

Mahabari

The ECDD project newsletter

Issue 1: 2010 round-up



Engagement Communautaire
pour le Développement Durable

Komori ya leo na maso

Overview of the year

Welcome to the first ECDD project newsletter. 2010 was a busy year for us in the Comoros, as we expanded and enlarged on the activities developed in the first year of the project.

The major event of the year was the signing of a 750,000 euro funding agreement with the French Development Agency at the beginning of March, which completed the project's financing until the end of 2012. The funding is aimed in particular at supporting the expansion of agricultural and agro-forestry innovations, and has helped the project reach nearly 500 farmers during 2010 (see page 2).

Meanwhile the ecological team has been trekking through the highlands of the three islands, collecting data towards hitting their first major targets: the production of initial land cover and species distribution maps (see page 3). These key conservation tools for the Comoros will be published midway through 2011.

2010 also saw developments in project communications, with the arrival of Kitty Brayne in February as Communications and Outreach Officer for the project. One of her major tasks has been to evaluate project communications to date at the local, national and international level and produce a strategy for developing this important component of our work.

The team has continued to grow and is



The ECDD team at the FDA funding ceremony

now at 20 people – a bit of a squeeze in our office! In particular we welcomed Dr Saïdo, our local coordinator with over 30 years' experience working on agricultural and livestock support in the Comoros, Madagascar and West Africa, and Joris Backaert, our Head of Agricultural Development, who comes with over ten years of experience in East and Central Africa.

The challenge over the next year will be to engage more farmers in priority highland areas adjacent to or intruding on the remaining forest as we look to develop our model of integrated land management. To achieve this we will be focusing efforts on three water catchment areas above the villages of Nindri, Ouzini and Outs. Participatory mapping will be used to identify zones requiring different support and management.

We look forward to reporting on progress in the next newsletter in six months time.

Hugh Doulton
Project Coordinator

Building our web presence

A brand new project micro-site detailing our approach to conservation and natural resource management went online this year on the BCSF pages at www.bcsf.org.uk/comoros.

Members of the ECDD team also regularly contribute to the popular Durrell field blog, visit: <http://blog.durrell.org> to find out what we're up to.

2010 in numbers:

43 sites surveyed in wet and dry seasons for reptile, butterfly, bird and mammal biodiversity as well as habitat quality

201,759 tree cuttings planted as erosion breaks in fields

476 fields under sustainable management (see page 2)

23 food crop demonstration plots created (see page 2)

72 people supported in market gardening and chicken farming as alternative livelihoods

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British Conservation
& Science Foundation





Over 200,000 tree cuttings planted to halt erosion

This year has seen major advances in a key component of the landscape management model the project is developing: sustainable agricultural intensification in the uplands. The aim of these interventions is to reverse the decline in soil fertility and increase productivity in existing fields, and thus reduce pressure on the forests for new agricultural land. The techniques, which involve planting tree cuttings across slopes as erosion breaks, and terracing, will also contribute to improved water management through soil stabilisation.

The project offers support for farmers in targeted zones, chosen for the level of erosion, or their importance for water catchment areas. The first stage is to improve the structure of the field in order to reduce erosion and nutrient run-off, before working on increasing the fertility of the soil through adding manure and compost.

The ECDD 2010-11 season has proven particularly successful at getting new people on board due to a new method of training and supporting farmers.

Project agricultural technicians provide in-depth training to selected local farmers who are then responsible for supporting land owners in the targeted zones to put in place these techniques and organising the distribution of materials needed. This 'relay' method has allowed a much greater number of people to benefit from project support.



A farmer from Outsa after planting erosion breaks in his field

Planning for water protection



The Nindri water management group and project staff after the workshop

In the project's initial analysis phase communities identified diminishing water flows as a major problem, and something they wished to tackle through collective action. Since then, water management committees have formed in three villages: Nindri, Ouzini and Outsa.

Collective natural resource management is a long term process, and not without its difficulties, especially in the

Anjouan, where almost all the land is owned and farmed in some way, land titles are rare, and there is little local legislation or governance of land use.

During September – November this year, the project team facilitated workshops with each management group, to consolidate the approach to water protection and to create an action plan for the following six months. Activities planned and underway include a participative mapping and zoning process, engaging more farmers in catchment zones in sustainable farming methods, tree planting in water catchment zones, and improvements and maintenance of water infrastructure.

Follow up workshops will be organised to evaluate the first six months and plan the next stages of the work in March–April.



Demonstrating better yields

Bananas, cassava, taro and sweet potatoes are the main staple foods of the Comoros. This year the project started supporting villagers to improve cultivation techniques and access better varieties of these important crops. Improved yields in existing fields should reduce the need to plant these crops higher up the mountains.

The project's technicians have helped 23 farmers put in place crop associations and rotations, treat crops against pests and use natural fertilisers, as well as access better varieties of crops. These fields are used as demonstration tools to get more people on board.

The ECDD project is run by Bristol Conservation & Science Foundation (an operating unit of Bristol, Clifton & West of England Zoological Society Ltd.) in partnership with Durrell Wildlife Conservation Trust, the Government of the Union of the Comoros and the Administration of the Island of Anjouan.

External funding comes from the UK government through the Darwin Initiative scheme, the French Development Agency and the Global Environment Facility (through the PoWPA project) amongst others.

The project works with consultants from the International Development Department of the University of East Anglia, the International Union for the Conservation of Nature and Cranfield University.



