

## Section I: Identification and JP Status

### Environment Mainstreaming and Adaptation to Climate Change

#### Semester: 2-11

Country	Mozambique
Thematic Window	Environment and Climatic Change
MDGF Atlas Project	
Program title	Environment Mainstreaming and Adaptation to Climate Change
Report Number	
Reporting Period	2-11
Programme Duration	
Official Starting Date	
Participating UN Organizations	<ul style="list-style-type: none"><li>* FAO</li><li>* UN-HABITAT</li><li>* UNDP</li><li>* UNEP</li><li>* UNIDO</li><li>* WFP</li></ul>

#### Implementing Partners

- \* Civil Society Organisations, e.g. IUCN Rural (target) communities
- \* District government of Chicualacuala (SDAE District Service for Economic Activities (formally the department of agriculture)
- \* DNA (National directorate for water)
- \* Gaza Provincial Directorate of Energy
- \* INAM (National Meteorological Institute)
- \* INGC (National Disaster Management Institute)
- \* ME (Ministry of energy)
- \* MICOA (Ministry for the Coordination of Environmental Affairs)
- \* MINAG (Ministry of Agriculture)
- \* MOPH (Ministry of public works), incl.
- \* National Directorate of Renewable Energy
- \* SDPI District Service for Planning and Infrastructures)

### Budget Summary

#### Total Approved Budget

FAO	\$2,513,457.00
UNEP	\$1,338,527.00
UN-HABITAT	\$1,169,972.00
UNIDO	\$1,011,330.00
UNDP	\$694,051.00
WFP	\$272,663.00
<b>Total</b>	<b>\$7,000,000.00</b>

#### Total Amount of Transferred To Date

FAO	\$2,513,457.00
UNEP	\$1,338,527.00
UN-HABITAT	\$1,169,972.00
UNIDO	\$1,011,330.00
UNDP	\$694,051.00
WFP	\$272,663.00
<b>Total</b>	<b>\$7,000,000.00</b>

**Total Budget Committed To Date**

FAO	\$0.00
UNEP	\$0.00
UN-HABITAT	\$0.00
UNIDO	\$0.00
UNDP	\$0.00
WFP	\$0.00
<b>Total</b>	<b>\$0.00</b>

**Total Budget Disbursed To Date**

FAO	\$0.00
UNEP	\$0.00
UN-HABITAT	\$0.00
UNIDO	\$0.00
UNDP	\$0.00
WFP	\$0.00
<b>Total</b>	<b>\$0.00</b>

**Donors**

As you can understand, one of the Goals of the MDG-F is to generate interest and attract funding from other donors. In order to be able to report on this goal in 2010, we would require you to advise us if there has been any complementary financing provided for each programme as per following example:

Please use the same format as in the previous section (budget summary) to report figures (example 50,000.11) for fifty thousand US dollars and eleven cents

Type	Donor	Total	For 2010	For 2011	For 2012
Parallel	None	\$0.00	\$0.00	\$0.00	\$0.00
Cost Share	None	\$0.00	\$0.00	\$0.00	\$0.00
Counterpart	None	\$0.00	\$0.00	\$0.00	\$0.00

DEFINITIONS

- 1) PARALLEL FINANCING – refers to financing activities related to or complementary to the programme but whose funds are NOT channeled through UN agencies. Example: JAICA decides to finance 10 additional seminars to disseminate the objectives of the programme in additional communities.
- 2) COST SHARING – refers to financing that is channeled through one or more of the UN agencies executing a particular programme. Example: The Government of Italy gives UNESCO the equivalent of US \$ 200,000 to be spent on activities that expand the reach of planned activities and these funds are channeled through UNESCO.
- 3) COUNTERPART FUNDS - refers to funds provided by one or several government agencies (in kind or in cash) to expand the reach of the programme. These funds may or may not be channeled through a UN agency. Example: The Ministry of Water donates land to build a pilot 'village water treatment plant' The value of the contribution in kind or the amount of local currency contributed (if in cash) must be recalculated in US \$ and the resulting amount(s) is what is reported in the table above.

## Beneficiaries

Beneficiary type	Targetted	Reached	Category of beneficiary	Type of service or goods delivered
Farming families	0	2,000	Communities	Water Related Services/Provision/Infrastructure

## Section II: JP Progress

### 1 Narrative on progress, obstacles and contingency Measures

Please provide a brief overall assessment (1000 words) of the extent to which the joint programme components are progressing in relation to expected outcomes and outputs, as well as any measures taken for the sustainability of the joint programme during the reporting period. Please, provide examples if relevant. Try to describe facts avoiding interpretations or personal opinions

#### **Plases describe three main achievements that the joint programme has had in this reporting period (max 100 words)**

1. The JP has made significant gains in water development in Chicualacuala. In the past six months 4 new boreholes have been drilled and fitted with solar pumps and storage tanks. About 2,000 families now have access to safe water. A further 30 household level rainwater harvesting systems have been built and installed. Two communal rainwater harvesting systems have been completed at two schools.

2. Due to the acceleration in the pace of implementation and a steady improvement in coordination, the JP has gained the confidence and respect of the government at all levels. For the first time, the government is projecting the JP as their exemplary climate change adaptation project. This has been assisted by publicity of the JP in the newspapers and on the TV after a visit by and training for journalists.

