

# DARWIN NEWS

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Newsletter of the UK Darwin Initiative



Promoting biodiversity conservation and the sustainable use of resources • <http://darwin.defra.gov.uk>

Happy New Year to you all. For this newsletter we requested articles on the theme of 'Communicating Biodiversity'. Again we've had a fantastic response with articles showing the wide diversity of approaches to this theme by Darwin Initiative funded projects, from 'infomercials' on Hispaniola's surviving endemic mammals, the solenodon and hutia to community ecotourism ventures in Cambodia. The next issue of the Newsletter will be out in April and we are looking for articles on the theme 'measuring progress in conservation' since this year is the International Year of Biodiversity and with discussions on the CBD 2010 targets reaching a peak later in the year.

December saw the closing date for all new applications to the Darwin Initiative for main projects and post projects. Congratulations to all for your hard work in submitting these.

Now this hard work has been passed over to the Darwin Advisory Committee for the difficult job of selecting those successful applicants. We expect to announce decisions on this in spring 2010.

In addition to main projects and post projects there is a closing date on February 19th for all applications for scoping awards, Fellowships and the new OT's Challenge Fund. Take a look at the website for more detail on these awards.

In November 2009 the Darwin Initiative hosted its second regional workshop this time in Brazil. This was an opportunity to bring together host country staff working on Darwin Initiative projects from all over Central and South America to discuss their work and to develop guidance for others on how to best tackle the challenges facing partnership working under the Darwin Initiative. See page 2 for information.



## Contents

Darwin News - P1

Brazil Workshop - P2

Darwin Lecture - P3

Africulture Project - P4

Hispaniola - P6

Agriculture in Sabah - P8

Yemen - P9

Cambodia Ecotourism - P11

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Full contact details for the Darwin Secretariat and the Darwin Initiative Programme are available on the Darwin website (<http://darwin.defra.gov.uk>)

# The Darwin Initiative second regional workshop, Brazil November 2009

Lesley Brown,  
Darwin Initiative Project Manager,  
LTS International

In November 2009, Defra provided an opportunity for all recent and current projects in South and Central America to attend a regional workshop in Brazil. Given the success of the first regional workshop in Tanzania in 2008 there was strong interest in this event with host country staff travelling from 11 countries to attend the workshop. This was even despite the heavy rain in Brazil causing a landslide to cut off much of the access to Teresopolis, the gateway town to the Serra dos Orgaos National Park, the venue for the workshop.

This was the second regional workshop of the Darwin Initiative following our first successful workshop in Tanzania in 2008. Prior to this, workshops hosted by the Darwin Initiative were traditionally hosted in the UK and attended by all the UK partners and any visiting overseas partners. The regional workshop, however, is an opportunity for host country staff to engage with others working in the region under the Darwin Initiative and to gain a wider perspective of the excellent work being carried out with Darwin Initiative funding. As in Tanzania, the aim was to explore partnerships but on this occasion from the perspective of Central and South America.

This was a fast paced and stimulating workshop for both staff from the projects and LTS International (the contractors supporting the Darwin Initiative and acting on behalf of Defra at this meeting) with discussions on the challenges and opportunities facing Darwin Initiative projects surrounding the theme 'Partnerships'. For some this was their first opportunity to leave their country to share ideas and knowledge with other conservation practitioners. Given the diverse technical backgrounds and diversity of conservation issues being addressed through the represented Darwin projects all commented on the many parallels between these projects particularly to do with working in partnership with their UK and international partners.



The morning sessions focused on sharing some of the successes of Darwin projects in Chile, Mexico, Guyana, Panama and Costa Rica. They also highlighted some of the challenges of working with institutions so geographically and often culturally remote. Those presenting were frank and open about how these issues had been dealt with which led into the afternoon's debates on the 'best practice' of partnership working. Our intention in hosting this workshop was to develop guidance for other ongoing or prospective Darwin projects to better work in partnership to achieve the goals and objectives of the Darwin Initiative. These have now been developed using the excellent input from all participants at both the Brazil and the Tanzania workshop as, despite their geographic and cultural separation, many of the issues facing these host country staff were similar.

