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THE LUMBO MILLENIUM VILLAGE

EVALUATION REPORT

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Abbreviations and acronyms

CDL	<i>Comité de Desenvolvimento Local</i> Local Development Committee
CRCT	<i>Centro Regional de Ciência e Tecnologia</i> Regional Centre for Science and Technology
CTTDH	<i>Centro de Transferência de Tecnologia e Desenvolvimento Humano</i> Center for Technology Transfer and Human Development
ECTIM	<i>Estratégia da Ciência, Tecnologia e Inovação Moçambique</i> Strategy for Science, Technology and Innovation Mozambique
MCT	<i>Ministério da Ciência e Tecnologia</i> Ministry of Science and Technology
ODM's/MDGS	<i>Objectivos do Desenvolvimento do Milénio</i> Millennium Development Goals
PNUD/UNDP	<i>Programa das Nações Unidas para o Desenvolvimento</i> United Nations Development Program
PNVM	<i>Programa Nacional Vilas do Milénio</i> National Program Millennium Villages
SDAE	<i>Serviços Distritais de Actividades Económicas</i> District Services of Economic Activities
SDSMAC	<i>Serviços Distritais de Saúde, Mulher e Acção Social</i> District Health Services, Women and Social Action
TdR	<i>Termos de Referência</i> Terms of Reference
VMs	<i>Vilas do Milénio</i> Millennium Villages

Executive Summary

The Government of Mozambique in partnership with UNDP and other development partners began in 2006 the implementation of the National Millennium Villages (PNVM). This program fits in the perspective of accelerating the implementation of the Millennium Development Goals (MDGs). To this end the Millennium Villages (VM) were created in Chibuto and Lumbo as pioneers of this initiative.

The PNVM is primarily intended to eliminate hunger and malnutrition, ensure access and attendance of primary education for boys and girls, improving the livelihoods of women and children, reduce HIV/AIDS infection rate, malaria, tuberculosis and other major diseases, increasing the access to water, energy, clean air and sanitation to households, schools and health services and, to eliminate digital disparities through the provision of Information and Communication Technologies. For this reason the MCT was designated as the focal point of the government in implementing the Program.

Approach and Methodology

To carry out this evaluation the researcher took into account the ToRs. In Section 3 (evaluation scope) of the ToRs a number of activities listed from point a) to q) are described. It must be clarified that some aspects of this section refer to the objectives of the evaluation which are in line with the objectives of PNVM [e.g. b), c) and d)]. There are points that relate to the evaluation criteria [e.g. e), l)] and finally one can also notice that there is some repetition. This section was reworked more systematically to ensure greater clarity of the items raised during the presentation of the report.

Some key documents were reviewed to help on the evaluation:

- PARPA II (PRSP II),
 - Government Five-Year (2005-2009) Program
 - PES e OE's 2006-2009
 - Balanços do PES 2006-2009
 - AWP of the Millennium Villages (Lumbo), 2007, 2008, 2009 e 2010
 - 2007, 2008, 2009 and 2010 Reports on the Implementation of the Millennium villages
 - Memorandum of Understanding between the Government, UNDP and Cooperation partners in the implementation of the PNVM.
 - Other documents relevant to the study.
- (a) The interviews were conducted with people involved in the implementation of PNVM at the following levels:
- Members and officials of the Ministry of Science and Technology; Managers at UNDP and development partners
 - District level managers;
 - Consultations with different beneficiaries of the Millennium Villages initiative.

I. The fieldwork included:

- A visit to the district of Mozambique Island, specifically at the administrative post of Lumbo where is located the Millennium Village. In Lumbo the fieldwork took 7 days.

Annex B presents a detailed list of people interviewed in the context of this evaluation.

Conclusions

In general the PNVM is contributing satisfactorily to the achievement of the goals of combating poverty and the MDGs. The impact of the program for communities is notoriously significant and this was confirmed through community members' testimonies.

However, the impact varies from sector to sector. Education, health, fishing and information technology sectors present higher performance. Nevertheless some constraints, the program has a significant impact on ensuring children access to education contributing to the reduction of the illiteracy rate.

There is a gradual increase in individuals' knowledge and attitudes about disease. There is data showing an increasing numbers on hospitals attendance and also higher community health quality. Failure to build a health center reduces significantly the ability of the program to ensure greater access to health care to citizens in the village.

Fishing represents the most active activity in Sancul and has contributed to the increase of income of many families and thus reducing poverty and improving their living conditions. The associational movement developed in the village was a key factor for the success in this sector.

Opportunities for training in computers (computing) as well as the access to information technologies represent a gain in employment opportunities for young people on the island. The benefits of such training are also extended to many other young people not only in the village of Sancul, but throughout the Island of Mozambique.

On agriculture sector we can observe a significant contribution of PNVM, if we consider that before the programme existence, the community were not adhered to farming activities. Today many families in the village are involved in agriculture and specifically in the production of cassava. Nevertheless, the sector needs to intensify their interventions in dissemination of new crops and monitoring the farmers.

Despite efforts made so far in water and sanitation sectors, their impact on the lives of communities is still limited because natural conditions. Additionally, the problem of water scarcity requires an intervention that far exceeds the capacity of this program. In order to overcome the water problems, the Portuguese government that sponsored the village commissioned a study to evaluate the needs and situation of water at the village. As result the World Bank included the village under the water project. It's expected that in near future water supply will improve in the village and contribute for improve live conditions of the communities.

We claim that the program appears to be very relevant to the actual social and economic context of the country. However the current management style can contribute to reduce the program effectiveness and sustainability, because the implementation continues to be very

centralized. In 2010, the creation of a new functional structure at the central unit of PNVM brings new perspectives regard improving the decentralization to local level for increase efficiency, efficacy, and sustainability of the millennium village in Lumbo.

There is a strong collaboration between the district government and the CVL as a result many actions of the village are already being incorporated into the activities of various sectors related to the intervention areas in the village. Many of the activities undertaken by the communities demonstrate that there is potential for the village itself to become sustainable.