3. A large increase in irrigated agricultural production by farmers assisted by the JP was recorded this semester. In the dry season last year about 57 tonnes of vegetable and other food crops were produced. This year, due to an expansion in the area under cultivation and better water management, 338 tonnes of diverse food crops were produced and (mostly)sold by Chicualacuala farmers participating in the JP.

#### **Progress in outcomes**

Outcome 1. Government, civil society, communities and other stakeholders informed, sensitized and empowered on environment and climate change issues

Through seminars, workshops, training courses and advocacy, the JP continues the process of sensitisation and capacity building of government staff and civil society groups in a wide range of aspects linked to environment and climate change. Civil society groups targeted include journalists who, after a visit to the project site in Chicualacuala, and a national seminar, reported the project on the television and in two national newspapers over a period of several weeks. Some of these journalists participated in the COP17 in Durban where, from experience and training gained they were able to more effectively report on the conference. Exchange visits to projects in another province provided an opportunity for Chicualacuala farmers and government staff to share experiences and learn more about REDD, community based natural resource management and conservation agriculture. The environmental awareness materials being produced and distributed have proven to be a simple and effective way of transmitting messages. The awarness materials produced are being distributed and shown to be a simple and effective way of transmitting messages.

Outcome 2. Government capacity at central and decentralized levels to implement existing environment policies strengthened

Risk mapping and the elaboration of district development profiles in 8 districts, technically supported by the JP and all based on the initial experience in Chicualacuala in 2010, have firmly integrated these exercises within district planning practices. This has assisted the INGC, with JP support, to mainstream environment and climate change within their 2011-2012 contingency plan.

### Outcome 3. Climate proofing methodology mainstreamed into government development plans, UN / donors' programming and local stakeholders' activities and investments

District Administrators and other senior government staff from 4 districts in the north of Gaza province actively participated in a national seminar on climate proofing development planning which provided them with the tools for elaborating plans based on a better understanding of climate change adaptation. The JP, through its partnership with government institutes (notably INGC) has made good progress in the identification of priority areas for climate proofing in the Limpopo river basin as part of the development of a strategy for eco-system strengthening.

### Outcome 4. Community coping mechanisms to climate change enhanced

Significant progress this semester in water development has provided safe, affordable, drinking water for hundreds of families. Good progress in the development of community based forest management has resulted in the increased valorisation and better protection of forest resources by Chicualacuala communities. An expansion of crop irrigation systems produced a large marketable excess of diverse food products that greatly increased the incomes of hundreds of families.

### Outcome 5. Communities' livelihood options diversified

The development of renewable energy (notably solar) in Chicualacuala provides power for the newly installed meteorological station and for water pumping from boreholes. An expansion of veterinary coverage through the training and equipping of community based animal health workers, together with support to the government veterinary services for vaccination campaigns has reduced animal mortality and increased production and off-take. Integrated livestock-crop farming pilot units that promote the recycling of nutrients have resulted in increased production and incomes for participating families.

## Progress in outputs

### 1.1 Environment priorities and indicators reflected in planning frameworks and budgets at district and community level:

The JP assisted the INGC to conduct an emergency response simulation exercise (floods) in Sofala (Buzi river basin) province that was widely reported by the national media. The JP has produced a paper entitled "Adaptation to Climate Change in Semi-Arid Environments: Experience and Lessons from Mozambique" that will be published in January 2012 by FAO. This publication will help the government and donors prioritise their options for climate change adaptation.

### 1.2 GIS-based data and maps on climate change vulnerability for risk areas

The new, automatic meteorological station in Chicualacuala, financed by the JP, is mounted and operational, sending climatic data directly to INAM in Maputo that is relayed back to Chicualacuala as part of a weather forecasting and early warning system. As part of the development of the District Integrated Water Resource Management Plan (IWRMP), a report has been produced that orientates this process. Training of 18 planners from various districts in the Limpopo River basin resulted in the elaboration of a training manual for similar exercises and a draft of an IWRMP for Chicualacuala.

### 1.3 Training programmes on disaster and climate change prediction, including interpretation of maps and application of monitoring data for early warning purposes

Joint training, was provided to political and technical decision makers, focusing on interpretation of risk mapping and monitoring data and uses of risk mapping and food security

information for planning process. Around 70 participants attended the training.

#### 1.4 Knowledge and experience sharing within the different groups (UN agencies and beneficiaries)

An exchange visit took place where 25 community leaders, farmers and government staff from Chicualacuala spend 10 days in Manica province where they visited various projects with a focus on community based management of natural resources. These included one project that processes and markets native medicinal plants, one carbon sequestration project financed through REDD, one community forest management project and one project that strongly promotes conservation agriculture.

#### 2.1: National Disaster Preparedness plan and other relevant plans revised/updated to include climate change and environment aspects

From experience gained in Chicualacuala, the JP has assisted INGC and SETSAN (the secretariat for food security and nutrition) to conduct risk mapping exercises and develop district development profiles in 8 of the 32 districts in the country classified (by INGC) as semi-arid and highly vulnerable to food insecurity. The JP also assisted INGC to integrate environment and climate change aspects into their contingency plan for 2011-2012.

#### 2.2 Early warning and communication system enhanced in the Gaza province:

The JP has already assisted the Chicualacuala to extend their coverage through the mounting of a higher antenna. This semester a tender was launched for a solar system to provide back-up power to the radio station to permit 24 hour per day transmission. Currently, radio broadcasts are limited to 8 hours per day when the district generator is switched on. The solar system will be installed in the next reporting period.