The proceedings will be placed on the Darwin Initiative website shortly and contain summaries of the presentations given. Also shortly to be placed on the Darwin Initiative website is a learning note based on the experiences of all those that have attended both the Brazil and Tanzania workshop. It is important to note that this Learning comes directly from host country staffs who have all worked on Darwin Initiative funded projects – from the horse's mouth one might say. The note is not intended to be an exhaustive review of challenges facing partnership working but intends to highlight useful actions that can create a strong mutually beneficial partnership in addressing biodiversity conservation.

# Annual Darwin Lecture

## Hilary calls for action to save threatened species



The 10th annual Darwin Lecture took place on 26th October, 2009 in the stunning settings of the Natural History Museum's new Darwin Centre. This provided a forum to discuss key biodiversity issues affecting the world we live in. 2009 was a special year for remembering the work of Charles Darwin; it was the 150th anniversary of the publication 'On the Origin of the Species' and the 200th anniversary of his birth. In recognition of this, a video was shown at the lecture of Charles Darwin's great-great-grandson, Randal Keynes reading an extract from 'On the Origin of the Species'.

Speaking at the lecture, Hilary Benn warned that the world is failing to protect its natural

habitats and species and international action is needed as climate change takes hold. Hilary said: "At present the world is failing to protect its biodiversity. We stand poised between the extinct and the living; we cannot go on as we are." He called for the international community to set a new target for improving biodiversity and identified a need for a new system of governance for our seas and marine ecosystems.

Hilary's keynote speech was well received by the audience which included academics, policy officials, business leaders and Non-Governmental Organisations (NGOs) in the field of conservation. You can read the full transcript of Hilary Benn's speech [here](#).

# Umthathi Africulture Project

Project ref: 14-050  
Georgina McAllister, Michelle Griffith &  
Monique Simmonds  
Garden Africa

The Umthathi Africulture Project's specific focus is the protection of the biodiversity of South Africa's Thicket Biome - a biome which is under serious threat due to the over exploitation of medicinal and other species, as well as illegal harvesting for national and international trade. The detrimental impact on local healthcare and related livelihoods, upon which over 85% of the local population depend, are significant. It is this link between plants, health and livelihoods that has provided the focal point for communicating biodiversity, both to the projects' stakeholders and other interest groups.

The Eastern Cape is recognised as one of the planet's most important biodiversity hotspots, with all seven of South Africa's biomes converging in this one Province. It is also the most vulnerable province in South Africa with much of the population relying on traditional medicines as their primary source of health care - both for financial and cultural reasons. In addition, diseases such as AIDS, TB, diabetes and hypertension have become more prevalent, increasing reliance on traditional health care, where allopathic services struggle to cope. This places a huge strain on the dwindling wild populations

Africulture nursery collection: Georgina McAllister



of medicinal plants, as well as on the traditional health sectors capacity to respond. The loss in biodiversity is compounded by underdevelopment, highlighting the need to protect dwindling wild plant populations for bio-cultural conservation.

The World Health Organisation (WHO) estimates that around 70% of the population in South Africa uses traditional medicines, and 85% in the Eastern

Prof Simmonds & Umthathi team: Georgina McAllister



Cape, with the estimated industry worth over R250 million. A study undertaken in the Africulture Project's target area found that approximately 525 tons (valued at about £2,250,000) of 166 medicinal plants are used annually. Of the species documented, 93% were being harvested unsustainably and 34 species were prioritized for conservation. The loss of this magnitude of biological and cultural diversity presents a severe threat to community health and traditional knowledge in the Eastern Cape, and the wider region.

The Africulture Programme revolves around the development of a 10-hectare site on the outskirts of Grahamstown where culturally valuable medicinal species are being made more available through cultivation, and are further protected through training and advocacy. The Programme is already achieving this by facilitating a shift from the utilisation of wild harvested species to the acceptance of sensitively propagated and grown plant material, and is unique in the Eastern Cape - aiming to establish protocols by which similar initiatives can be established.

The first phase of the Project was initiated by local training organisation, Umthathi Training Project Trust, in partnership with GardenAfrica and the Royal Botanic Gardens, Kew. As well as transferring skills in extraction protocols, Kew has undertaken authentication of the plants identified by traditional health practitioners. These were identified as being important to their practice, while increasingly difficult to source in the wild - due to both the privatisation of land, and over exploitation. This continues to ensure that the Project's cultivated materials are of equivalent quality to those which harvested in the wild, while providing vital assurances to practitioners regarding the value of cultivated alternatives.