The MCT through the new Centre of Investigation and Technology Transfer for Community Development (CITT) has the main catalyst role to promote the use and dissemination of science, technology and innovation for the poorest communities as defined on the criteria's for the installation of millennium villages.

However, the use and employment of science and technology to boost the fighting against poverty is still below the expected real potential. Many activities in VM should in principle serve as a benchmark of excellence replication elsewhere. However, what we observe in some sectors of intervention, suggest the need for more investments in new technologies for increase the capacity of the programme reaching its potential. For example in agriculture, beyond the distribution of inputs, the village does basic extension work. The sector needs to improve its production in value chain through the use of technologies.

The great capacity of community's mobilization offers a possibility for the sustainability of the village and also assures the ownership of the programs by the communities themselves.

Recommendations

This section presents a set of key recommendations to ensure that the Millennium Village in Lumbo can improve its performance and stand as a model to the following:

1. Given the nature of the program, which intends to seek meaningful changes in communities, it is essential to revise the program so that it can be included for each village a clear and logical plan for each year, indicating the objectives and related performance indicators. This will assist to know what the key findings of the program are and how to reach them.
2. It is essential that steps be taken to redesign a system for monitoring and evaluation to more accurately measure the impact of the program and know the level of achievement of the programme objectives.
3. Given that in the vision of the PNVM, each village must work as a referral center that will serve as an example and share its experiences, it becomes imperative that the villages identify among their activities and potential those which they think can fulfill with this purpose.
4. For the program to move forward in line with the decentralization strategy, as established on the ECTIM, the budget should be clear on what level of resources are allocated to the CNPVM and what goes to CVL, in order to increase transparency in the management of funds.

5. The role of CNPVM, CRCT and CVL must be clarified to allow better communication and coordination in the implementation of the program. The role of the CRCT must be strengthened and allocated more resources to CVL so that it has increased and better participation in program implementation.
6. The CNPVM should review the manner it carries out supervision identifying more efficient ways. Currently the program presents very high supervision and travel expenses. Probably the role of the CRCT should be strengthened in overseeing the program, due to its closer link with the village.

I. INTRODUCTION

A. Evaluation Context

The Government of Mozambique in partnership with UNDP and other development partners began in 2006 the implementation of the National Millennium Villages (PNVM). This program fits in the perspective of accelerating the implementation of the Millennium Development Goals (MDGs). To this end the Millennium Villages (VM) were created in Chibuto and Lumbo as pioneers of this initiative.

The PNVM is primarily intended to eliminate hunger and malnutrition, ensure access and attendance of primary education for boys and girls, improving the livelihoods of women and children, reduce HIV/AIDS infection rate, malaria, tuberculosis and other major diseases, increasing the access to water, energy, clean air and sanitation to households, schools and health services and, to eliminate digital disparities through the provision of Information and Communication Technologies.

The implementation of PNVM is coordinated by the Ministry of Science and Technology (MCT) and other ministries have focal points in their areas of competency, e.g. the Ministries of Health, Education and Agriculture, etc. The United Nations are also participating under their new approach to deliver as one.

According to the Terms of Reference (TOR), the main focus of this evaluation is to show progress in the implementation of the Lumbo Millennium Villages and its impact on achieving the MDGs. Based on this analysis to document lessons learned and recommendations for replication of this experience in view to accelerate the implementation of MDGs. Therefore, the focus of this report is on the evaluation of Lumbo millennium village.

B. The Concept of Millennium Village

According to the PNVM a VM represents "a practical demonstration of an integrated rural development based in the community, using better science, technology and experience available in order to ensure the achievement and maintenance of economic development of communities" (MCT, 2006: 3)

C. Approach and Methodology

To carry out this evaluation the researcher took into account the ToRs. In Section 3 (evaluation scope) of the ToRs a number of activities listed from point a) to q) are described. It must be clarified that some aspects of this section refer to the objectives of the evaluation which are in line with the objectives of PNVM [e.g. b), c) and d)]. There are points that relate to the evaluation criteria [e.g. e), l)] and finally one can also notice that there is some repetition. This section was reworked more systematically to ensure greater clarity of the items raised during the presentation of the report.

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- Other documents relevant to the study.

(b) The interviews were conducted with people involved in the implementation of PNVM at the following levels:

- Members and officials of the Ministry of Science and Technology; Managers at UNDP and development partners
- District level managers;
- Consultations with different beneficiaries of the Millennium Villages initiative.

II. The fieldwork included:

- a. A visit to the district of Mozambique Island, specifically at the administrative post of Lumbo where is located the Millennium Village. In Lumbo the fieldwork took 7 days.

Annex B presents a detailed list of people interviewed in the context of this evaluation.

D. Scope of Evaluation

The PNVM started in 2006 and this evaluation aims to examine objectively the relevance, performance and success to date of the program and put forward recommendations based on lessons learned. Based on these premises the evaluator reviewed the following aspects of the program:

- The formulation and program design;
- The implementation and ongoing strategies to achieve the objectives of the program;
- The management of the program.

The evaluation considered the criteria's of efficiency, effectiveness, impact and sustainability. Additional details on the scope of the evaluation are presented in the ToRs.

E. Evaluation Main Questions

This evaluation sought to answer the following questions:

1. To what extent the activities implemented at the Lumbo Millennium Village contribute to the achievement of the objectives of PNVM
2. To what extent the arrangements established for the implementation of the Lumbo Millennium Village took into account the need to ensure its efficiency, effectiveness, impact, institutional and economic sustainability?
3. From the lessons learned through the implementation of the Millennium Village in Lumbo what are the possibilities of replicating this experience to other contexts?

F. Evaluation Constraints and Limitations

The main constraint and limitation of this evaluation is the fact that during the period of data collection, both at central (National Office) and local levels (implementation team in each village) there was no sufficient archive information covering the implementation of the program since its inception. At the National Office a new management team has started functions and was still getting familiarized with program. Moreover, at the local level the coordinator of the project could not provide information for the year 2007 and part of 2008, period during which there was another coordinator in office. In effect, the evaluator had to rely on information provided largely through semi-structured interviews with key stakeholders of the program. It was also not possible to contact the focal points of ministries that work in areas related to the implementation of PNVM.