#### 2.3 Authorities, civil society and other relevant actors trained to incorporate and report on environmental and climate change risk events:

A national climate change workshop designed to inform journalists took place in Maputo. The event united journalists from community (district), provincial and national radio together with subject matter specialists from INGC, INAM and MICOA. In a separate activity, a small group of journalists (4) visited the JP in Chicualacuala to learn more about climate change adaptation activities and how to report on them. As a result, the JP received national TV and national newspaper coverage with several broadcasts over a period of two weeks. These journalists participated in the COP17 in Durban from where they reported on the conference for their respective newspapers and TV channel.

Elaboration of a (draft) manual to orientate the inclusion of environmental issues in the primary school curriculum. This manual was tested in the 3 administrative post in Chicualacuala.

700 copies of the video "The Change" were reproduced and will be distributed by MICOA when they have the complete material for the kits for environmental educators.

#### 3.1 Tools for climate proofing of risk zones in the Limpopo River Basin developed:

Through the collaboration with INGC and University of Cape Town a report was produced entitled "Understanding the Socio-Economic Impacts of Climate Change and the Development of a Climate Proofing Strategy in the Limpopo river basin, Mozambique". This work contributes to the identification of the priority areas for climate proofing in the Limpopo river basin and of priority activities and initiatives that will form part of the next phase of the project. It is expected that, when completed, this work will lead to the

strengthening of eco-system resilience in the basin through encouraging more sustainable use of natural and other productive resources.

### 3.2 Assessment of climate proofing approaches carried out

The JP is carrying out on-going climate proofing activities designed to strengthen eco-systems. These include the promotion of agro-forestry in which over 200 families are involved; the implementation of a community based forestry management plan in which 11 communities are involved, water harvesting and the promotion of conservation and organic agriculture in 6 communities.

### 3.3 Stakeholders trained on climate proofing

In coordination with UNEP in Kenya, a national workshop on climate proofing in development planning took place over three days in July. It was opened by the Vice-Minister of MICOA and attended by the Spanish Ambassador and the Representative of the UN in Mozambique. The participants were largely senior level government planning and policy makers together with academics, subject matter specialists and representatives of the UN and government partners in this JP.

### 4.1 Inventory of strategies and coping mechanisms currently in use by communities and in the Limpopo River Basin

In coordination with govt. partners the JP assists farmers to broaden their coping strategies. Activities in course include:

Rainwater harvesting: where 75 out of a planned 100 household systems and 2 of 4 community systems are installed and functioning in the district capital town, Eduardo Mondlane, and Mapai town;

Irrigated agriculture: where 4 communities assisted by the JP to install irrigation systems on 49 hectares of land produced and sold over 337 tonnes of food crops between July and December 2011.

In collaboration with the National Institute for Agriculture Research (IIAM) demonstration plots in agro-forestry and conservation agriculture are on-going as well as training in dairy (milk and cheese) production and improved feeding of cattle.

The network of community animal health workers (CAHW's) has been expanded with the training and equipping of another 15 persons from 12 communities. The JP has now trained 36 CAHW's who, between them treated 25,821 animals in 2011 for and against various diseases.

### 4.2 Community based natural forest resource management system established:

Eleven community forest management committees are now legally registered, each with a bank account and each with at least one trained and equipped forest guard. In these communities a forest management plan is in force. Delimitation and demarcation of land in 5 of these communities took place this semester as part of the plan to obtain land use rights (DUAT) for the respective communities.

Training in the harvest and processing of honey was given to the 60 beekeepers trained and equipped by the JP. The first full harvest of honey was scheduled to take place in

December 2011 but the JP delayed in the distribution of buckets and other equipment. This has now been delivered and the harvest is now taking place. Meanwhile, many of the beekeepers have harvested small quantities of honey over the past few months for their own consumption and for sale. Monitoring conducted in December revealed that only 35 to 40% of the 300 hives are currently occupied by bees (down from over 50% in June 2011). This is principally because of the long dry spell from May to December which caused the bees to abandon some of the hives and, in some cases, to poor management of the hives.

#### 4.3 Territorial planning mechanisms at community level introduced:

The Land Use Plan that has been developed for Chicualacuala District is an important and strategic document that will guide the Government and all interested parties in the way they should use the land towards sustainable development of the district. The process was very dynamic (public consultations, field visits, community participatory meetings) and involved governmental (National, provincial and District) and local authorities, communities, private sector, NGO's and some civil society organizations. An important exercise of delimitation and physical definition of nine (9) District localities of Chicualacuala was also developed in line with the District Land Use Plan by a multidisciplinary team led by the Ministry of State Administration (MAE). During the second public consultation the participants raised some minor issues that were taken in consideration by the team. The plan was improved and was again submitted to the local authorities for final approval.

In collaboration with INGC, the JP is building a Centre for Multiple Use Resources (CERUM) where INGC will test and demonstrate a range of technologies adapted for use in semi-arid zones. The land (6 hectares) ceded by the district government has been securely fenced in. A store for building materials has been erected on site, building materials have been brought from Chokwe and Maputo and building of the administrative block is underway.

