



# Darwin Initiative Annual Report

## Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders: it is expected that this report will be about 10 pages in length, excluding annexes



**Submission Deadline: 30 April 2011**

## 1. Darwin Project Information

Project Reference	17-009
Project Title	Integrating religion within conservation: Islamic beliefs and Sumatran forest management
Host Country/ies	Indonesia
UK contract holder institution	Durrell Institute of Conservation and Ecology (DICE), University of Kent
Host country partner institutions	University of Andalas (UNAND); British Council (BC)- Indonesia; Qbar; Conservation International (CI)- Indonesia Programme; Fauna and Flora International Indonesia Program (FFI-IP); Indonesian Conservation of Natural Resources section for West Sumatra province (KSDA), Department of Forestry.
Other partner institutions	Islamic Foundation for Ecology and Environmental Sciences (IFEES), UK
Darwin Grant Value	£229,321
Start/end dates of project	1 July 2009 -30 June,2012
Reporting period	1 April 2010 -31 March, 2011, AR 2
Project Leader name	Professor Stuart R. Harrop
Project website	<a href="http://www.kent.ac.uk/dice/research/islam_conservation.html">http://www.kent.ac.uk/dice/research/islam_conservation.html</a>
Report authors, main contributors and date	Jeanne McKay and Yoan Dinata, with support from local partners CI-IP & FFI-IP, March 2011

## 2. Project Background

Ecosystem services (ES) are essential for human well being and life on earth. However, the Millennium Ecosystem Assessment states that nearly two-thirds of the world's ES are under threat, with watershed-related services being the most urgent national level priority. Containing 10% of the world's remaining tropical rainforest, Indonesia provides vital ES for the international and national community in the form of carbon sequestration and climate change mitigation and for rural communities in the form of watershed management. Yet, high deforestation rates in Indonesia, particularly Sumatra, highlight the need to promote and facilitate sustainable natural resource management to ensure ongoing benefits from these ES.

Indonesia has the world's largest Muslim population (88% of its 245,500,000 population follows Islam). Religion has a strong influence on daily life and within Islam there are several key principles (*Tauhid, Khalifah, Mizan and Fitrah*) written in the *Al-Qur'an* that underpin nature conservation and outline the human role in conserving natural resources.

Through a Darwin scoping award, and subsequent pilot project, all project partners identified the potential of using faith-based and customary teachings on the environment for being highly effective in changing behaviour to conserve natural resources, especially when linked to the multiple benefits ES provide for human welfare. However, our project participants agreed that a lack of awareness about these Islamic systems and institutional capacity to implement them hindered their effectiveness in the sustainable management of forests and their ecosystem services. Further discussions with the wider community, in Friday prayers and village meetings, found strong commitment to integrate and formalise religious principles within a fully-functioning land and forest management system that would provide simultaneous benefits to local livelihoods and biodiversity. Therefore, this project continues to work with Islamic leaders, teachers, scientists and project partners to promote conservation across Indonesia according to these principles.

The project headquarters are based in Padang, the capital of West Sumatra, with field sites currently in two *nagari* (legally recognised traditional administrative system comprising several villages and different tribes of the Minangkabau ethnic group): Guguk Malalo and Pakan Rabba.

### 3. Project Partnerships

This project continues to be afforded both the benefits and challenges of working with a dynamic and multiple partner base. Overall, the relationship with DI partners remains collaborative and motivating. During the past year, the project has continued to work successfully with its partners to conduct training workshops, meetings with local and rural community partners, and the promotion of project work in the local and international media. There has also been continued success in leveraging DI partner funding from British Council (BC) that covered all international and local expenses for our UK-based project partner Fazlun Khalid (Islamic Foundation for Ecology and Environmental Studies, IFEES) to attend as the key note speaker at the international Muslim Action on Climate Change Conference (MACCA) held in Bogor, Java from 9-10<sup>th</sup> April, 2010. BC also covered the costs for Dr Shafwan Nawawi, the Chairman of Indonesian Dai Association (IKADI) to attend as the DI project's religion liaison and CI provided the accommodation and meals for the DI PO and FM. In addition, following on from this auspicious international conference, the BC provided financial support for the DI religious leader training workshop in Padang (14-15<sup>th</sup> April 2010). This enabled the project to benefit from the existing presence and expertise of partner representatives from the UK (IFEES) and Jakarta (CI) who provided expert co-facilitation of the DI religious leader training workshop and subsequent outreach materials. IFEES and CI also continued to promote the project in PY2 via their international and national newsletters.