G. Acknowledgements

To carry out this evaluation it was essential the direct and indirect contribution and collaboration of many people which I can not mention them all. First, I thank all UNDP staff, particularly members of the PNVM team; PNVM staff members from the MCT, the Lumbo village implementation team, and finally the local authorities of the Mozambique Island.

III. THE MAIN FEATURES OF THE PROGRAM (DESIGN)

A. Project Rationale and Strategy

The PNVM as already mentioned above is intended to be a leading initiative in ensuring that governments can accelerate the implementation of MDGs. To this end the Government of Mozambique has appointed the MCT as the focal point for the Millennium villages' project to foster science-based innovations in order to bring solutions for poverty reduction.

In its project implementation mission, the MCT has defined the Millennium Village in Mozambique as:

"The space to functionally and structurally build, a Center for Transfer of Technology and Human Development based on the introduction of active elements (research, technology and innovation) on the pillars of national development (agriculture, education, health and gender equity) MCT (2006:21)

As a result, the MCT has developed a methodology for identifying and implementing millennium villages in order to contribute to the acceleration of the fight against poverty. There ought to use 'capabilities, initiatives and resources of local communities to spread the use of science, technology and knowledge management with a view to promote sustainability.

Based on this methodology the MCT conducted a national assessment on human development conditions at the national level, in order to identify problems related to low Human Development Index in the country and serve as an indicator of progress towards combating absolute poverty.

B. Project Area and Target Group

The choice of each site for the implementation of the Millennium Villages was based on certain requirements. These are: i) the potential and existing local resources, ii) poverty and disadvantages and iii) education and illiteracy index. Each village should thus represent a low-income population with at least 5000 inhabitants. In the case of Lumbo and according to 2008 data provided by local authorities, the village had around 8,085 inhabitants.

The millennium village in the administrative post of Lumbo is located in the coastal area of the *bairro* of Sancul and is characterized by water scarcity. The rains arrive late; starting to rain in December and peaking in February-March. There are some watercourses in the district but they have a periodical regime and sometimes running dry making it impossible to retain water. The soils are sandy and the practice of agriculture is difficult, certain crops are not very desirable, only cassava, maize and beans are grown. The other crops are very risky. In Sancul there is no health facility. The diseases with the highest incidence are HIV / AIDS, respiratory diseases, rates and malnutrition.

Due to limitations to practice agriculture, the most important economic activities in the administrative post of Lumbo are fishing and tourism. These two activities have a great potential to contribute to income generation for the local populations. We can conclude that the choice of Sancul took into account the criteria established for the installation of a village.

C. Objectives and the VM Project Components

The specific objectives of PNVM include the following:

- To eliminate hunger and malnutrition in communities;
- To improve the livelihoods of women and men and increase their income;
- To ensure complete primary school attendance for both sexes (boys and girls) and eliminating gender disparity, including the rehabilitation of infrastructure
- To improve access to medical services;
- To reduce the infection rates of HIV / AIDS, malaria, tuberculosis and other major diseases;
- To increase access to energy, clean air, water and sanitation for households, schools and health services;
- To eliminate digital disparity through the provision of the benefits of communication technologies, especially the access to Internet services and mobile telephone.

These PNVM objectives were contextualized to the specific case of the village of Lumbo by considering fishing and tourism as the activities that have great potential for generating income for Lumbo's inhabitants.

D. Implementing Partners and Organization

An International Consultation Coordinating Committee (CD) was created to ensure the implementation of the PNVM. The CD consists of the MCT, the Ministry of Foreign Affairs and Cooperation (MINEC) and UNDP. To guarantee supervision of the implementation of the program a central unit was established at the level of the MCT. To ensure implementation at the local level a committee of Local Village (CVL) has been created and must operate in close coordination with the Regional Centre for Science and Technology (CRCT), the district authorities, and local community leaders.

At the beginning of the program technical responsibilities for the staff were defined. The National Program Coordinator of the Millennium Villages (CNPVM) was granted responsibilities to coordinate and ensure the implementation of the plan of activities of the VMs and their management structure. In its turn the CRCT should ensure the coordination of all activities on the VM in their areas of jurisdiction. In principle each CVL should ensure the implementation in their respective village.

Still in its implementation strategy the program developed a number of partnerships relevant to the achievement of its objectives. At the local level, the program should ensure the integration of local governments, NGOs, private sector and local associations of farmers and breeders. At the national level, the program also aimed to develop partnerships with the private sector, civil society and research institutions in various areas. Finally, at regional and international level should ensure synergy and exchange of experiences.

To finance the villages, the Government of Mozambique created a Trust Fund for Millennium Villages (TFVMM) to be managed by UNDP. The contributions to the implementation of the VM's could also be performed, not only with money, but other forms such as foodstuffs and goods. The funding for the Lumbo VM came from the Portuguese government, with a total of U.S. \$ 874,670.00 for the period 2007-2009.

E. Major Changes in Policies and Institutions During Implementation

The PNVM which initially started with two villages namely Lumbo and Chibuto, it grew fast. What had originally been conceived as a project has reached the size of a large program. This brought difficulties in terms of human and financial resources for its management. Additionally, the government began to include activities that were not included the project.

As the village started gaining visibility, it attracted more attention from the provincial government, which got interest to learn more about its functioning. This created difficulties in the logical structure of accountability.

The Government came to acknowledge the contribution of PNVM in mobilize the communities, under their efforts to fight poverty and achieving the MDG's. In other to improve the efficiency and sustainability of the PNVM the government created in 2010, the Centre for Investigation and Technology Transfer for Community Development.

E. Changes of the Project Design During the Implementation phase

In the concept of the VM is recommended that each is composed of at least 5000 people and with a budget of 350,000 USD a year, where 70% should be guaranteed by partners and donors and 30% by the government. The government's contribution was in infrastructure and human resources.