#### 4.4 Agro forestry practices introduced and applied at the community level:

Agro-forestry practices continue in 4 communities as well as in demonstration plots set up by IIAM in a 5th community. The systems preferred by farmers are the planting of fruit trees around their houses and alley cropping, sowing various crops between rows of fruit or fodder trees established in the association farm plots. Given the serious water constraint in Chicualacuala and the lack of fencing of agricultural fields, the establishment of trees for agro-forestry practices has proved very difficult. It has had more success where land is fenced (with project assistance), close to the Limpopo river. Native species are very slow growing and farmers do not place any value on them, preferring fruit trees such as citrus or mango, cashew trees and fodder trees such as leucana leucocephala. Only one of the 3 community forestry nurseries established by the project is operating, in Mahatlane village (in collaboration with IIAM and the national NGO, UNAC). This year it has produced and distributed (to community members) 5562 saplings, mainly cashew and moringa with a small amount (432) of chanfuta (a native specie). The other two have been abandoned by the respective communities who say (correctly) that there is no market for the trees produced and thus no incentive to continue producing them. Two small cashew tree orchards have been established with project assistance and these are showing signs of impact as the trees (108 + 214) are established and growing. The larger of the orchards has been fenced by the (Ndombe) community with barbed wire (supplied by the JP) to protect the young trees from invasion by cattle and goats. Another orchard is planned for Mahatlane in this current rainy season of 2011-2012.

#### 4.5 Multipurpose integrated water resource management systems created:

The technical problems encountered in the last semester when drilling boreholes have been overcome. In this semester, the JP has successfully drilled 5 new boreholes with depths ranging between 108 and 155 metres. At each site plentiful, good quality water was found. Four of these boreholes have been equipped with solar pumping systems and 10,000 litre storage tanks mounted on raised platforms. More than 1,000 families that previously had great difficulties obtaining safe drinking water now have easy access to an affordable source of this most precious liquid.

This semester a new irrigated field has been developed with JP support in the community of Chissapa, close to the Limpopo river. The field, 27 hectares, was fenced by the community with barbed wire supplied by the JP. Irrigation is by flooding the field with water pumped from the Limpopo river with a diesel pump supplied by the JP. On the 5.8 hectares that the community (individual plots) managed to cultivate in this semester the 35 members currently working the land produced and sold 55 tonnes of produce, mainly tomatoes, potatoes, various types of cabbage and maize .

75 of the planned 100 household rainwater harvesting systems have been completed and are working. 25 of these have been built in this reporting period. Additionally, 2 communal tanks sited at 2 schools in Eduardo Mondlane town, each of 90,000 litre capacity, reported as being under construction in the previous monitoring report, and now finished. In the time remaining the JP is obliged to complete the remaining 25 individual and 2 community tanks.

After a training course in the development of an integrated water resource management plan (IWRMP) provided for 18 district planners from various districts in the Limpopo river basin, a training guide for this type of exercise (the first of its kind in Mozambique) has been elaborated and a draft IWRMP developed for Chicualacuala which will be finalised over the next few months.

The JP still hopes to enlarge at least two natural water catchments in Chicualacuala to provide water over a longer period of time for people and animals. This work necessitates heavy earth moving machines and is thus expensive. It is not a budgeted activity but should have been included in project design given the critical importance of water in district development. Negotiations are underway with a road building crew working in Chicualacuala to try to get an acceptable price for the works.

#### 4.6 Sustainable conservation agriculture practices introduced and efficiency in small scale irrigation systems improved:

Conservation agriculture (CA) is being promoted through demonstrations in farmers' fields in two dry land systems and one irrigable area through the collaboration between the JP and IIAM. The most acceptable components of CA (for farmers) have been the maintenance of soil cover with mulch or animal manure and mixed cropping with cereals and legumes. No till or minimum till systems have met with more resistance due to the widespread use of animal traction for ploughing which earns money for the many practitioners. CA is also being promoted with some success in the 4 communities in which the JP has assisted setting up irrigated production units. Here the plots are smaller and often cultivated by hand. Some farmers accept minimum tillage in their plots as it requires less labour. The use of animal manure and mulch has been adopted by the majority of the 200 or so farmers working their plots in the 4 irrigated units.

#### 4.7 Prospects of biogas generation and composting using waste manure as coping mechanisms to climate variability determined:

A second training course in renewable energies was held this semester. 30 persons participated, 13 women and 17 men including district government staff and community leaders. The training focused on the use of improved stoves, including solar stoves and on more efficient ways of making charcoal.

Solar water pumping systems are now mounted and working at 7 sites, an increase of 4 this semester. The original target was 8 but it is now expected that at least 9 such systems will be supplying water to people, animals and for irrigation by the end of the project.

#### 5.1 Options for livelihood diversification identified:

This output was realised in 2010 with the completion of a study that identified various diversification options. The JP has been focusing on some of these i.e, water points for

animals (see section 5.3), purchase and distribution of fruit trees and the promotion of meat drying technologies (see section 5.4).

#### 5.2 Inventory and feasibility assessment of potential renewable energy sources carried out:

Construction of the bio-gas digester plant in the village of Mepuza started in the last reporting period is nearing completion. The digester itself is ready. What is now lacking is a corral for the animals that will supply manure for making the bio-gas and the installation of the generator which will use the gas to produce electricity (delayed in Customs in Mozambique). When finished, the bio-digester will produce gas to power a generator which will provide electricity to small rural workshops, the school and health post in Mepuza. This pilot project will be the first of its kind and scale in Mozambique. It is expected that the system will become operational within the next few months. At the Mapai slaughter house where the second bio-gas digester will be built, the site has been selected but work has not yet begun. This unit will eventually bio digest the wastes from the slaughter house to provide lighting and hot water for the building.

