.

4. Recommendations

4. 1. General recommendations

The principal recommendations produced in this background document must be used as a guide for the reorientation of the program during the next years according to the objective of this work of evaluation. Before approaching the specific proposals by CS, it proves to be important to clarify the points mentioned below which must touch the whole of the program.

1- Reinforce investments in the agricultural sector

The section Agriculture / Natural resources had a limited importance compared to the other sections of the DAP, according to received information. A more consistent engagement for the financing of this section would be to encourage. Agriculture is an economic activity which relates to a good part of the rural population very struck by the problems of food insecurity and poverty. The natural resources modulate the environment of life of the populations often struck by natural cataclysms. The continuation of the objectives of fight against poverty and the food insecurity passes by actions supported in the agricultural field and the protection of the natural resources.

2- Reinforce actions on soil conservation

More specifically, the actions of soil conservation deserve to be continued and reinforced. These actions, particularly the treatment of the gullies, had visible effects, not only in the limitation of the damage on the roads and the downstream infrastructures, but also on the production by valorization of the alluvial deposits for the culture of species with great commercial value. This asset of the DAP deserves an engagement supported within the framework of another program.

A greater importance should be attached to this activity which will have to be carried out throughout the program. Many work remains to be made in the zones of intervention under study. An inventory of all the gullies must be carried out with programming of their installation.

However, it is important to maintain this approach which distinguishes work with community nature from work on the private parcels. The payment of the workers for the realization of the alteration work, within the framework of projects of creation of job, should not be maintained that within the framework of projects to community nature, like the treatment of torrential gullies or the repair of the roads. On the individual parcels, the program must continue to give responsibilities to the farmers in the realization of their work of protection.

With the intensification of work of creation of job for the installation of the gullies and the maintenance of the roads, the program must take care not to disturb the agricultural activities by engaging many farmers at the times when they should be much occupied in the agricultural work. Work of creation of job offers an in the short run assured income in opposition to work in rain agriculture. The managers of the organizations partners of the execution should be able to have a precise knowledge of the farming calendars so as to intensify the building sites of creation of job for the periods of weak agricultural activity. On the other hand, for the periods of intense farming activities, the building sites can function a certain number of days per week, so as to leave time with the farmers for their activities of agricultural production.

However, work of conservation of grounds should not be restricted with the treatment of the gullies. The installation of the gullies, in spite of its fast impacts, could not be viable long-term, without a parallel work on the slopes. In the contrary case, the advanced degradation of the slopes risks to destroy the thresholds

on the level of the gullies and to cover the beneficial alluvial deposits with not very fertile coarse materials.

It is important to associate the conservation grounds on the slopes a productive approach which privileges biological structures of conservation of grounds whose species give place to higher opportunity costs. With the limitation of the surfaces available for the farms, the anti-erosive structures, in spite of their protective function closes down a certain surface with the production reduce farmer's earnings. This is why, it is necessary to encourage as much as possible structures which have at the same time a conservatory and productive effect.

The reflections on the "bann manje" should be continued to bring innovations according to the species, needs and market, so as to set up effective anti-erosive structures, but also viable from the economic point of view. For example, of the varieties of cane with sugar resistant to the dryness could have an economic interest more important than the grass elephant, in so far as the cane can be consumed at the same time by the men and the cattle. Another innovation in the productive approach could be the erection of quickset hedges of jatropha associated to other species.

Lastly, another lesson which it would be necessary to make profitable within the framework of a new project is a more close integration of the actions of plantations of trees and conservation of the grounds.

3- Associate the fight against poverty and the food insecurity to a strategy of creation of richness.

The strategy of focusing towards the poor of a campaign against the food insecurity and poverty can find its justifications and has also its limits. The implementation of a single approach of relief of the misery of poorest is likely to create the need for permanent use of external environment. In other words, it is necessary to give to the communities, by supporting all their resources the possibility of dealing with themselves.

It would be necessary, on the one hand, to develop and diversify additional activities allowing the generation of incomes for the poor, which would support the access to food. It is also necessary to encourage the increase in the food availability while working directly with the poor producers.

In addition, this type of activity in favor of the increase in the incomes of poorest drawn starting from their own activities could be associated to other activities of creation of richness which target the non poor directly. This last type of activity concerns the promotion of local companies integrated well into the paths of production and transformation in the zones of intervention. It is convenient to encourage for example processing undertakings of agricultural produce which offers regular outlets to the farmers. The micro-units of transformation through the groups of women are very useful, but do not have often an enough wide impact to encourage in a constant way the local production. In other words, it would be necessary to find the means of financially promoting the development of companies of any size, viable, which in more of the outlets offered to the production of the zone can offer employment to the population and even regular incomes. This strategy of promotion of company, even when it targets the non poor directly is likely to have durable impacts on the poor.