The program was unable to ensure that only 5,000 people benefited from the program. This means that in Sancul the program had 8,085 people. According to some interviewees, as the village becomes more visible, it tended to attract more people. The concept of 5000 people turned out to be difficult to apply in many parts of the country.

One of the main elements of PNVM is founded on decentralization as established in the Strategy for Science, Technology and Innovation for Mozambique (ECTIM) which also seeks to ensure the dissemination and popularization of science in disadvantaged communities. In designing the program it was expected that the CNPVM, CRCT and the CVL to operate in strict cooperation to materialize the implementation of the objectives. What happened in practice is that coordination at the central level focused heavily on implementing the program activities, reducing the role of CRCT and with little interaction with CVL. This style of management resulted in little resources channeled to CVL. Many of the activities implemented at the central level could be better performed by the CVL.

IV. SUMMARY OF RESULTS

In this section are presented the activities implemented and results achieved in each area. One of the conditions to assess the outcome of any evaluation program is that key findings and their respective indicators must be clearly identified at beginning. This requires that a database or baseline is in place. These components are essential to establish monitoring and evaluation of outcomes of any program. At the level of the Lumbo village data provided through interviews does not allow an accurate assessment of the impact of the program. Much of the information collected was based on the perceptions of key stakeholders of the program. To overcome this gap we undertook a triangulation of information from various sources.

1. Education

In regard to education the implementation of the Millennium Village brought added value to the community. A strong awareness work about the importance of education was initially developed followed by the identification of children in school-age which were not attending school. All these children are currently studying at grade two and three. Additionally, three childhood education centers were also created by the program.

Currently, the village has a reference school, with 2002 students enrolled between grade one and three, 805 adults who are assisted directly studying grade one and three. There are about 605 children in childcare centers. This year, 2356 students are studying in grade one up to seven and all literacy centers are integrated benefiting 491 adults.

In the current year (2010) due to lack of resources, many children did not receive support in terms of school supplies. Many of these children can not afford to pay for their studies. Thus, there has been a growing absenteeism. Some classrooms are deteriorating and may not be used when there is rain and cold weather.

This year plan included the construction of more classrooms, which was not accomplished due to lack of resources in the project. Despite these constraints, all the activities which do not depend on the project resources are being implemented smoothly. The district government helps to pay the teachers and supply of teaching materials under the direct support to schools package. The village reference school has been also receiving support from the district government. The classrooms were built by the district government with the support from students parents.

Results

Although there are some constraints in general the program has a significant impact on ensuring children access to education, contributing to reduce the rate of illiteracy.

2. Health

Comparatively to years prior to the implementation of the program we highlight significant changes. Before the program people in the community suffering from a disease could constantly approach traditional healers. One of the program's first activities was the beginning of awareness campaigns to promote awareness and attitudes change in relation to diseases. For this purpose a survey about communities' knowledge and attitudes in relation to diseases was carried out in 2007.

Awareness campaigns aimed at increasing access to information and knowledge about diseases such as malaria, diarrhea and HIV/AIDS. This included talks, plays, health education activities and videos projections. In 2008, there were 38 plays and 29 talks on community health. A total of 32 dramas were performed in 2009 and 18 plays and 21 talks in 2010. In 2008 a total of 4,023 people participated in plays and 4,432 people in plays and talks by 2009; prevention messages, how to proceed when a person has a disease, where to refer him and first aid.

A direct result of these actions is the recognition by health authorities of an increased people's attendance to health facilities. The program also uses mobile brigades and the distribution of drug to people in need. There was also a training of a group of 31 persons to act as health activists in the communities.

The program installed a blue library using material from the area of health, comprised of a computer and manuals on health. Since the opening of the library in August 2010 it has been attended by over 210 people (including nurses, community and employees). Much of the material available at the blue library is on health and disease prevention

The plans of the MV included the construction of a health center and for that effect a house had been identified by the program. The center was not built due to the misfit with the policy of the Ministry of Health (MOH), which advocates the elimination of health facilities and privileges the construction of health posts. The program had no funds for the construction of a health center. Moreover, there is a health facility which is located five kilometers from the village which is being considered as solution after has benefited from some improvements.

The village of Lumbo has 4 *bairros*. In 2008 each *bairro* received a bicycle ambulance. However, only one of the bikes was working as it was used in areas with good roads while others got damaged as a result of bad roads. Despite the benefits in healthcare, mortality due to diarrhea is still a problem and many women still turn to midwives. There was an intention to build a small center for traditional birth attendants.

The program is implemented in coordination between the District directorates of Health and, Women and Social Action (SDSMAC) and focus on preventive activities and vaccinations in the village. There is calendar for the immunization of women and children. There have been instituted monthly days of health, a mobile medical consultation (once a month) and the distribution of mosquito nets to prevent malaria in the village.

Meetings with traditional medicine practitioners have been promoted providing them with relevant training. These practitioners are able to refer (using stamps) sick people to health centers which results in a significant increase in the number of people who access health services.

Results

There is a gradual increase of individuals' knowledge and attitudes about disease. Available data show an increase in people attendance to hospitals and higher community health quality. The failure to build a health center reduces significantly the ability of the program to ensure greater access to health care to citizens in the village.

3. Water and Sanitation

In the sector of water and sanitation there were 10 talks held in 2009 and this activity continued in 2010. The content of these talks focused on hygiene awareness, fighting against defecation in open spaces and sanitation. There are changes in risk behavior and attitudes due to the access to information.

The water being used in the region of Sancul comes from water holes and it is brackish and unfit for human consumption. For the current year (2010) the program had forethought to open water holes but this activity was not undertaken. A survey conducted to assess the need for building a network of water supply in the region showed high costs which exceed largely the financial capacity of the program. There persist difficulties in the access to water and people have to walk 2-3 kilometers to get water.

In the sector of sanitation it was planned the construction of 12 latrines, but it was only possible to build 3 and these are located in three schools. The village in coordination with the SDSMAC collected water using a portable kit and sent it for analysis at the provincial unit. Furthermore, wells were identified and *certeza*, which is a product for water treatment, was distributed as well as awareness campaigns for people to boil water as the simplest way of water treatment. The environmental sanitation has been improving significantly, contributing to the reduction of diseases such as diarrhea.