#### 5.3 Animal husbandry grazing and veterinary service coverage improved:

The 15 community animal health workers trained in June and July of this year have received their veterinary kits and are working in their respective 12 villages treating the animals of members of the communities. Monitoring information updated in early December shows that the majority of the 36 promotores trained by the JP and the government veterinary services are working, and that between them they treated 25,821 animals, mostly cattle, in 2011. There is no doubt that mortality and morbidity of animals has been significantly reduced as a result of the CAHW initiative.

Further, on-the-job training in animal production and health was given to 221 livestock keepers in 9 communities during this reporting period.

The JP supported the government veterinary service (supplying fuel and ice, paying field subsidies) in the annual vaccination campaign against anthrax, lumpy skin disease, foot and mouth disease and rabies (dogs) in which were vaccinated over 31,000 animals, over 90% of the district cattle herd. This is considered to be an excellent coverage record in such an isolated district with a widely dispersed human and animal population.

The JP supplied the livestock services with 15,000 doses of vaccine for the vaccination campaign (in November/December) against Newcastle disease in chickens and assisted in the distribution of the vaccine to the CAHW's and other trained community vaccinators. The results of the campaign have not yet been released by the livestock services.

This semester, the JP supplied 18 young pigs to 16 members of the Chissapa community as part of the integrated agro-livestock production unit being developed there. Meanwhile, in Ndombe and Mapuvule communities, where pigs have already been supplied monitoring results from early December indicate a healthy growth in number. For example in Mapuvule, where 14 piglets were supplied to 14 community members in March 2011, the current number of pigs is now 46. Of the total of 38 community members that have so far received piglets from the JP, 23 are women and 15 are men. Each person is expected to hand-on at least one female pig to another community member to increase the impact of the intervention.

A contract has been signed with a local builder and construction of another 9 livestock treatment corridors has begun in Chicualacuala. The sites, in 9 villages, were selected by the veterinary services as being those villages where vaccination and treatment facilities are very poor and where animal numbers are relatively high.

A contract has also been signed for the construction of 5 livestock drinking troughs at the sites of 5 of the boreholes. In total it is expected that 7 livestock drinking troughs will be built before the end of the project. This will greatly assist the development of the livestock industry where one of the principal constraints is the lack of water.

#### 5.4 Agro-processing and marketing activities developed:

Training was given to 40 members of the Mapuvule community in the processing of fish harvested from the fish ponds built by the JP in this community. Methods of processing including smoking, sun drying and salting. The communities of Ndombe and Mapuvule have harvested fish from the ponds several times in the past year but the yield has always been disappointing because of poor feeding management of the fish by the communities. The Ndombe ponds are dry at present because of a breakdown of the diesel pump that supplies water to them and also to the community farm. It is doubtful if fish farming in Ndombe will be sustainable due to the costs of water pumping to replenish the tanks. In Mapuvule, the community are still persevering with this important livelihood diversification activity.

This semester, the JP has rehabilitated the slaughter house in Eduardo Mondlane town which was closed down a year ago by the veterinary services on sanitary grounds. The rehabilitation is complete and management of the slaughter house will be put out to tender by the district government shortly. Meanwhile, the construction of the new slaughter house in Mapai is still not complete due to delays on behalf of the builder and some modifications requested by the JP. The work is now delayed by 14 months despite constant pressure on the builder to finish the work. The JP has not so far enacted the penalty clause in his contract because to do so would probably result in the abandonment of the work. The slaughter house has yet to be equipped and its management put out to tender.

An LoA is being finalised with the IIAM to provide training to selected Chicualacuala livestock keepers in the production of biltong (dried meat). This activity was planned for October but was delayed for contractual reasons.

#### **Measures taken for the sustainability of the joint programme**

Planning of annual activities is done in partnership with the government and to the extent possible, government technical staff accompany JP staff to the field to oversee implementation. Quarterly PMC meetings provide the main forum for discussion on progress. At these meetings, questions of sustainability and of ensuring the maximum impact are addressed and decisions taken on how best to approach various activities. A draft exit strategy has been developed based on the main project components which is designed to ensure the sustainability of the initiatives which will continue after the JP ends. Community involvement is encouraged in all field based activities to promote a stronger sense of ownership. On-going training and support to government partners and rural communities is providing the skills and experience necessary to continuation of the most important activities after the JP ends.

**Are there difficulties in the implementation?**

**What are the causes of these difficulties?**

*To the extent possible, implementation problems encountered in the early stages of the JP, and reported on in previous reports, have been addressed. Early problems linked to coordination with government have improved substantially in the past year since the JP accelerated the pace of field activity implementation.*

*Some of the major JP design flaws which, among other things, led to unrealistic expectations of what would be possible within the timeframe of this JP have been identified and documented and hopefully will be taken into account when designing future programmes.*

**Briefly describe the current difficulties the Joint Programme is facing**

The biggest current challenges are:

1. To successfully complete all scheduled and budgeted activities within the timeframe and
2. to ensure a smooth and well coordinated hand-over of activities, works and equipment to the government and rural communities at the end of the programme.

**Briefly describe the current external difficulties that delay implementation**

The external factors which make implementation difficult are those reported on in previous reports i.e the long distances that must be traveled when implementing field activities, the high degree of isolation of the target district, the widespread dispersal of the rural population, poor communication and roads.