Several institutions wrongly hesitate to support "deprived projects", under pretext which the number of final recipient is restricted. It seems promising to support any type of companies which instigates the paths of local production whether they are cooperative or private companies. Different standard of support could be necessary: formation in management, technical training, technical reconversion, financial support. Various methods could be considered with regard to the financial support: loan, partial and even total subsidy. The subsidies could give place to contracts between the contractors and a representative local

organization which could receive supports on behalf of the company for the financing of activities of development. This chain reaction of development which targets the not-poor directly is likely to reinforce the effects of the actions which target the poor.

4- Increase the participation of the recipients

The weakness of the participation of the recipients in the decision levels related to the implementation of the program seems one of the causes of the low level of success of certain activities of the DAP. It is true that a program of development can have certain orientations already determined in advance. However, a certain level of participation of the fascinating parts, at least a regular consultation will make it possible to target the specific needs for the farmers. Several methods of animation and participative data acquisition (x-ray group, brain storming, MARP) can help to target relevant and effective actions. The participation of the recipients is likely to increase the effective appropriation of new technologies and their replicability. The permanent dialogue between frameworks of the program and the target population will make it possible to avoid a whole series of failures observed on the level of the program, like the delays in the distribution of the seeds. Specific needs for species or varieties according to diversity agro-ecological could be taken into account and indeed satisfied.

5- Diversify the technical proposals according to the specific needs

The planning of the activities must be based on a precise knowledge of the diversity of the needs in the zones for intervention, which can induce a larger variety of answers on behalf of the program. This will require for the program manager at the same time more flexibility for maneuvering as well as decision making, so the action can represent an effective response to the specific needs and the identified problems.

Knowledge of the farming calendars must be specified with the definition of deadlines for the arrival of the seeds of each species in the localities or groups of localities, because it can exist differences in the farming calendars in close zones located at different altitudes.

The program distributed bean seeds, but the farmers of many zones explained that the corn and the sorghum are more important cultures in their system of production and consequently, that they have a greater need for the seeds of these species.

Suckers of various varieties of banana (or yams) could be distributed according to the various agro-ecological zones, according to the requests of the farmers.

6- Develop a partnership with the official structures and the other local actors

The program must develop a better partnership with the official structures and the other local actors. The opinions of the structures of the Ministry of Agriculture of the Natural resources and the Rural Development (MARNDR) and the Department of the Environment (MDE), on the central and decentralized level must be taken into account in the orientation of the Program and in implementing the activities. This partnership will allow a better articulation with the actions of the various speakers, to avoid duplications, the inter-institutional conflicts and facilitate the attack of the results within the framework of the national objectives of development. Moreover knowledge of the technicians on the ground can constitute a valuable contribution for the implementation of the program. This partnership should extend to the local communities, responsible for the development of their communities. One of the structures of articulation of the actions could be made up starting from the Platforms of Dialogue which can join together the decentralized services of the central State, the Communities and ONG.

7- Take into account the question of the gender

The Program, to be able to contribute to the reduction of the food insecurity and poverty, may find it beneficial to promote a better taken into account of the question of the gender. The women are actresses who have the capacity to induce positive changes in the environment. In the areas of intervention of the DAP, in more of the women heads of household, others by processing and manufacture of certain agricultural produce and marketing provide additional incomes to their families. All the partners of execution should develop actions of support with the activities of the women in their zones of intervention. It is the same for the activities of microcredit.

4. 2. Specific recommendations

4. 2. 1. CARE

The project will have, in the future, to tackle these problems on the basis of a more participative step and within the framework of an approach of local development type where the agricultural and extra-agricultural occupations combined with the development of activities of services of proximity will have a strategic range and impacts on the local dynamics of development. That will imply strategic choices in terms of instruments and modes of intervention, as well as an efficient institutional assembly likely better to combine the dynamics of the various institutions and local actors.

The DAP should, for this reason, seek a harmonization between the official efforts with his efforts in order to accelerate the processes of development and reduction of rural poverty in the North-West. The recommended approaches should be able to reconcile the requirement of conservation of the natural resources and the requirements of diversification of the sources of income and of the improvement of standards of living of the poor populations, particularly in micro-zones (generally of the under-basins slopes) where the concentration of the interventions should have a range and impacts carrying changes and generators of multiple and durable socio-economic effects. The instruments of support should also adapt to the diversity of the local actors of development to ensure the investments structuring as well as the investments of impulse of the local private initiatives.

The perpetuation of the practices of conservation of the grounds requires measurements of accompaniment aiming at their progressive appropriation by the farmers who would undertake the necessary valorization and maintenance work. The future strategy of support to work of project DAP should be based on a more participative approach founded on techniques adapted to the context. It would result in a plan of total, coherent and precise installation in its methods of financing and execution according to specificities' of each zone of intervention.