Results

SDSMAC has an interest/concern to integrate on its planning a number of activities associated to the millennium village. This action aims at ensuring the program's future sustainability.

Although we can mention positive impact in terms of improved environmental sanitation and individuals' hygiene, the access to water remains a major concern for the residents of Lumbo. In particular, Sancul's geographical location which is far away from sources of potable water and the invasion of sea water in the soil contributes to limit the inhabitants' access to water.

In order to overcome the water problems, the Portuguese government that sponsored the village commissioned a study to evaluate the needs and situation of water at the village. As result the World Bank included the village under the water project. It's expected that in near future water supply will improve in the village and contribute for improve live conditions of the communities.

4. Fishing

Given Sancul's location and the unfavorable conditions for the practice of farming the fishing industry presents a potential for generating income of communities. For this reason, in the millennium village the production of fish through the existing associations accounts

for about one third of the district, according to estimates by district authorities in economic activities.

Fishing and artisan associations in Sancul have benefited from support in a variety range of equipment. The association of fishermen received an equipped fishing boat with capacity for 30 persons and 80 boxes of 30kgs each. Similarly, an association was created dedicating on the conservation of fish through salting and cold means. This association has benefited from two freezers of 420 liters each and the installation of power in its premises.

The district has benefited from fishing from the village of Lumbo. This shows how the association of fishermen represents an example of civic engagement at the district level. There is also an association of handcrafters which is funded by the district development fund known as the 7 million. In the Lumbo millennium village one can say that the mobilization of the community contributed to some extent to raise awareness and stimulate the development of an associative movement.

However, the fishermen and other inhabitants of Lumbo do recognize that they should seek to develop other activities and not be limited to fishing as a way to improve and diversify the income of households. For instance, while men engage in fishing women could do farming.

The District Directorate of Economic Activities (SDAE) has also helped in terms of legislation for fisheries and the use of fishing equipment, according to new procedures for the conservation of natural resources.

Results

Fishing is the most important activity in Lumbo and it contributes for many families income leading to the reduction of poverty and improvement of their living conditions.

5. Tourism

Apart from fishing, tourism is another activity with great potential for Lumbo. The implementation of the Village brought significant changes to the area because Lumbo has always been seen as an appropriate area for tourism, but it was little exploited. With the program, touristic places and historical sites were identified (e.g. Arab Cemeteries which have an important historical value) to be redevelopment and better used.

In Collaboration with the Cabinet for the Conservation of Mozambique Island (GCIM) and the involvement of local communities, cemeteries were identified and cleaned. Four touristic guides were trained though the number was insufficient. The program also built a tour desk on the Mozambique Island aiming at developing and set up a touristic area. Moreover and in collaboration with Arco Norte a group of 25 handcrafters (13 women, among them) were identified to run a touristic enterprise.

Many activities in the sector of tourism have not been accomplished. These activities included the placement of seats on the beaches and the construction of a carpentry workshop for craftsmen. There was lack of resources to carry out all planned activities.

Results

Since tourism is considered as one of the activities with potential to increase income in the village, activities to date have not contributed to stimulate or boost up this industry. Tourism does not contribute significantly as a source of income and employment for many inhabitants of Sancul. However, the establishment of associations has publicized the tourism potential of the area.

6. Agriculture

The village of Lumbo is located on the coast where there is scarcity of water. The rains are irregular, starting late (December) and reaching a peak in February and March. Although there are streams that have a periodical regime, this does not allow the storage of water. The land is sandy and suffering from saline invasion, which complicates the practice of agriculture. Certain crops are not very desirable only cassava, corn and beans have been encouraged.

Generally speaking, the majority of peasants practice subsistence agriculture. Most of the production goes to consumption and a small portion of the surplus goes to marketing. The most common crops are cassava, corn, vegetable, cashew nuts, sesame and beans but only cashew nut and sesame are the most marketed.

The main concern at the beginning of the program was the fact that most of the population in this area dedicated mostly to fishing and agriculture was practiced by women. With time many men shifted to agriculture due the first benefits from farming.

In the area of Sancul where the millennium village is located it was common to see pockets of malnutrition. With the introduction of the program in 2008 and 2009, there were positive changes. Specifically, farmers were provided with inputs, pesticides, fertilizers, maize seeds and other crops, livestock (goat), and even machetes and hoes. The production has been increasing progressively, particularly in the rainy season. The village came to host a reference crops demonstration field (beans field, sesame and cassava production). There was also a major effort to re launch the production of cabbage and tomatoes. Sancul reached in 2008, a production of about 45,000 tons.

In 2008 the program conducted training on local methods of seed conservation, excluding the use of chemicals and involving low costs. They used gray ash and red pepper, which when placed under clay pots prevents the penetration of insects. There have also been trained nine women and one man which are members of an association that dedicates to the production of beans crop (*feijão nhemba*). Training contents included the use and application of chemicals, techniques of drainage and soil conservation in the communities. What happened is that with the use of the hoe many peasants dragged part of the land where the greatest concentration of nutrients is located. They came to recognize that grass turned into organic material. Another 14 (10 women and 4 men) members of an association in the village were also trained on how to raise chicks

In 2009, still under training activities a committee was empowered to work alongside with an extension worker assisting in the dissemination of agricultural technologies associated to trainings attended. One of the priorities was the dissemination of contents related to cassava diseases (e.g. aspects that cassava leaf displays), continuation of the training in soil conservation and others.

In 2010, the village has established a results demonstration field (CDR). Specifically, in small fields the process of planting corn and vegetables was explained. As a result all communities in the village adopted the use of these techniques. It was very different from previous practices, because the farmers have learned to estimate their production and began to master the techniques of planting and other activities. This represented a significant evolution for the community.

In addition, the District Directorate of Economic Activities (SDAE) appointed a technician to work as an extension worker in the program. There is a joint planning between the SDAE and CVL and some collaboration in joint activities. Yet again, the SDAE provided the village some inputs in corn and beans seeds. At present, 700 farmers are active in Sancul. The extension worker supervises and follows activities performed by farmers by giving them some guidance.