During the Defra Darwin funded foundation phase, which enabled the Project to secure 1 of the 10 hectare sites, the project team has gained valuable experience which continues to inform the Programme as it moves forward. Expanding both the site and work, to include harvesters and traders, the Project intends to establish an ex-situ 'wild' collection area, and will continue propagating the medicinal species which will be transplanted in the collection area for supply to healers, harvesters and traders. This will provide an excellent point of contact through which the programme can

continue to communicate information on biodiversity and the challenge that current demands places on it. These advocacy workshops are aimed at improving understanding about HIV/AIDS & safe-use vis a vis contra-indications, IKS protection, legal & sustainable harvesting, and legislation such as the National Environmental Management & Biodiversity Act (NEMBA), Provincial environmental legislation and the Traditional Health Practitioners Act, under which traditional health practitioners are expected to register.

Obtaining endorsements from the traditional health sector and increasing trust in cultivated materials, has been pivotal to the success of the project to date, and will improve the likelihood that these represent a viable alternative for use and trade, thereby reducing the strain on wild plant populations.

Building on this valuable UK support to date, negotiations are underway to continue developing authentication techniques and products in partnership with Rhodes University to ensure that those plants harvested from the wild, or rescued from development and other commercial initiatives, provide the highest quality propagation materials for medicinal use and restoration for the long-term benefit of the Eastern Cape and its hosts.

Traditional healers blessing the site- planting Umthathi tree :Georgina McAllister



# Hispaniola's endemic land mammals: The Last Survivors

Project ref: 17-025

Dr Richard Young and Jose-Nunez-Mino (Durrell Wildlife Conservation Trust), Jorge Brocca (Sociedad Ornitológica de la Hispaniola) and Dr Samuel Turvey (Zoological Society of London)

Communicating biodiversity is a key component of the Defra Darwin Initiative project “Building evidence and capacity to conserve Hispaniola’s endemic land mammals”. Starting in October 2009, the project’s purpose is to enable long-term conservation of the globally endangered Hispaniolan solenodon and hutia through participatory species action planning, a strengthened evidence-base, an island-wide monitoring programme, and improved awareness. Communication is vital for overcoming barriers to effective population assessment and monitoring at national level, and to establish local pride and build wide support for action plans for these species.

In the Dominican Republic, the project has been named “Los Ultimos Sobrevivientes – salvando el Solenodonte y la Hutia de la Hispaniola” (The Last Survivors – saving the Hispaniolan solenodon and hutia). We hope that the term “last survivors” will capture the imagination of Dominicans by communicating the message that these two species are the only survivors of Hispaniola’s once-rich endemic mammal fauna. About 25 land mammals existed on the island until human arrival, with many species surviving into the European historical era.

Mystery has always surrounded the Hispaniolan solenodon and hutia. Periodically over the last century, naturalists have claimed both species to be extinct. Following Cuvier’s original description of the hutia in the early nineteenth century, it was only rediscovered by the Smithsonian collector W.L. Abbott in 1923. Cuvier and Abbott both warned that hutias were doomed due to overhunting, the invasive mongoose

and their slow reproductive output – making it one of the first species ever to be recognised as being in danger of extinction. Despite subsequent research, particularly in the 1970s and 1980s, the status of both species remains poorly understood.

With such little information on even the most basic ecology of solenodons and hutias, it is impossible to design comprehensive conservation actions and evaluate impact of management. We have started an intensive field survey of both species in two regions of DR, which will be rolled out across the whole country over the next year. To complement these surveys, we will facilitate communication of species sightings by local people, allowing us to more fully assess species status and engage local communities

Field project manager, Jose Nunez-Mino, with Hispaniolan solenodon: Philip Bethge



in a future monitoring programme. However, early project findings show that solenodons and hutias are commonly confused with one another, and have inter-changeable local names which vary between regions. We will explore how to develop and communicate a regionally relevant and consistent nomenclature for both animals, and to design reliable methods for transferring species observation data from local communities and protected area staff to feed into monitoring.