**Explain the actions that are or will be taken to eliminate or mitigate the difficulties**

Mitigation of these difficulties is addressed through the cultivation of a close working relationship with the government, particularly at the district level where field activities take place. A number of management committees have been created and trained in the rural communities (forests, water, agriculture and irrigation) through which the JP and government counterparts coordinate their interventions.

## 2 Inter-Agency Coordination and Delivering as One

**Is the joint programme still in line with the UNDAF?**

Yes true  
No false

**If not, does the joint programme fit the national strategies?**

Yes  
No

### **What types of coordination mechanisms**

Coordination mechanisms include a quarterly PMC meeting which brings together UN and government partner staff to discuss progress, debate solutions to setbacks and plan for the next three months.

The above mentioned management committees, including those on water and forests, help coordinate the activities of the UN agencies working in these fields.

Meetings between UN agencies, or between specific agencies and government partners, take place as and when necessary to coordinate activities.

A significant part of JP coordination is done by email and/or by telephone.

**Please provide the values for each category of the indicator table below**

Indicators	Baseline	Current Value	Means of verification	Collection methods
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Number of managerial practices (financial, procurement, etc) implemented jointly by the UN implementing agencies for MDF-F JPs	0	more than 10	<ol style="list-style-type: none"> <li>1. Inspect JP reports which are compiled with financial inputs from all agencies</li> <li>2. Building of the CERUM which is a multi-agency activity</li> <li>3. Integrated fish farming activities</li> <li>4. Joint procurement of meteorological equipment</li> </ol>	<ol style="list-style-type: none"> <li>1. Reports available on-line or from JP mant. team</li> <li>2. Inspect accounts of various agencies involved</li> <li>3. Site visit, accounts of UNEP and FAO</li> <li>4. FAO/UNEP accounts</li> </ol>
Number of joint analytical work (studies, diagnostic) undertaken jointly by UN implementing agencies for MDG-F JPs	0	more than 20	<ol style="list-style-type: none"> <li>1. Availability of study reports</li> <li>2. Joint training course reports</li> <li>3. Exchange visit reports</li> </ol>	<ol style="list-style-type: none"> <li>1. Request reports from management team or govt. partners</li> <li>2. Request mant. team or respective lead agency</li> <li>3. Request mant. team</li> </ol>
Number of joint missions undertaken jointly by UN implementing agencies for MDG-F JPs	0	more than 20	Interviews with JP coordinator UN agency focal point or government partner staff	Site visits, interviews with relevant actors

### 3 Development Effectiveness: Paris Declaration and Accra Agenda for Action

#### Are Government and other national implementation partners involved in the implementation of activities and the delivery of outputs?

Not Involved      false  
 Slightly involved      false  
 Fairly involved      false  
 Fully involved      true

#### In what kind of decisions and activities is the government involved?

Policy/decision making  
Management: service provision  
Management: other, specify

*The government partners are involved in JP decision making on the planning, implementation and monitoring of activities. They are responsible for choosing sites, for example for boreholes, water pumping systems, cattle treatment facilities and livestock drinking troughs. They choose the beneficiaries, e.g. for the installation of household rainwater harvesting systems. They assist in the identification of communities which they wish the JP to assist. They chair the PMC meetings and the TAC (Technical Advisory Committee on water) meetings.*

*They provide (limited) extension services to target farmers as well as monitoring of public works being built by the JP such as the slaughter house, the boreholes and water pumping systems, rainwater harvesting systems.*

*They participate, as far as is practicable, in the implementation of JP activities and in training courses and meetings given by the JP. They set up meetings in the target communities, help organise training workshops, take care of government administrative issues linked to JP activity implementation.*

#### **Who leads and/or chair the PMC?**

Initially the PMC was chaired by the RC or his representative, usually the Representative of FAO as the lead agency. However, this changed in 2011 when the focal point of the lead Government partner, MICOA, assumed the chairmanship of the meetings.

#### **Number of meetings with PMC chair**

7 chaired by the RC or his representative and 3 chaired by the MICOA focal point

#### **Is civil society involved in the implementation of activities and the delivery of outputs?**

Not involved        false  
Slightly involved    false  
Fairly involved     true  
Fully involved       false

#### **In what kind of decisions and activities is the civil society involved?**

Policy/decision making  
Management: service provision

*IUCN is sub-contracted to the JP to conduct some of the water related activities, notably installation of some of the rainwater harvesting systems and assisting the government in the elaboration of a integrated water resource management plan (IWRMP) through training, the development of a training manual and the drafting of a IWRMP for Chicualacuala*

*UNAC, the national NGO, whose project is now closing, actively assisted in the management of the forestry nursery in Mahatlane, the choice of beneficiaries, the selection of*

*community livestock workers later trained by the JP*

**Are the citizens involved in the implementation of activities and the delivery of outputs?**

Not involved        false  
Slightly involved    false  
Fairly involved     false  
Fully involved       true

**In what kind of decisions and activities are the citizens involved?**

Management: other, specify

*The citizens are mainly the rural families with which the JP and its government partners works. They are fully involved in the planning and execution of the various activities being promoted by the JP in their respective communities. They participate in training workshops, field days and exchange visits. They organise visits by JP staff and visitors. Through village leaders and through community management committees, established with project support, they are also involved in the maintenance and security of the various infrastructures that the JP has established in their communities. They also play a key role in conflict and problem resolution at community level. The JP is active in at least 15 communities in total.*