Bristol Conservation & Science Foundation





Putting Comorian landscapes on the map



Ecological technician Ishaka Saïd taking GPS points for ground-truthing in Grande Comore

Detailed and accurate land cover maps are an important tool for conservation as they are essential for assessing the extent of forest cover, mapping species distributions, and identifying areas of habitat for protection. Very little mapping has been done in the Comoros, so one of the main areas of work

this year has been creating our own maps of land cover for Grande Comore, Anjouan and Mohéli. These maps will be a very important resource as a baseline to monitor changes to the landscape and the impact of the project's work.

Katie Green, a GIS specialist and head of ecological monitoring and research for the project, is creating the maps from specially commissioned satellite images of the three islands. Imagery software can classify each pixel of these images, depending on how the land cover at that point reflects sunlight into space. However, to be able to do this, the software first needs to be 'trained' using field data. The collection of field data is called 'ground truthing' and involves taking detailed descriptions of land cover at specific points

and using a hand held GPS unit to record locations.

Initial analyses of the images and knowledge of the landscape allows us to create categories of land cover which will be used in the classification process, such as natural forest, degraded forest, and plantation.

With the labour intensive data collection phase now complete, Katie is concentrating on processing the images and producing the final maps. These maps will be integral to most of the monitoring and research led by the team, as they will allow more accurate population estimates and distribution maps for species to be produced.

Encouraging results from Anjouan scops owl study

In May the ECDD ecological team supported Sam Lloyd, a Masters student at Imperial College to complete the first comprehensive survey of the Anjouan scops owl, *Otus capnodes*.

Otus capnodes which is endemic to Anjouan only, was believed to be extinct until it was rediscovered to science by Roger Safford of Birdlife International in 1992. At this point, the population was estimated to be as low as 100-200 pairs. It is currently classified as critically endangered on the IUCN's red list of endangered species. However very little research has been carried out on this enigmatic species, and to date little is known of the owl's ecology and behaviour.

Research into the scops owl population, its distribution and ecology is a priority for the ECDD ecological monitoring and research unit and is funded through BirdLife International's Preventing Extinctions Initiative.

Sam and Amélaïd Houmadi, an ECDD ecological technician, carried out over 200 point counts across a range of habitats and altitudes all over Anjouan. Nearly 300 owls were heard calling during the surveys, suggesting the population size is much greater than the last estimate. Interestingly, the owl may not be as dependent on undisturbed forest as previously thought as a significant number of individuals were also recorded in degraded forest habitat classes.

Although these initial results are encouraging, the high rate of deforestation continues to be a threat to the future of this species. This work represents the first step in the development of a long-term monitoring scheme, with further surveying currently underway to provide wet season data. A detailed report and publication including conservation recommendations will be produced at the end of the first year's study.



A rare photograph of the secretive Anjouan scops-owl which is better known for its haunting call



Comoros Climate Witness

In September we were pleased to enable Anjouanese villagers to contribute to WWF's Climate Witness project. This is Mohamed Oussene's story.

“ I'm 38 years old and live in a small village on the west coast of Anjouan called Kowé. The whole village used to be about two hours walk up the mountain in a place called Nkozini, but about 35 years ago people started moving down to the coast to set up a new village. I moved down here when I was 15, but I still farm up at Nkozini because that's where my fields are. Agriculture is how I make my living - I grow cassava, taro, bananas and yams for me and my family.

My mother died when I was young, and my father wasn't around much, so it was my grandfather who brought me up. When we were eating together he used to tell me how he thought things were going to change in the future. He saw that people were overusing the island's resources and predicted that soon there wouldn't be many fish left for example. He said that this would make people nasty, that they would no longer be able to share with others because they would have so little. I can see now that he was right – what he predicted is becoming the reality.

When I was young farming was very different. Then, if you had 15 banana trunks in your fields you'd be fine because they produced enormous bunches of bananas. Now even if you have a hundred it's not enough. The trunks produce tiny bunches because the soil is tired. It's the same with cassava and taro. When you harvest them you only find two or three tubers, whereas you used to dig up a whole bag's worth.

There used to be bad years and good years for agriculture depending on the weather, but now we just see that each year is worse than the last. We're now

very vulnerable, if there was a particularly bad year we wouldn't cope. I don't know if changes in rain, wind or sun have contributed to the changes I've seen, but I know that the rain isn't good for our crops anymore, it just carries away our soil down to the sea.

The forest used to reach right down to the village, now people have cleared so many fields you have to walk quite a few kilometres before you get to it. The forest itself has also changed – I remember when I was little and walked in the forest it was dark because the canopy was so dense. You can't find forest like that now, it's much more open.

We have problems with flooding in the village. If there is very heavy rain during the wet season, the river in the centre of the village bursts its banks and sometimes floods peoples' homes. When we first moved down to the coast there were trees all along the shore. They've all gone now and the sea is much closer to the village. I don't know if this has happened because the sea level has risen, or because we've taken too much sand and stones from the beach to build houses. Either way, we're at the sea's mercy now, sometimes very high tides flood people's homes. If there was a bad cyclone the village might disappear.

I don't know what my children will do for a living. I want them to learn a trade, but now children don't listen to their parents, they don't take advice. So maybe they will have to join me in the fields. I want my fields to provide



Mohamed Oussene with his youngest son

for my children after I'm not around, so I'm working hard to improve them by stopping erosion and increasing soil fertility. The ECDD project is helping me learn new techniques and get the materials I need to do this.”

Collected by Kitty Brayne

To find out more about the Climate Witness project and read more stories from around the world, visit www.panda.org/climatewitness.

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...means 'the news' in Comorian

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