What little is known about solenodons and hutias has not yet been widely disseminated beyond scientific researchers. Preliminary surveys of local communities indicate that low levels of knowledge of the species' values prevail, with occasional misconceptions of them as agricultural pests. In order to raise national pride and awareness in the species, an 'infomercial' film describing the main messages around these animals and their conservation is being made to target children, young people, government and civil organisations, and the international conservation community. The films will be played at meetings held with communities local to our study sites, and on national television.

We will use online media to communicate messages from the project, and to raise national and international awareness in order to increase conservation attention on Hispaniola's endemic mammals. Building on a successful news story and video on the BBC website in January 2009, which received 1.2 million hits in the first few days of its release, we will be using video and blogs to communicate project activities in the field, and information about the species and key conservation issues. A project website ([www.thelastsurvivors.org](http://www.thelastsurvivors.org)) will be launched in early 2010 to disseminate information and outputs from the project, including online species distribution maps. These will be populated with survey data soon after collection in the field to enable rapid communication of project results to stakeholders.

By the end of the project, we intend that both the status and conservation needs of the Hispaniolan solenodon and hutia will be understood and communicated to a wide audience. We hope this will facilitate development of effective and comprehensive action plans to ensure that these last two survivors do not go the way of Hispaniola's other endemic land mammals.

Research assistants, Nicolas Corona and Dionis Corona, interviewing local farmers: Jose Nunez-Mino



# Developing tools for reducing biodiversity losses in tropical agricultural landscapes

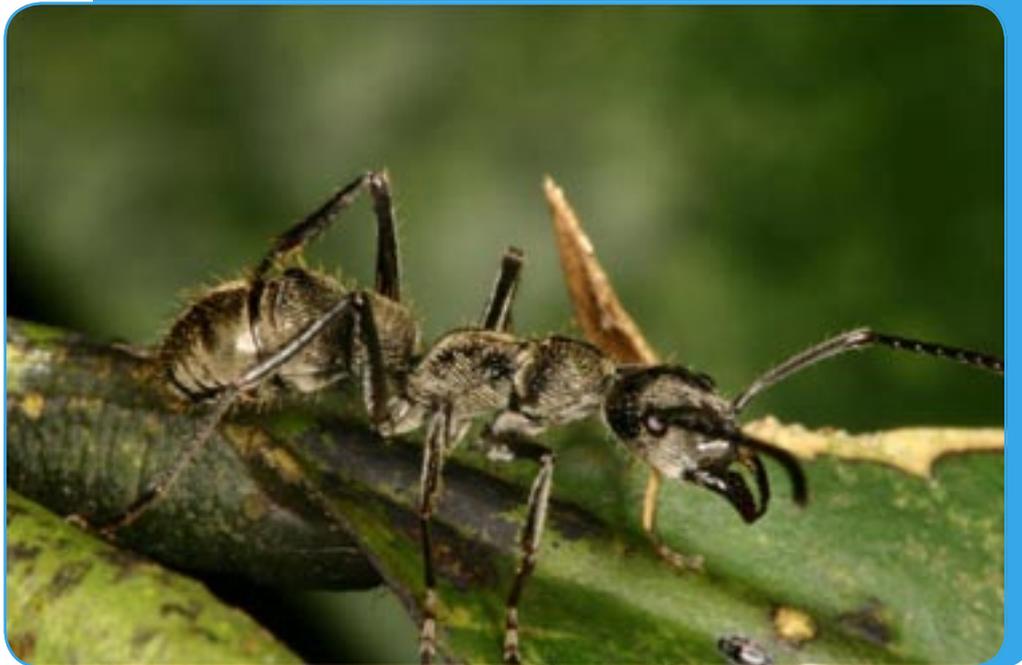
Project Ref: 17-003  
Project researcher: Noel Tawatao  
(University of York)

The widespread conversion of Sabah's tropical forests for agricultural use has prompted scientists to examine methods for reducing biodiversity losses in agricultural areas. Although oil palm is crucial to Sabah's economy there are concerns that the plantations are detrimental to the biodiversity of the country. However many plantations are wishing to develop methods for maximising biodiversity and this project is examining how forest remnants within plantations affect biodiversity and ecosystem function in the surrounding oil palm areas.