**Where is the joint programme management unit seated?**

National Government

*The JP management unit is seated at MICOA in Maputo. Meanwhile the JP maintains field offices in Chokwe and Chicualacuala to facilitate field work.*

**Current situation**

As above

## 4 Communication and Advocacy

**Has the JP articulated an advocacy & communication strategy that helps advance its policy objectives and development outcomes?**

Yes        false  
No        true

**Please provide a brief explanation of the objectives, key elements and target audience of this strategy**

Although a written strategy does not exist, advocacy and communication activities are an integral part of programme implementation. For example, this semester training and a field visit for a total of over 30 journalists, some of which reported on the project through their respective media channels, effectively disseminated cc adaptation activities taking place in Chicualacuala to a national audience. Some of these journalists later participated in COP17 from where they were able to advocate on behalf of this type of JP in Mozambique and also to report more effectively on cc events. A national climate proofing workshop this semester united senior government policy makers with subject matter specialists and UN partners agencies in debate over climate change adaptation and the development of a climate proofing strategy for the Limpopo river basin. The development

and dissemination of videos and other environment and cc materials both advocates on behalf of the rural communities being most affected by cc and effectively communicates the impact of cc on livelihoods and on the natural resource base on which these livelihoods depend.

The FAO publication on lesson learned during this JP will disseminate to a wide audience of donors, policy makers and cc project practitioners what has worked most effectively and what should be scaled up in a follow up phase.

**What concrete gains are the advocacy and communication efforts outlined in the JP and/or national strategy contributing towards achieving?**

Increased awareness on MDG related issues amongst citizens and governments

Increased dialogue among citizens, civil society, local national government in relation to development policy and practice

Media outreach and advocacy

*The numerous training workshops and seminars that the JP has organised throughout this JP have significantly raised awareness on environment and cc amongst citizens and government at all levels. This is part of a on-going process of awareness raising on environmental issues being promoted by the government (eg. MICOA and INGC), mainly disseminated through the social media, and by projects such as the JP.*

*Climate change and its environmental impact are steadily becoming cross-cutting themes in development planning alongside gender and HIV/AIDS as a result of initiatives which include this JP.*

*The above mentioned training and field visit for journalists resulted in national coverage of the JP within the context of the effects of cc in semi-arid environments.*

**What is the number and type of partnerships that have been established amongst different sectors of society to promote the achievement of the MDGs and related goals?**

Faith-based organizations	0
Social networks/coalitions	0
Local citizen groups	15
Private sector	0
Academic institutions	2
Media groups and journalist	30
Other	2

**What outreach activities do the programme implement to ensure that local citizens have adequate access to information on the programme and opportunities to actively participate?**

Use of local communication mediums such radio, theatre groups, newspapers



## Capacity building/trainings

*The workshop and field visit for journalists reported above resulted in widespread dissemination of information on the JP.*

*On-going training and capacity building of government staff and rural communities provides the knowledge and skills necessary to participate more actively, both in debates on cc and in the planning and implementation of cc adaptation activities.*

## **Section III: Millenium Development Goals**

### **Millenium Development Goals**

#### **Additional Narrative Comments**

**Please provide any relevant information and contributions of the programme to de MDGs, whether at national or local level**

At the national level, the JP, through promoting increased food production and the provision of better access to safe water for many families in Chicualacuala has contributed at the local level to MDG Goal 1: Eradicate extreme poverty and hunger

Working with MICOA to mainstream environment in the junior school curriculum at all levels, the JP has contributed to advancements towards the realization of MDG Goal 7. Ensure environmental sustainability.

**Please provide other comments you would like to communicate to the MDG-F Secretariat**

In spite of some of the constraints faced in its implementation, the general opinion seems to be that the “Delivering as One UN” at country level is still a conceptually sound and viable option in addressing complex environmental and climate change issues which require a cross-sectoral approach, collaboration and harmonization between agencies. However, it should be designed so that each agency has clearly delineated implementation tasks and responsibilities, without impinging on others. A single procurement process would greatly reduce inefficiencies brought about by each agency conducting its own procurement, particularly when some agencies have to conduct international tenders, while other are obliged to conduct national tenders.

It is critical that there is full involvement and buy-in of the intended beneficiaries and local government leadership from day one of a JP. Project design should allow sufficient time to engage with local communities and stakeholders in order to ensure an understanding of the expected benefits of the programme.

In hindsight, there is general consensus that it would have been more appropriate and efficient in both implementation and coordination to have a Programme Coordinator for the whole JP, with his/her own separate budget for coordinating the JP activities amongst the UN agencies and national partners; as well as an FAO (lead agency) focal point with a separate budget for coordinating and implementing the activities at the district level.

## Section IV: General Thematic Indicators

### 1 Environmental and Climate Change policy development and mainstreaming

#### 1.1 Number of sectors or mainstreaming laws, policies or plans supported by the joint programme

##### 1.1.1 On Environmental Management

###### Policies

National	1
Local	0

###### Laws

National	0
Local	0

###### Plans

National	2
Local	3

##### 1.1.2 On Climate Change

###### Policies

National	1
Local	0

###### Laws

National	0
Local	0

**Plan**

National 2

Local 3

**1.2 Please briefly provide some contextual information on the law, policy or plan and the country/municipality where it is (or will be) implemented**

The policy document in whose formulation then JP assisted is the Second phase of the Strategy for Food Security (ESAN 11) It is being implemented nationally.