Regionally, the BC continues to provide training on climate change related issues and financial sponsorship for DI partners and staff to attend their meetings and teacher training workshops. In PY2, BC sponsored two teachers from the DI field sites to attend their 'Climate for Classrooms' teacher training in Jakarta (23-25<sup>th</sup> September 2010) and the DI Ecosystem Services Coordinator completed Phase Two of Al Gore's global initiative ('Grand Connectors training for Climate Change') that was held in Jakarta (24<sup>th</sup> April 2010). Fauna & Flora International (FFI)-Indonesia Programme continues to provide financial support for the DI Field Manager (a new position completely funded by FFI during PY1 with 50% match funding from DI/FFI for PY2), an annual M&E project appraisal (5-8<sup>th</sup> October 2010) and expertise regarding the design and construction of DI community field schools and nurseries in the two DI field sites.

The local NGO Qbar, continues to manage daily outreach activities within rural communities, e.g. Participatory Rural Assessments (PRAs), overseeing the DI field schools and tree nurseries and providing support in the establishment of a community-based natural resource management initiative in the 'Hutan *Nagarī*' (further explained in Section 4.1). Following on from PY1, the new head of BKSDA remains extremely supportive of the project, attending the PY2 stakeholder meeting (October 2010) as well as donating 2000 high quality mahogany seedlings to the DI field schools.

Another notable achievement, from the last reporting period, was the University of Andalas's (UNAND) signing of a project-based MOU with the University of Kent in July 2010. This ongoing commitment resulted in two joint UNAND / DI facilitated training workshops on biodiversity identification and monitoring techniques and Patrolling. Further, the DI project continues to provide financial and motivational support for the two Darwin Scholars (UNAND MSc students) through bimonthly project updates and involving them in field activities that are relevant to their studies and DI TORs.

From the grassroots level, strong partnerships continue with village and customary leaders, religious leaders (Mr. Syafril and Mr Dasirzal Dahlan who have been involved with the program since its inception and will be leading the 2011 DI Ramadan Conservation Programme) and leaders of local women's and farmer's groups (representing >45 groups).

In order to ensure continued project transparency and a forum of open communication amongst all partners, a second annual stakeholder meeting and project mid-term M&E mission was conducted in Padang, West Sumatra (5-8<sup>th</sup> October 2010). This provided a good opportunity for the DI Indonesian partners to discuss the challenges and successes related to their PY1 activities, as well as clearly outlining their continuing role in the PY2 DI work plan. Further, the DI MSc scholars presented their research proposals to the wider partners. To increase knowledge and awareness about the DI project, we opened an account on the social networking site Facebook and within a few months have acquired >100 members. For local community members, teachers and religious leaders who do not have access to the internet, regular meetings continue to be the main form of communication and outreach. With regards to specific activity related outputs (e.g. project planning, partner collaboration, organising a project activity), these meetings are held either in DI project field sites, partner offices or the office HQ in Padang.

#### Other Collaborations:

- The West Sumatra Tiger Corridor Initiative: In partnership with FFI-Indonesia and the Panthera Foundation, the DI project continues to collaborate with local NGOs and communities to support the development of a landscape-wide initiative that aims to protect tigers and their forest habitat. FFI was successful in securing a US\$50,000 grant for this area, which overlaps and complements the DI site and field activities. Also, DI and FFI's Mentawai Gibbon project share a project base in Padang.