For this year (2010) campaign the SDAE provided 600 kg of maize seeds and between May and June (2010) pesticides were provided and the extension worker monitored the fields. Some projects that come from the village have a special consideration and as a result some of these projects were funded in 2009 through the investment fund for local initiative. On the design of the VM program it is indicated that the village should serve as a point of reference in using science and technology and ensure the replication of experiences to other areas. Despite the results achieved so far the village is still far from clearly realize this dimension.

The program also supported the construction of poultry, benefiting the association '*força de unidade*' whose members received training for this purpose. Currently, the association is running autonomously its business and plans to expand production in future. There is a great demand for the chickens produced by the association because of its recognized quality. Apart from raising chickens, the program has provided funding for micro-credit to 12 beneficiaries (7 women and 5 men) for locally run small businesses.

To solve the problems of unsuitable soils for agriculture and water shortages, the project was granted by the company João Ferreira dos Santos (JFS), an area of 40 ha located at a distance of 25km from the village. However, lack of transport and a tractor was pointed out by peasants as a limiting factor for undertaking the full utilization of these new areas.

Results

The majority of Sancul's inhabitants are devoted to fishing but the practice of agriculture appears to contribute to the diversification of income generating activities. Among peasants there is a great capacity to use new technologies and production practices, resulting from the transfer of knowledge.

Financing of small businesses provided beneficiaries the opportunity to expand and diversify their income and thus improve the status of their households. These businesses are able to ensure their own sustainability.

7. ICT Development

Before the inauguration of the Center for Technology Transfer and Human Development (CTTDH) on the island of Mozambique, there was a computer room equipped with 20 computers providing training to 40 students divided in two shifts. The beneficiaries were

mostly students from the village of Sanculo and they could learn the five software package (windows, excel, words, PowerPoint and internet). Initially 161 people including 77 women were formed.

Once the CTTDH construction was completed, training activities were transferred from the island to the village benefiting 150 people trained in computing. The previous room become a computing project (internet café) in which residents pay to attend courses and access the internet. There is great demand for Internet services by students registering a greater influx during school terms. The training activities in computers use benefited not only young students, but also many civil servants.

In the premises of CTTDH, English courses are also provided having benefited some 90 people. These training courses had the support and collaboration of the Association of Small Business Operators in Tourism (APETUR).

Currently the CTTDH has 47 computers. It is difficult for local staff to guarantee the maintenance of the computer room due to the lack of resources since the budgeted amount for maintenance is not being made available. There must also be noted that the CTTDH building status, such as poor electric installation endanger the maintenance of equipment.

Results

Opportunities for training in computing as well as access to information technologies represent a gain in employment opportunities for young people on the island. The benefits of such training also extend to other young people not only in the village of Sancul but throughout the Island of Mozambique.

8. Gender and HIV / AIDS and Social Action

In the sector of HIV/AIDS priority has been on awareness raising, prevention and knowledge about the disease. As an example in 2009 five talks on prevention and fighting disease were undertaken with a group of 19 elements (9 women and 10 men). The talks included the involvement of the presidents of communities who afterwards are in charge to disseminate the content taught in the talks.

According to health authorities throughout the district there are 900 registered HIV / AIDS individuals of which 266 are under Anti Retro Viral Treatment (ART). Besides the talks there have been homecare visits to attend people on ART to control the administration of medication and also searching for those dropping out active treatment. Reference letters for those who leave health units were distributed, as well as the distribution of manuals on HIV / AIDS prevention and condoms for men and women.

In regard to gender a group of dressmakers composed of 20 ladies and a trainer was created and training on income generating activities and small businesses was also undertaken.

Since 2007, a total of 50 of 103 elders identified in the village are eligible for an allowance in food. This subsidy is funded by the National Institute of Social Action which has been performing activities on nutrition education.

In terms of health care for women, the district made an improvement reaching a rate of 96% institutional deliveries. There was also an increase in adherence to outpatient treatment and reduced malaria cases by 50% due to the distribution of mosquito nets.

In the village there was a process of registration of vulnerable children through the Committee for Orphaned and Vulnerable Children. There is a group of women in income activities and small businesses. Actions were also held to publicize the family law in VM.

Results

There is greater consideration and awareness about HIV/AIDS and the condition of women in the village. There are also a large number of women engaged in various productive activities that generate income, allowing them to raise their condition.

IV. PERFORMANCE OF LUMBO PNVM

A. Relevance

The fighting against absolute poverty in Mozambique is described as a national priority in different documents such as the Government Five-Year Plan (QGP), the Action Plan for Reduction of Absolute Poverty (PRSP) and the 2025 Agenda.

Mozambique is one of the countries that adhered to the Millennium Development Goals (MDGs), and since then the country structured its planning process to ensure the accomplishments of the MDGs goals. This aspect is evident in many policy and planning documents of the country. For instance, the MCT (2006) states that the millennium villages are in line with government priorities, which is why the country decided to adhere to this initiative promoted by Professor Jeffrey Sachs.

There is no doubt about the relevance of the PNVM for Mozambique and it is being implemented with a great sense of innovation by investing in the potential that science and technology can offer. Thus the program emphasis is on a rapid expansion and popularity of science as well as rapid deployment of science solutions and innovations to the benefit of the poorest people. For that reason, the millennium villages are seen as points of reference in terms of changes in combating poverty and accomplish the MDGs.

However, the concept of Millennium Village as adopted in Mozambique is somewhat ambitious given the political and socio-economic reality of the country. This can be testified by what is happening at the village of Lumbo which is not yet effectively functioning as a referral center for best practices and experiences to be replicated. In some cases much of what is achieved in terms of results is not different from other programs that are being implemented in several areas elsewhere.

B. Effectiveness

The analysis on effectiveness or efficiency shows how far the program has achieved or expects to achieve its objectives, according to their order of importance. The possibility of carrying out a systematic analysis of achievements depends on the existence of a good monitoring system, which clearly indicates the qualitative and quantitative input and output of the program, expected results and impact indicators.