The two national plans are the annual contingency prepared by INGC with JP support which is prepared in the later part of each year for the following year and the Annual Plan for Food Security and Nutrition (PASAN)

The JP also provides assistance to the Secretariat for Food Security and nutrition (SETSAN) to conduct a vulnerability analysis (2 or 3 times per year) and to develop district development profiles.

The local plans, at the district level with which the JP provides assistance are the District Strategic Development Plan (PEDD) which was completed in 2010, the development of an integrated water resource management plan (in course) and a district land use planning plan (under final review)

**1.3 Sector in which the law(s), policy(ies) or plan(s) is/are focused**

Water management  
Sanitation  
Sustainable management of natural resources  
Climate change: adaptation

**Comments**

**1.4 Number of citizens and/or institutions that the law(s), policy(ies) or plan(s) directly affects**

All the public management and legal/institutional arrangements serve to the whole nation. Therefore all the efforts within the Joint Programme on laws, strategies, policies and plans will directly affect the whole population of the Country

**Citizens**

Total	20,000,000
Urban	8,000,000
Rural	12,000,000

**National Public Institutions**

Total	12
Urban	11
Rural	1

**Local Public Institutions**

Total	2
Urban	1
Rural	1

**Private Sector Institutions**

Total	Not known
Urban	
Rural	

**1.5 Government budget allocated to environmental issues before the implementation of the Joint Programme**

National Budget      Not known

Total Local Budget(s)      Not known

**Comments**

It is not possible to get this information because environmental issues are addressed by several ministries and government institutes (MINAG, MICOA, INGC, INAM)

**1.6 % variation in government budget allocated to environmental policies or programmes****National Budget**

% Overall Not known  
% Triggered by the joint programme Not known

**Local Budget**

% Overall Not known  
% Triggered by the Joint Programme Not known

**Comments**

**1.7 Government budget allocated to Climate Change before the implementation of the Joint Programme**

National budget Not known

Total Local Budget(s) Not known

**Comments**

It is not possible to be exact on this but the amount was very small. There is no doubt that funding for environment and climate change has increased markedly since the beginning of this project. Much of this funding comes from international donors.

**1.8 % variation in government budget allocated to Climate Change from the beginning of the Joint programme to present time**

**National Budget**

% Overall Not known  
% Triggered by the Joint Programme Not known

**Local Budget**

% Overall Not known  
% Triggered by the Joint Programme Not known

**Comments**

## 2 Institutional capacities for environmental management developed and civil society participation increased

### 2.1 Number of km2 of land newly managed by a natural resource plan supported by the Joint Programme

Total of the area managed in Km2            700

#### By habitat (Km2)

Tropical forest	400
Temperature forest	0
Savannah	200
Shrub land	
Grassland	70
Wetlands	
Rocky areas	
Desert	
Sea/oceans	
Artificial terrestrial	30

### 2.2 Number of institutions, civil servants and citizens trained by the JP to take informed decisions on environmental issues (excluding climate change)

#### Public institutions

Total            12

#### Private Sector Institutions

Total            Not known

#### NGO/CBO

Total            16

#### Civil Servants

Total            Over 200, some have received more than one training  
 Women            80

Men 120

**Citizens**

Total About 1500

Women 750

Men 750

**2.3 Number of citizens supported by the JP that have organised themselves to effectively participate in natural resource management initiatives**

Total Over 2000 families

Women 1100

Men 900

Ethnic groups 0

**2.4 Number of successful environmental service payment mechanisms that have been promoted by the JP**

Total N/A

No. of beneficiaries

**Sectors of application**

**Financing source**

**2.5 Has the JP had an impact on the development of national and local policies or regulations that recognize schemes of Payment for Ecosystem Services as an environmental management tool, How?**

No

### 3 Climate change adaptation and mitigation and development of institutional capacities

#### 3.1 Number of Km<sup>2</sup> and type of habitat covered by mechanisms and/or actions to adapt to climate change (implemented with the support of the joint programme)

The geographical unit that can be used for this question is "River Basin" in the context of MDGF 1680 Joint Programme, and the surface area of Seyhan River Basin is 20,600 km<sup>2</sup>

Tropical Forest	400
Temperature Forest	
Savannah	200
Shrub land	
Grassland	70
Wetlands	
Rocky Areas	
Desert	
Artificial terrestrial (pastoral land, arable land, etc.)	30

#### 3.2 Adaptation measures supported by JP that are addressing the following climate change issues

Land degradation  
Soil fertility decrease  
Change in native species dynamics  
Wildfire  
Droughtm Storms/flooding  
Alteration of rain patterns

#### 3.3 Based on available data, what kind of improvements on the population's wellbeing have been achieved through JP supported adaptation measures?

Vulnerability  
Improved livelihoods

### 3.4 Number of individuals and institutions with improved capacities to adapt to climate change or mitigate it

Adaptation

#### Public institutions

Total 12

#### Private Sector Institutions

Total Not known

#### Civil Servants

Total Over 200

Women 80

Men 120

#### Citizens

Total About 1500 families

Women 750

Men 750

### 3.5 Interventions funded by the JP to improve capacities of individuals and institutions to adapt to Climate Change or mitigate it

Adaptation

Capacity building

Equipment

Knowledge transfer

### 3.6 Number of clean development mechanism projects registered to mitigate climate change

CO2 emissions captured through conservation	N/A	
CO2 emission reduction through the use of renewable energies		N/A
CO2 emission reduction through the use of clean technologies		N/A