- Indonesian Dai Association (IKADI), West Sumatra: The chairman of IKADI, Dr. Shafwan Nawawi, and project supporter, regrettably passed away from a sudden illness in October, 2010. Mr Raichul Amar, the secretary of the Indonesia Ulama Council in Padang has agreed to take his place as the DI project's liaison. Having also attended the MACCA conference with Mr Nawawi, he is both supportive and enthusiastic about the project.
- Provincial Forestry Agency (PFA): Mr. Hendri Octavia, the Head of the PFA, has expressed his personal interest in seeing the first establishment of *Hutan Nagari* in West Sumatra and will support the next steps required at the provincial government and Ministry of Forestry levels to move this process forward in the DI field sites.
- World Agroforest Center (ICRAF) West Sumatra Programme: DI staff met with the ICRAF Coordinator for West Sumatra to discuss both projects' activities, lessons learned and the potential for future collaboration (e.g. ICRAF works in a neighboring *nagari* through their Rewards for Use, shared investment in Pro-poor Environmental Services (RUPES) Programme).
- Padang State University (UNP): 22 November 2010, the project field coordinator gave a talk at the Forest and Climate Change seminar. The DI project will also be providing 100 seedlings to be planted in the UNP campus in Padang (April, 2011) as part of a conservation awareness raising exercise.

#### **4. Project Progress**

The DI project staff and partners have managed to get that project back up to speed, having now completed all of the outstanding PY1 activities that were delayed by the 2009 earthquake, as well as all of the PY2 activities. Below is a summary of these activities.

##### **4.1 Progress in carrying out project activities**

**Output 1.** Multi-stakeholder governance framework for forest and ecosystem services established and active on the ground.

*Activity 1.1. Establish and support an operational governance mechanism for forest management throughout the project.*

At the communities' request, the DI staff and local NGO partner Qbar will provide support for the establishment of a customary forest governance system (*Hutan Nagari*) that will adopt the Islamic (*hima*) management system and serve as a Best Management Practices pilot for future government replication in West Sumatra. Qbar will assist the *nagari* in developing governance systems (legal process and regulation) and the community organization to manage the *Hutan Nagari*, as well as the DI nurseries. This will be supported by project-developed spatial land use and forest management plans, for which the DI staff will seek official government endorsement. Project information collected from the PRAs, mapping exercises and biodiversity assessments will form part of the essential information required by local government. The two DI MSc research projects will provide academic input by focusing on: i) The Interaction between State and Living Law (Islamic Law and Adat Law) on Natural Resource Management; and, ii) The Role of Religious Leaders in Natural Resource Management.

**Output 2.** Forest monitoring and protection systems and procedures strengthened and implemented.

*Activity 2.1. Community training workshops to raise awareness, involve stakeholders and build a locally managed conservation dynamic.*

Following on from the PY1 Focus Group Discussions (FGDs), DI staff joined with Qbar in conducting in-depth PRAs, which included community mapping exercises within both project *nagari*. These activities achieved high levels of local participation (Guguak Malalo: 5 village heads (including one female), 2 student leaders, 1 member of the *Nagari* Consultative Body (NCB), 1 chairman of the Community Empowerment Institution, 2 customary leader and 2 *nagari* staff members and; Pakan Rabaa: 6 community leaders, 2 religious leaders, 3 village heads, 9 customary leaders, 1 women's group leader, 2 student leaders, 5 *Nagari* staff members, 5 members of the Institution for Community Empowerment and 4 members of the NCB).

*Activity 2.2. Facilitate training and participatory mapping of traditional land-use and natural resource management system.*

Data collected from the PRA community mapping exercises were used to create maps for each nagari which were then ground-truthed through 115 data points for Guguak Malalo and 140 data points for Pakan Rabaa. As a result of this process, the DI team and local communities agreed upon a novel approach to protecting the forest and their ecosystem services which involved mapping the different ecosystem service in each *nagari* rather than focusing on delineating administrative borders (an unresolved source of local tensions). The Islamic management systems of *Hima*, *Harim* and *Ihya Al-Mawat* will then be overlaid to generate a common understanding of the religious, ecological and socio-economic importance of these biodiversity-rich areas. All maps will provide the spatial data for *Hutan Nagari* establishment (Activity 1.1).

*Activities 2.3 and 2.4. Train and support local forest and biodiversity monitoring and train local and provincial forest staff on community-based partnership in forest management*

In partnership with 4 faculty members from the UNAND, a 3 day biodiversity training course was delivered to, and an accompanying manual produced for 58 participants from both project sites (community groups, local and government agencies; including 2 representatives from project partner BKSDA). Further, a Rapid Biodiversity Assessment and Community Patrolling training was conducted by DI staff and partners over 3 days in each *nagari* (16 participants).