In a specific way, will have to be touched the following points:

- Increase the number of recipients
- Continue and intensify the distribution of the improved seeds
- Installation of a shop of inputs
- Irrigation of the zones with weak localized slopes close to the rivers
- Provide more framing to the producers by the increase of the ground agents
- Intensify the formation
- Establish a system of credit at a weak rate
- Introduce improved races which are adapted to the local conditions and being able to give a better production of flesh
- Form veterinary agents and to make prevention

- Increase the availability of the financial resources to be able to improve more sections of road
- Increase the number of seedbeds and to intensify the distribution of fruit trees
- For the transformation, to seek means to plant more fruit-lofts in order to obtain more raw materials

4. 2. 2. CRS

For CRS, it is advisable to encourage the development of certain activities which were not implemented within the framework of the current Program, such as for example the bio-intensive gardens, the transformation and the marketing of products etc. A work of support to the reinforcement of the groupings will be able to facilitate their operation and to increase the transparency in the decision-making within these organizations. It would also be necessary to integrate other groupings which have good references in the zone even if they do not have experience of work with CARITAS.

4. 2. 3. WORLD VISION

The recommendations for a new orientation of the program are as follows:

- To sensitize the recipients on the importance and the durability of the activities of the program in order to carry them to adapt and retort certain assets of the program.

- Listen as far as possible to the populations for better encircling their expectations and to support them in the shutters having relationship with the program.

- Facilitate the access to the credit with the production in the zones of intervention of the program. World Vision should encourage some organizations specialized in credit and in cooperative to give a technical and financial support to local organizations of credit ,or embryonic credit unions so they can provide better services to the population.

- Help or assist the profit populations in the provisioning of inputs and other products necessary to in general undertake their activities and within the framework of the program in particular. This support would consist in helping the Community groupings in the installation of the small shops of inputs and agricultural machineries and small Community stores as wished by certain growers.
- Develop as far as possible, a partnership with the other speakers in the development community, in particular and especially official institutions, in the search of synergy and harmonization from the point of view of coherence for better helping the poor populations to improve their living conditions.

In a specific way, it will be necessary to think of:

- To widen the framework of the project by giving the access to the other farmers who wish it,
- To increase the quantity of distributed seeds which is sometimes too small for to sow parcels of the recipients and to produce the minimal quantity to ensure the survival of the family. This will prevent the beneficiary to be forced to mix different categories of seeds on the same parcel.
- To make the provisions to distribute the seeds in time because delay on distribution of the seeds constitutes one of the major handicaps for the farmers because at the beginning of the rainy seasons, the seeds are not on the spot.

To set up a program of follow-up for certain activities like Conservation of ground, reforestation and distribution of the improved seeds.

4. 2. 4. SAVE THE CHILDREN

In term of specific recommendations for Save The Children by commune of intervention, the principal points mention below can be retained.

On Maïssade:

- To ensure a better coordination (synergy) between the various institutions working in the field of agriculture and between the growers and the technicians
- To help the farmers in ploughing with animal haulage
- To distribute tools to help in the agricultural work and of conservation of ground
- To facilitate the access or the provisioning of inputs by the installation of a shop of inputs
- To train the recipients on the environmental importance of the trees
- To give the types of trees according to the request of the peasants and to distribute some more
- To distribute seeds of good quality and in time and to give insecticides
- To check the maintenance of the anti-erosive structures
- To integrate in the program the road infrastructures to help the flow of the products
- To distribute seeds of good quality and in time and to give insecticides and manures
- Enlarge the bio-intensive garden section of the project
- To facilitate the access to the credit with everyone

On Marchand,

- To give premiums of encouragement at the time of work of conservation of ground
- To increase the number of tools and pumps has sprinkling,
- To facilitate the access or the provisioning of inputs by the installation of a shop of inputs
- To help the recipients to regularly maintain (to clean) the irrigation canals
- To distribute seeds of good quality and in time and to give pesticides and manures
- To ensure a good coordination between the notable ones of the area and the DAP
- To grant the credit in species (in particular for the activities of the women)
- To ensure the flow of the products
- To increase human resources on the ground

On Mirebalais,

- To continue the direct credit with the production
- To increase the number of human resources
- To integrate projects of grafting, breeding and storage in the DAP-Mirebalais program
- To distribute the seeds in time in greater quantity and to give pesticides
- To ensure a good coordination between the peasants and the DAP
- To train the recipients more

On Petite Riviere de l'Artibonite,

- To facilitate the improvement of the road infrastructures for the flow of the products
- To ensure of the veterinary and food care the distributed improved animals
- To ensure the storage of the products
- To train the recipients on the importance of the reforestation
- To distribute tools for the plantation of trees

- To maintain (to clean) the irrigation canals
- To diversify the distributed seeds more and to give them in time
- To integrate banana and rice seeds in the program improved seeds
- To distribute agricultural tools
- To ensure the flow of the products
- Enlarge the breeding project
- To increase the number of human resources with 1 technician by communal section
- To grant the credit in species to the small merchants

On Verrettes,

- To help the recipients to maintain the irrigation canals,
- To increase the quantity of seeds to be distributed,
- To ensure the flow of the processed products on the national and international market
- To increase human resources on the ground
- To intensify the breeding
- To give more framing to the farmers
- To integrate the credit in species for the tradesmen and the credit of materials motorized in the program
- To distribute the seeds improved in time and to give insecticides and manures
- To help the farmers in the tilling of their grounds with bufs and plough
- To integrate the credit in species

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