In the particular case of PNVM, it is not possible to understand from existing documents clear and logically the order and sequence of objectives and their performance indicators. The assessment that is undertaken here takes into account mainly the perceptions of stakeholders and beneficiaries of the program. We relate the objectives of the program presented above with the VM areas of the village of Sancul and the MDGs.

A general assessment of the effectiveness of the program in regard to the period 2007 to the present, leads to the following conclusion: we consider the efficacy of the program as satisfactory. The program has direct and indirectly achieved significant progress, but that vary in intensity from sector to sector. There is a great transformation in communities in Lumbo, and the village that once was a completely marginalized area is becoming known.

The sectors that are considered to have contributed more significantly to changes in Lumbo are: fishing, education, health, computing, associational life and the generation of income. The section that presents the results demonstrates in detail the evidence for such judgment.

The sectors of agriculture, water and sanitation deserve special attention in the program. It was possible in the sector of agriculture to ensure that a significant number of individuals who were engaged in fishing and other activities to get interest in farming and have received a lot of knowledge transfer. There have been improvements in terms of attitudes on the part of residents regarding sanitation. To further improve agriculture there is a need for intervention at the village level which goes beyond the possibilities of the program.

The tourism sector which is considered to be potentially a good source of income in this area was not able to make a significant contribution in community life. The same can be said in relation to gender, HIV / AIDS and Social Action.

C. Efficiency

As noted above, the village of Lumbo is funded by the Portuguese government, which provided for the period 2007 and 2009 an amount of \$ 874,670.00. The table below shows the summary of the project budget.

Tabela 1: provisional Financial Report to Government of Portugal

	2007	2008	2009	Total(USD)
Income				
Valor (USD)	174.893	349.884	349.893	874.670
Expenditures				
Personel	36.000	43.389	69.762	149.151
Travel	26.200	22.755	59.259	108.214
Sub-contracts	508	38.771	27.577	66.856
Office equipment			18.000	18.000
Transport Equipment	676		2.131	2.807
IT equipment	9.796	20.801	33.944	64.541
Audio Visual equipament	18.895			18.895
Agri and Forestry Products	6.254		37.124	43.378
Furniture	1.398	7.500		8.898
Other material and goods	21.801	102.900	21.294	145.995
Publications		9.731	3.757	13.488
Operational Costs	17.945	47.761	29.922	95.628
Total Project Costs	139.472	293.608	308.770	735.851
General Management Support (5%)	6.975	6.862	11.843	25.680
Total Expenditure	146.448	300.470	314.613	761.531
Excess/Shortfall of income over expenditure	15.671	64.832	41.913	
Beginning balance of unexpected resources		15.671	64.832	

Source: PNUD 2009

It was difficult for the evaluator to accurately determine the program's performance in terms of efficiency. Most reports and documents of the program do not provide a detailed budget for each year. What we saw in some reports was only the statement of expenditure.

The Millennium Village approach implies that for each year the village has a budget of at least \$ 350,000 for a village of 5000 people. The funds are channeled through the UNDP to the MCT and 10% of this budget is destined for the central office and the remaining is used for the implementation of the village. The village of Lumbo had a total number of 8,085 people and with the budget described above is impossible to implement in full the vision of the millennium villages as designed in the founding documents. It is important to note that the above budget solely refers to the contribution of the donor. Many other actions were undertaken to guarantee the implementation of the village, which was not possible to estimate their cost. These contributions came mostly from the district government and other local partners.

Two important considerations must be made about the effectiveness of the program. First, it was described by various stakeholders involved in the management of the program the problem of delays in disbursements. This issue was presented at the local level by the team of CVL. The second issue relates to the management structure of the program. There are no clear roles for management, supervision, organization and implementation in the interaction among the CNPVM, CRCT and CVL. This lack of clarity resulted in the CNPVM to centralize to itself the functions of implementation undermining the role of the CRCT and reducing the CVL implementation role. This situation has partly affected the efficiency of the program because many activities could have a greater impact if undertaken by the CVL. The most worrying situation was the inability of CVL to pay current expenses, delays on the payment of salaries among others.

D. Sustainability

Since the program as an alignment with other strategies for development of the country, with particular emphasis on the area of decentralization, this allowed a strong collaboration with local governments. As part of planning activities at the district's level some actions by VM are already included in the plans of the sectors. Examples of this are the sectors of health and agriculture. These sectors in addition to having available resources, they have been supplying with inputs and medicines that are contributing to the functioning of the Lumbo VM, at the moment that the project did not receive funds from the donor.

Some income generation projects have gained autonomy and can be ran without resources from the budget of the Millennium Village. Also, one of the main strengths of the VM was the intensification of social capital, cooperation and trust, as manifested through the established of various associations. These projects can also benefit from the Investment Fund for Local Initiatives, known as 7 million for strengthening their sustainability.

Still under the sustainability strategy it is planned to integrate the local management structure in the CRCT. However, until now the CRCT has had little visible role in terms of its performance in the village.

The major element for improving the sustainability of VMs is its capacity to mobilize local communities allowing them to take ownership of the initiative. However, this factor may be affected by less efficient and effective style of management, which was quite centralized and reveals a little effective communication between local (the VM office and local authorities) and central levels (central office in the MCT). The new challenges for the programme is to create mechanisms for ensure the sustainability and efficiency through the ongoing decentralization process.

V. CONCLUSIONS

In general the PNVM is contributing satisfactorily to the achievement of the goals of combating poverty and the MDGs. The impact of the program for communities is notoriously significant and this was confirmed through community members' testimonies.

However, the impact varies from sector to sector. Education, health, fishing and information technology sectors present higher performance. Nevertheless some constraints, the program has a significant impact on ensuring children access to education contributing to the reduction of the illiteracy rate.

There is a gradual increase in individuals' knowledge and attitudes about disease. There is data showing an increasing numbers on hospitals attendance and also higher community health quality. Failure to build a health center reduces significantly the ability of the program to ensure greater access to health care to citizens in the village.