**Output 3.** Forest and ecosystem services and local livelihood opportunities enhanced.

*Activity 3.1. Establish Darwin Field Schools with community managed tree nurseries*

Based on the results and selection criteria discussed during FGDs (PY1) and information gained from the PRAs (PY2), two sites were selected by the community to house the field schools and nurseries, which were then built by the communities (January-March 2011) with, training conducted in both field school (February) and nurseries (March) by DI staff and partners on identification of land suitability, nursery management including plant care, organic composting and pesticide production and natural resource management based on the Islamic principles of *Hima*, *Harim* and *Ihya Al-Mahwat*.

*Activity 3.2. Support reforestation and rehabilitation on degraded land*

The seedlings cultivated in the DI Field School nurseries will be replanted within the local communities under the Islamic principle of *Ihya Al-Mahwat* to reforest degraded land in each project site as well as to support other local initiatives (e.g. 100 Mahoni, *Swietenia macrophylla* seedlings will be given to Padang State University as part of their student replanting programme).

*Activity 3.3. Research into forest ecosystem services*

Community mapping exercises and the subsequent ground-truthing for GIS purposes has resulted in an ecosystem map for each *nagari*. These maps will be provided to both DI/UNAND scholarship students to aid in their project research as well as form part of the information required to establish *Hutan Nagari* in both project sites.

**Output 4.** Environmental conservation awareness and education raised and integrated within rural and urban communities and widely disseminated.

*Activity 4.1. Formalise a religion and environmental conservation curriculum and train religious, traditional and village leaders*

In April 2010, a joint project partner (BC, CI and IFEES) Ulama training workshop entitled, 'Islamic Teachings and the Application of Natural Resource Conservation Practices in West Sumatra' was conducted over 3 days in the provincial capital of Padang. With funding from BC, the training material content incorporated CI and IFEES's expertise in religion and the environment. A one day field trip to a DI *nagari* (Guguak Malalo) gave the religious leaders an opportunity to experience a real case study to help them in developing their own ideas on how to promote conservation messages within a religious context. 13 participants (6 religious leaders, 5 village leaders, 1 member of IAIN and 1 member of the Minangkabau Customary Organization-LKAAM) from both DI *nagari* and from Padang were trained on the Islamic teachings on natural resource management regulations and helped to identify the relevant environmental messages in Al Qur'an. A religious leaders training module was designed and adapted based on feedback received from the workshop participants.

#### *Activity 4.2. Develop and formalize school curriculum on religion and environmental conservation.*

During the holy month of Ramadan (July 2010), the DI project staff conducted a Ramadan campaign that piloted a conservation themed curriculum for religious high schools. In addition, sermon guidelines were developed for local *Ulamas* to deliver conservation messages (e.g. damage of natural resource on Earth, Allah's creations, damage caused by humans and rehabilitation efforts) within their Friday sermons. The *Ulamas* then delivered these in nine mosques reaching close to 1,000 people. The DI team also gave seminars at local religious schools (*pesantrens*) and within mosques (160 students) focusing on issues concerning: climate change and global warming (linked to the Grand Connectors training), Al Qur'an and conservation and the importance of ecosystem services. Two conservation-themed religious bulletins were produced which will be expanded upon for a conservation curriculum designed specifically for *pesantrens* in preparation for the next Ramadan Campaign (August 2011).

#### *Activity 4.3. Deliver outreach in urban and rural communities, and support delivery of local environmental projects.*

As part of the outreach provided by the DI Field Schools, various projects have been designed to support this activity in PY3 including; a community enterprise programme which provides small grants on a competitive basis to applicants who think of creative ways to improve their natural environment whilst generating an income.

#### *Activity 4.4. Monitor and evaluate changes in attitudes and behaviour towards conservation of different target groups.*

The project continues to administer pre and post training questionnaires. The answers to questionnaires collected during the pilot Ramadan Campaign provided information important for the questionnaire redesign. Also feedback from various trainings is showing an increase in knowledge (e.g. DI Nursery training showed a 45% increase in Guguk Malalo and a 40% increase in Pakan Rabaa). Results from the biodiversity training maintained strong levels of willingness pre and post to volunteer in conservation (95 %) and the belief that protecting the forest was important. However, there was an increase in understanding (from 61.2% to 85.2%) in the meaning of ecosystem services –an area which the project will continue to focus upon in all of its trainings.