Small forest remnants are often left within plantations either because the location is unsuitable for agriculture, because the remnants form riparian reserves or because of their importance in preventing soil erosion. This project involves the sampling of insects in forest remnants and in the surrounding plantations. During a previous Defra Darwin Fellowship (EIDPSO12), methods and protocols were developed for sampling ground-dwelling forest ants and for understanding the effects of forest disturbance on ant distribution and abundance. Ants are an important taxon within forests, and perform many important ecosystem functions such as decomposition, predation, and maintaining soil structure. Methods developed in the earlier project are being used to determine possible 'spill over' effects of ground-dwelling ants from forest remnants into adjacent areas of oil palm.

Since the project inception in June 2009 there has been liaison with oil palm plantation managers to select suitable field sites. Twenty small forest fragments have been identified which span a range of sizes from 10-150 hectares. These remnants are located in the eastern part of Sabah on plantations which are practicing sustainable palm-oil management based on the global standards of the Roundtable for Sustainable Palm-Oil (RSPO). Sampling has been completed in two fragments and two adjacent areas of oil-palm plantations.

*Diacamma intricatum*, a predatory ant: Noel Tawatao



A combination of sampling techniques is being used for studying ground-dwelling ants (Winkler extraction techniques and unbaited pitfall traps). Preliminary results reveal declines in ant diversity in remnants compared with data from other research which sampled more extensive areas of forest. Whether these changes in diversity are associated with changes in different functional groups of ground-dwelling ants is now being investigated. More sampling will be required during the project to fully understand the consequences of forest conversion and fragmentation.

Sampling ground-dwelling ants : Noel Tawatao



Environmental factors within remnants are also being examined to explore possible mechanisms for any changes we observe in biodiversity and ecosystem functioning within remnants.

Collected specimens are currently being prepared for formal identification and imaging and the intention is for all ant species sampled during the project to be uploaded onto 'Antweb' ([www.antweb.org](http://www.antweb.org)), an online ant identification tool hosted by the California Academy of Sciences (CAS). A photographic field guide to 'The Ants of Sabah' will be produced in 2010. This will include current information from ants collected as part of the Darwin Fellowship, as well as any additional specimens sampled during this project. Both the web resource and book will be updated as new material arrives. Because the identification of ants can be problematic and requires training, an international ant identification course organised by CAS will be held in Sabah in August 2010 to help train local researchers in ant identification.

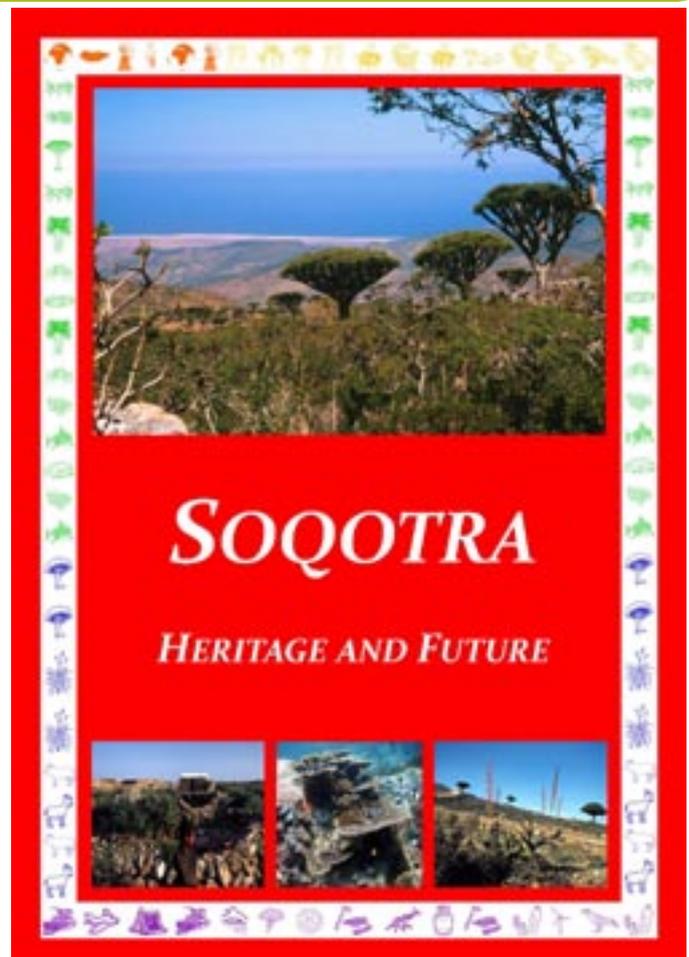
## Environmental educational programme promoting biodiversity conservation on Socotra, Yemen