Fishing represents the most active activity in Sancul and has contributed to the increase of income of many families and thus reducing poverty and improving their living conditions. The associational movement developed in the village was a key factor for the success in this sector.

Opportunities for training in computers (computing) as well as the access to information technologies represent a gain in employment opportunities for young people on the island. The benefits of such training are also extended to many other young people not only in the village of Sancul, but throughout the Island of Mozambique.

On agriculture sector we can observe a significant contribution of PNVM, if we consider that before the programme existence, the community were not adhered to farming activities. Today many families in the village are involved in agriculture and specifically in the production of cassava. Nevertheless, the sector needs to intensify their interventions in dissemination of new crops and monitoring the farmers.

Despite efforts made so far in water and sanitation sectors, their impact on the lives of communities is still limited because natural conditions. Additionally, the problem of water scarcity requires an intervention that far exceeds the capacity of this program. In order to overcome the water problems, the Portuguese government that sponsored the village commissioned a study to evaluate the needs and situation of water at the village. As result the World Bank included the village under the water project. It's expected that in near future water supply will improve in the village and contribute for improve live conditions of the communities.

We claim that the program appears to be very relevant to the actual social and economic context of the country. However the current management style can contribute to reduce the program effectiveness and sustainability, because the implementation continues to be very centralized. In 2010, the creation of a new functional structure at the central unit of PNVM brings new perspectives regard improving the decentralization to local level for increase efficiency, efficacy, and sustainability of the millennium village in Lumbo.

There is a strong collaboration between the district government and the CVL as a result

many actions of the village are already being incorporated into the activities of various sectors related to the intervention areas in the village. Many of the activities undertaken by the communities demonstrate that there is potential for the village itself to become sustainable.

The MCT through the new Centre of Investigation and Technology Transfer for Community Development (CITT) has the main catalyst role to promote the use and dissemination of science, technology and innovation for the poorest communities as defined on the criteria's for the installation of millennium villages.

However, the use and employment of science and technology to boost the fighting against poverty is still below the expected real potential. Many activities in VM should in principle serve as a benchmark of excellence replication elsewhere. However, what we observe in some sectors of intervention, suggest the need for more investments in new technologies for increase the capacity of the programme reaching its potential. For example in agriculture, beyond the distribution of inputs, the village does basic extension work. The sector needs to improve its production in value chain through the use of technologies.

The great capacity of community's mobilization offers a possibility for the sustainability of the village and also assures the ownership of the programs by the communities themselves.

VI. RECOMMENDATIONS

This section presents a set of key recommendations to ensure that the Millennium Village in Lumbo can improve its performance and stand as a model to the following:

1. Given the nature of the program, which intends to seek meaningful changes in communities, it is essential to revise the program so that it can be included for each village a clear and logical plan for each year, indicating the objectives and related performance indicators. This will assist to know what the key findings of the program are and how to reach them.
2. It is essential that steps be taken to redesign a system for monitoring and evaluation to more accurately measure the impact of the program and know the level of achievement of the programme objectives.
3. Given that in the vision of the PNVM, each village must work as a referral center that will serve as an example and share its experiences, it becomes imperative that the villages identify among their activities and potential those which they think can fulfill with this purpose.
4. For the program to move forward in line with the decentralization strategy, as established on the ECTIM, the budget should be clear on what level of resources are allocated to the CNPVM and what goes to CVL, in order to increase transparency in the management of funds.
5. The role of CNPVM, CRCT and CVL must be clarified to allow better communication and coordination in the implementation of the program. The role of the CRCT must be strengthen and allocated more resources to CVL so that it has increased and better participation in program implementation.

6. The CNPVM should review the manner it carries out supervision identifying more efficient ways. Currently the program presents very high supervision and travel expenses. Probably the role of the CRCT should be strengthened in overseeing the program, due to its closer link with the village.

VII. REFERENCES

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ANNEXES

A. Terms of Reference

B. List of Persons interviewed

B List of interviewed people.

A. Maputo, 19.11.2010

Vitoria de Jesus Langa- MCT

B. Lumbo, 22.11.2010

Amade Salimo Mohamed- Chefe do Posto de Lumbo

C. Lumbo, 22.11.2010

Focal Groups

1. Berlino António Carlos- Extensionist worker for Administration, Finance and Human Resources;
2. Crispino Quintino Saguete- Extensionist worker for Health, Women and Social Action;
3. Atumana Alface Junior- Extensionist worker for ICT'S;
4. Argentina Teodoro- Extensionist worker for Gender and HIV/AIDS;
5. Luisa Fernando Marcus- Extensionist worker for Education;
6. Issufo Muze Ali- Extensionist worker for Tourism;

D. Lumbo, 22.11.2010

E. Focal Group with members of Local Development Committee (CDL)

1. Paulino Buanamade- President of CDL
2. Abdala Atumane- Chief - Post of Lumbo.
3. Raimundo Ferrão- Member of CDL
4. Miguel Armando- Member of CDL and Beneficiary of Micro-credit
5. Maimuna Abudo- Association of dressmakers
6. Mariamo Muhando- Member of CDL
7. Alima Momade- Beneficiary
8. Atumane Mussa- Member of CDL
9. Ibrahim Daudo- Member of CDL and Associate of aviculture
10. Atumane Mussa- Presidente of the Association of Fishermen
11. Mussagi Esiaca- Member of CDL
12. Assane Suleimane- fishing Associated member
13. Ali Acacio
14. Miguel Armando- Micro credito, beneficiary
15. Mayassa Ibrahim
16. Cadri Assane

F. Mozambique Island 11/23/2010
Elisio João- Director of Agriculture and Economic Activities Services - 829040630

G. Mozambique Island, 11/23/2010
Lucia Manuel - District Director of Health Services, Women and Social Action

H. Lumbo 11.24.2010
Xavier Gabriel - Extension for agriculture and agro-livestock

I. Mozambique Island, 11.24.2010
António Saul- District Administrator

J. Ilha de Moçambique, 11.24.2010
Alfredo Artur Matata- Mayor - Ex District Administrator