#### *Activity 4.5. Exposure of Darwin Initiative regionally and nationally and internationally*

The project has continued to maintain a high profile in PY2 by being featured in a BBC World Service radio documentary series entitled 'The Climate Connection: Lost in Translation.' The piece aired in Indonesia on 16 December 2010 during primetime and was relayed by 100 local stations including Classy FM in Padang and also aired numerous times in the UK (30 December 2010 and 1-2 January 2011). An estimated 5.1 million Indonesians alone listen to BBC world service. Further, project exposure was gained via articles written for by the Oscar-nominated Ravenswood Media (subsequently picked up and distributed by the 'Forum on Religion and Ecology' at Yale University), a featured 'Notes from the Field' piece on FFI's website and articles in *EcolIslam* (the international IFEES newsletter) and *Tropika*, (CI-Indonesia's national magazine). All publicity pieces focused on promoting DI, the West Sumatra project and its partners. The DI pages on the University of Kent website have been kept regularly updated to include links to all articles, as does the newly created DI project Facebook page. Further, an online article in the UK's Science Daily featuring a personal expose on the DI PL included a reference to the DI project. The DI PO spoke about the project at an international conference (MACCA) in Indonesia. The DI PL and Mr Khalid (IFEES) gave a joint presentation, which highlighted the DI project, entitled 'The Carbon Footprint of Religion' at a meeting hosted by the Zoological Society of London (8 June 2010). The DI PL also presented the concepts and detail of the DI project as a guest of the Kent Interfaith Society where all major religious beliefs in the world were represented.

## **4.2 Progress towards project outputs**

### **Output 1. Multi-stakeholder governance framework for forest and ecosystem services established and active on the ground**

Community mapping of project sites was completed during the PRA activities and the project now has second draft maps designating both ecosystem service areas, which will aid in the overlay of potential Islamic management zones. This information will form part of the information required to support project *nagari* and local partner Qbar in establishing *Hutan Nagari* (Activity 1.1). This Output's assumption still holds true in that important ecosystem service areas have been identified, mapped and used as a foundation for implementing Islamic management systems on the ground.

## Output 2. Forest monitoring and protection systems and procedures strengthened and implemented

The biodiversity manual and training, as well as a rapid assessment and community patrolling training, have been completed in the two project *nagari* with materials provided to 16 participants including the Head of Forestry. This Output's assumptions still hold true: the target number of trainees depends on the number of Forestry staff and community members able to attend the training during the specified time and duration as well as the training materials produced must be clearly explained (theory) and utilised (practically) with ongoing follow up (both in training and in partnership development) provided by DI staff and partners.

## Output 3. Forest and ecosystem services and local livelihood opportunities enhanced

Both DI scholars have completed their coursework and are preparing their field research plans for the DI field sites. The draft research proposals were presented by the students to DI staff and local partners. The DI PL and PO have provided extensive comments on their research plans. The newly established DI Field Schools and associated tree nurseries and related trainings (nursery management, vegetative and generative plant reproduction, organic fertilizer composting and the production of organic fertilizers) and activities derived from them (community-based small enterprise competition, composting etc.) should empower key DI stakeholders (e.g. women's groups, farmer groups and *pesantren* students). 1,000 cacao seedlings were planted in the nurseries with a further 50 agar wood trees planted in 1 hectare of degraded land. Training and materials provide further community support to conserve biodiversity and ecosystem services (e.g. restoring a degraded watershed forest and buffering it with an agroforest). The Output's assumptions still holds true: an adequate numbers of seedlings were made available and sufficient numbers of community members attended each of the training workshops. Also, that the local communities continue to cooperate with one another to equitably share and manage their livelihood benefits.