Project ref: 14-002

Roderic Dutton (University of Durham)

The scientific exploration of the Soqatra archipelago dates back to the 19th century when surveyors reported on its unique plant communities. Research in the late 20th century intensified when an international team of terrestrial and marine bio-scientists worked on the island for several years with enthusiastic support from the Soqatra Conservation and Development Programme led by Abdul Rahman al Eryani (currently Minister for Water and Environment in Yemen). As more books and articles told of the high proportion of unique and endemic plants and animals on Soqatra, the island became recognised internationally for its priceless heritage.

To some extent the sheer poverty of the island engendered a deep respect for conservation amongst its people (if the water becomes



polluted and if the plants and animals die, we die!) and community-based regulation preserved the rangelands and the other habitats. Children worked alongside their parents from a young age and absorbed from them, as if by osmosis, an understanding of the principles and

practice of biodiversity conservation. The island's remote location and relative isolation (it was only accessible by a several day journey by dhow or military aircraft) reinforced this need for self-sufficiency.

However, circumstances began changing as this isolation eased. Schools were being built so both boys and girls started to spend the most active hours of their days away from their parents, usually being taught by teachers from other Arab countries who knew nothing about the flora and fauna of Soqatra, or its importance. The difficult three-day journey from the mainland to Soqatra by fishing boat was being replaced, in 1999, by weekly flights from both Sana'a and Aden which brought mainland Yemenis and their business enterprises (big and small) to Soqatra, as well as a growing number of tourists. Also, an ever growing network of roads and imported vehicles were making it much easier for everyone to reach even the most remote parts of the islands.

A paradox developed. At the same time that the world was learning about the biodiversity splendours of the islands, the young people on the island were losing an understanding of their heritage and how to live in harmony with it. The same thing had been seen in Oman in the 1970s when oil wealth fostered both biodiversity research and a reduced respect of local children for their biodiversity as education shifted to new schools led by teachers from other countries. What could be done to mitigate the problem in Soqatra?

We were awarded Defra Darwin Initiative funds

Qaeso Cliff Road: Sue Christie



to develop school curriculum materials (maths, science, social science and English) on local biodiversity and the issues impacting on it, based on the accumulated culture and

natural heritage information. However, through time, the project has evolved. Today we are on the point of publishing a 130 page, 15 chapter, fully (beautifully) illustrated book in Arabic on Soqatra's natural and cultural heritage and its future management. The book is aimed not only at the older children of the island, but also at all people interested in it, including those on the Yemeni mainland. It combines information on the local biodiversity with basic knowledge about the threats to biodiversity on a global scale. We hope it presents the issues in a way accessible to all readers on Soqatra, the mainland and more widely in the Arab world.

Our goal is to develop pride in the unique heritage of the island, provide information about the issues and encourage local people to become fully involved in the debate on finding the right sustainable balance between conservation and development in the long-term interests of themselves and of the islands which are their home. To that end local NGOs were fully involved in the development of the project and are managing the distribution of the books on the island in a way which should maximise their impact.

Additional funding from UNESCO, plus support from the Friends of Soqatra, is allowing us to publish copies of the same book in English. We hope this will be used by people on Soqatra to help improve their English. But most copies will be sold to visitors to the island who will thus, we hope, walk more carefully when there! The proceeds will go to local sustainable projects.

# Scaling up sustainable conservation through ecotourism and community-based monitoring

Project ref: EIDPO030  
James MacGregor (IIED) Nick Cox (WWF)

Deputy Governor at Inauguration ceremony:



A new ecotourism venture funded by Defra's Darwin Initiative has been officially welcomed by local communities. Dressed-up in traditional costume, a group of the ethnic minority Phnong community from Dei Ey in Monduliri province chanted in their mother tongue as they were drinking traditional rice wine to show respect to the spirits of the forest and the land. With pride, they cheered for the area's first community-run homestay, officially inaugurated in November 2009 to promote wildlife ecotourism in the dry forests of north-eastern Cambodia.