## Output 4. Environmental conservation awareness and education raised and integrated within rural and urban communities and widely disseminated

In line with the indicators, existing partner training materials were adapted specifically for the DI project and trialled at the joint partner Ulama training workshop (13 participants). A joint DI partner biodiversity training workshop (58 participants), rapid assessment and community patrolling training (16 participants), 2 in-site PRAs (56 participants), community mapping exercises (50 participants), field school training (100 participants) and tree nursery training (73 participants) were also conducted. 1 national and international radio documentary, 1 national newsletter, 4 international newsletters, 1 FB page (>100 members) and 1 online UK newspaper article have discussed or mentioned the project. The project website (originally scheduled for PY3) continues to be updated regularly with links to the above publicity items. The assumptions still hold true: DI staff, project partners and collaborators must remain active and dedicated to the success of the project and DI staff must continue to proactively utilize as many mediums as possible to promote the aims and successes of the project.

### 4.3 Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Year 1 Total	Year 2 Total	Total to date	Number planned for reporting period	Total planned during the project
2	MSc qualification	0	0	0	0	4
3	Number of people to attain other qualifications (i.e. Not outputs 1 or 2 above)	0	1	1	0	1
4B	Number of training weeks to be provided	0	1	1	0	1
4C	Number of postgraduate students to receive training	2	2	4	1	4
4D	Number of training weeks to be provided	2	2	4	1	4
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	0	160	160	160	300
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	16	366	382	208	626
6B	Number of training weeks to be provided	1	3	4	2	6

Code No.	Description	Year 1 Total	Year 2 Total	Total to date	Number planned for reporting period	Total planned during the project
7	Number of (i.e. different types - not volume - of material produced) training materials to be produced for use by host country	0	3	3	2	3
8	Number of weeks to be spent by UK project staff on project work in the host country	4	6	10	6	14
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	0	0	0	0	1
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	0	1	1	1	1
11A	Number of papers to be published in peer reviewed journals	0	0	0	0	1
11B	Number of papers to be submitted to peer reviewed journals	0	0	0	0	3
14A	Number of conferences/seminars/workshops to be <b>organised</b> to present/disseminate findings	0	0	0	0	2
14B	Number of conferences/seminars/workshops <b>attended</b> at which findings from Darwin project work will be presented/disseminated.	2	4	6	1	3
15A	Number of national press releases in host country(ies)	0	0	0	0	1
15B	Number of local press releases in host country(ies)	2	1	3	1	4
16A	Number of newsletters to be produced	1	3	4	1	3
16B	Estimated circulation of each newsletter in the host country(ies)	<b>Tropika:</b> 1,500 Hard Copies ( <b>HCs</b> ) / 9,367 hits	<b>Tropika:</b> 1,500 HCs >11,000 hits	3000 HCs >20,00 hits	1,500 HCs / 9,367 hits	4,500 HCs/ 45,000 hits
16C	Estimated circulation of each newsletter in the UK	0	<b>IFEES x 2:</b> HCs:3,000 & >300,000 downloads <b>FFI:</b> Website: >1,000 hits, 4,400 newsletter subscriber s	7,400 HCs; >301,000 downloads	3000 HCs; >300,000 downloads	19,500 HCs /450,000 hits
17A	Number of dissemination networks to be <b>established</b>	0	1	1	0	1
18C	Number of local TV programmes/features in host country(ies)	1	0	1	0	1

Code No.	Description	Year 1 Total	Year 2 Total	Total to date	Number planned for reporting period	Total planned during the project
19A	Number of national radio interviews/features in host country(ies)	0	1	1	0	1
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	£0	£4,265	£4,265	0	£7,690
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased	0	2	2	2	3
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	0	2	2	2	3
23	Value of resources raised from other sources (i.e. in addition to Darwin funding) for project work	£37,950	£11,867	49,817	£0	£0

**Table 2 Publications**

Type (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Radio documentary	The Climate Connection: Lost in Translation, BBC World Service	BBC World Service, UK and Indonesia	UK: Julian Siddle Indonesia: Dewi Safriti	0
Newsletter article	Beliefs and Biodiversity, Rediscovering religion and conservation in Sumatra, J.E. McKay, Issue 11, November '10	Ravenswood Media, USA	David McGowan	0
Newsletter article	Same as above. **Please note** the above article was picked up and also published through Yale University's Forum on Religion and the Environment (FORE).	FORE News, California Institute of Integral Studies Forum on Religion and Ecology at Yale, USA	<a href="http://fore.research.yale.edu/news/item/beliefs-and-biodiversity-rediscovering-religion-and-conservation-in-sumatra/">http://fore.research.yale.edu/news/item/beliefs-and-biodiversity-rediscovering-religion-and-conservation-in-sumatra/</a>	0
Featured web story/ newsletter article	Notes from the Field: Integrating religion within conservation: Islamic beliefs and Sumatran forest management, J.E.McKay, November 2010	FFI, Cambridge, UK	<a href="http://www.fauna-flora.org/integrating-religion-within-conservation-islamic-beliefs-and-sumatran-forest-management/">http://www.fauna-flora.org/integrating-religion-within-conservation-islamic-beliefs-and-sumatran-forest-management/</a> ;	0
Newsletter article	Creating Environmental Awareness, J.E.Mckay, Issue No.07, April 2010	Ecolslam	<a href="http://www.ifees.org.uk/">http://www.ifees.org.uk/</a> ;	0
Magazine article	Melestarikan Hutan, Bersama Agama dan Masyarakat Adat Vol 14, no 3&4, Jul-Dec, 2010	Tropika, CI-Indonesia, Jakarta	<a href="http://www.conservation.or.id">www.conservation.or.id</a> ;	0
Online newspaper article	Conservationists Explore Relationship Between Religion and the Environment, December 16, 2010	Science Daily, UK	<a href="http://www.sciencedaily.com/releases/2010/12/101216111701.htm">http://www.sciencedaily.com/releases/2010/12/101216111701.htm</a>	0
Training manual	Biodiversity Training	DI & UNAND		540



	Manual		
Pamphlet	Ramadan Conservation pamphlets	DI & CI	150
Training module	Ulama Training Module	DI, CI-Indonesia	835
Report	PRA Report	Qbar & DI	400
Report	Field School and Nursery Reports	FFI & DI	750

#### 4.4. Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The project has reached its halfway point and so evidence documenting the project's impact on biodiversity trends is not yet available. However, the baseline data have been collected through the PY2 biodiversity surveys (Annex 3) conducted in the two DI *nagari* sites; both showed remarkably high level of species richness, especially considering that the surveys were conducted over only several days each. Results for all species (except mammals) were gathered through direct surveys & for the mammals, a combination of direct surveys and community interviews. *Nagari* Pakan Rabaa species: birds (71 incl. 15 Near Threatened); mammals (40, 5 Endangered and 1 Critically Endangered); plants (198 incl. the iconic *Rafflesia hasseltii suringar*, 8 Endangered) and fish (8, 1 Threatened). *Nagari* Guguak Malalo: birds (63, 4 Near Threatened), mammals (23 incl. the Critically Endangered Sumatran tiger and 5 Endangered), plants (141) and fish (8, 1 Threatened). This information will be used as baseline data and provided to BKSDA, the West Sumatra Forestry department and the CITES representative. Continuing partner and community commitments to the project's aims coupled with the successful implementation of various DI/partner training programmes and associated training materials, conservation campaigns and the construction of two DI Field Schools and tree nurseries continue to provide a positive indication towards progress being made against these goals.

#### 5. Monitoring, evaluation and lessons

The use of pre- and post-training questionnaires has ensured that ongoing training workshops are modified in such a way as to ensure maximum uptake by each of the target audiences and improvement of the training materials (which are trialled during the workshops before final drafts are produced and distributed). Further, the project benefits directly from annual partner assessments (via stakeholder meetings) which reinforces partner involvement in both the design and implementation of the work plans as well as a useful exercise for DI staff. Finally the project received an independent mid-term review (5-8th October 2010) that recommended a more integrated approach in project outreach and deliverables concerning biodiversity, ecosystem service, and religion and education activities. This recommendation has been incorporated within the design and remit of the DI Field School nurseries that are providing wider trainings and activities involving several local community groups (e.g. women's groups, farmer groups, religious leaders and forestry members) in multiple topics but which form one common conservation goal (e.g. protecting ecosystem services through sustainable agroforestry techniques and replanting on degraded lands). Further, these activities are now linked to specific outputs which will be included in the final DI book chapters. Another recommendation made was to carefully consider whether a third *nagari* is actually necessary considering: i) the significant investment made in selecting and establishing the project in the two present *nagari* and the limited time remaining; ii) that a suitable third *nagari* has still not been identified after several subsequent rounds of candidate *nagari* reviews; and, iii) that all field implementation targets are likely within the two focal *nagari*. So, the project is currently considering building upon the high level of trust and community support which exists in the two present *nagari* and, instead, training respective neighbouring *nagari* on-site.