Over 100 participants including Government officials, representatives of private sector, journalists, WWF staff and other local communities together celebrated with the community ecotourism group. "The villagers are enthusiastic to become involved in this ecotourism project because it can help the community earn extra money to improve their living conditions," said Dam Nyam, a local Phnong and Chief of the Dei Ey Community Ecotourism Group, adding the community's commitment to run and manage all activities and services associated with tourism in order that all community members will receive enduring benefits in the long term.

The inaugural ceremony included an entertaining role-play about preserving wildlife and forest habitat through ecotourism performed by 12 ecoclub students aged 7-12 years, with blue and pink outfits, who transformed themselves into wildlife, hunters and tourists to set-up an unforgettable performance that carried with it an important conservation message. Mr Dam says the villagers and their children understand the importance of protecting their surrounding forests that already for many years provide the necessary needs for their everyday consumption from one generation to another. "The forest is our life and we must protect it so that it continues to provide our community with benefits that are sustainable, like the wildlife ecotourism we are now involved in," he added.

When delivering his speech at the inauguration, his Excellency Svay Sam Eang, Deputy Governor of Monduliri Province, declared that ecotourism is a strategy that can help reduce the community's dependence on forest-based livelihoods. "The establishment of the community homestay project increases the understanding of local communities about the importance of ecotourism to their environment and livelihoods and therefore promote their participation in natural resource protection".

Elephant trekking inside the dry forest: Asnarith



Addressing the inauguration, Mr Men Phymean, Director of Wildlife and Biodiversity Department of Forestry Administration, emphasised the value of the forest and wildlife in Mondulkiri in attracting tourists and the need to preserve them for the benefit of conservation and people's livelihoods. He added that the forest has unrivalled potential for wildlife ecotourism because of its beauty and diversity, including dry forest, bamboo, evergreen and semi-ever green forest and populated with endangered wild species such as Banteng, Gaur, Eld's Deer, Wild Elephant, Wild Water Buffalo, Siamese Crocodile, Primates and other diverse bird species.

The structure of the community homestay lies within the Mondulkiri Protected Forest is adjacent to the Phnom Prich Wildlife Sanctuary. This geographical characteristic maximizes the chance for visitors to see wild animals and other forest resources in both protected areas. The community homestay is a pilot project involving 13 community members from Dei Ey of Chong Phang village and serves as a start to establish an ecotourism mosaic within the country's Eastern Plains dry forests landscape. This project will provide accommodation, traditional food and a diversity of entertaining activities, including forest and elephant trekking, animal observation from hides, mountain biking and gaining insight into local culture and traditions in nearby villages.

Protected area needs long term financial mechanism  
The WWF's Eastern Plains Landscape Project works with the Cambodian government on protecting two

important protected areas - Mondulkiri Protected Forest and Phnom Prich Wildlife Sanctuary - with a total area of 6,000 km<sup>2</sup> and home to many endangered and globally significant wildlife. The project's goal is to keep the last wilderness of Cambodia intact and connected, helping people protect their wildlife while sustaining livelihoods.

In 2007 the Forestry Administration, provincial government and WWF began a strategy to develop ecotourism projects to serve as a financial mechanism to support the protected areas on-site management and provide incentives for landscape conservation. The aim is to co-finance protected area management and provide the local community with the opportunity for additional income generation. For ecotourism to be better perceived as a means of improving local livelihoods, an active participation of the community in the overall process of tourism development is required. "While this is a WWF-supported project, it is very important, for the long-term aim, to promote community ownership over the development and management of ecotourism," said Olga van den Pol, WWF's Ecotourism Team Leader. The community's direct involvement in planning processes creates a sense of ownership which enables their ability to retain control over the growth of tourism in their area. The community is therefore responsible for identifying members to represent their interests and will when dealing with private tourism agents for agreements and guidelines establishment prior to actual operations.



While tourism planning is being trained, capacity building and training needs have been assessed in order to equip the community with skills they need to run the business by themselves when the right time comes. For the time being, the WWF ecotourism team is assisting the community ecotourism group in developing a business plan that respects the principle of environmentally-friendly tourism. Olga says the members of the ecotourism group received training in guiding, hospitality, cooking and hygiene and they are ready to welcome tourists to stay in the community homestay, and take them out to explore the surrounding forest