#### 6. Actions taken in response to previous reviews (if applicable)

The project has formed a solid partnership with UNAND with the signing of a project-based MOU and subsequent collaborations on various training workshops and the production of a joint DI/UNAND biodiversity manual. At the community level, the DI project continues to work with local religious leaders (PRAs, workshops and Ramadan campaign); Women's and farmer groups (PRAs and via the biodiversity and nursery training workshops) and with the local religious schools (Ramadan campaign activities, seminars on conservation and via a conservation curriculum). From a governance perspective, the religious and customary leaders of both *nagari* have requested project and partner support to establish *Hutan Nagari* and remain active in their support of the Field Schools. Finally, the BBC documentary provided local community members and religious leaders in Guguak Malalo with a voice through personal interviews as well as recordings of several Ulama giving conservation-themed sermons in the local mosques.

The biodiversity survey training and community biodiversity assessment and patrolling training delivered to community partners and government forestry personnel are now complete, as is the production and dissemination of the biodiversity training manual and a list of mammal, bird, fish and plant species present in each nagari.

In addition to the summary of partner responsibilities (Section 3), in-country, the project is managed by the DI Project Officer who works in close collaboration with the DI Field Manager and two support staff members: a Biodiversity and Ecosystem Services Coordinator and a Religion and Education Coordinator (Terms of References are provided in Annex 3).

## **7. Other comments on progress not covered elsewhere**

Due to administrative changes in PY2, the University of Andalas cannot provide funds for an additional two MSc students. In response, both the DI PI and PO have made every effort (via personal interviews, Skype conference calls and multiple email exchanges) to find two Western students with existing funding and the relevant background and interest to conduct their MSc field work in the DI project sites with the project supporting in-country costs. Although two students were identified (one from the Leibnitz Centre of Marine Tropical Ecology in Bremen and the other from the University of Surrey), both students recently declined the opportunity (one due to a change in finances and the other due to a change in personal circumstances). The DI PL gave a presentation to the DICE 2010-11 MSc students but those that were interested in conducting research wished to focus on tiger research which is not a project priority and thus declined. As this does not meet the initial target of 4 students, the DI PL is currently investigating whether the project could support the research component of two other Indonesian students. However, the two current Indonesian DI scholarship students continue to make excellent progress both in their coursework and research designs-the results of which will be included in the book on Islam and Conservation (PY3). Therefore, given the multi-disciplinary research undertaken by the current students, whether an additional two students are actually required for PY3 is now also under consideration. It should also be pointed out that the total sum used in AYR1 for Table 1 (code 23) reflected the amount the project anticipated from partner match funding not the amount of additional funds the project anticipated to raise from other sources in addition to this. Other than endeavoring to do so, there was no specific amount in mind which makes the amount actually raised in both project years a positive measure of its success. This has been updated accordingly.

## **8. Sustainability**

The continued collaboration with the aforementioned organizations (Section 2) through individual and multi-stakeholder meetings, trainings and through direct project promotion (Table 2) has promoted the merits and innovative work of this DI project within Sumatra. Our DI project partners continue to support the development of a fully functioning conservation model which is culturally appropriate, effectively addresses regionally, nationally and internationally important environmental issues, and is transferable to other landscapes across Indonesia and beyond to other Muslim communities. Furthermore, the project continues to develop the conservation capacity of key partners (e.g. religious leaders, school teachers, forestry staff and local community members). Further support is provided via the distribution of comprehensive, peer-reviewed materials (e.g. Biodiversity Training Manual, Ulama Training module, Ramadan Conservation Curriculum) to reduce project dependency on individuals. At the project's culmination we will launch a book entitled "Islamic Guide to Conservation" that describes the Darwin outreach model in West Sumatra. This book will be written in collaboration with all of our partners. A draft book outline and timeline is already under partner discussion. In combination, these materials will empower our partners to deliver high-quality conservation outreach beyond the project lifespan, e.g. religious leaders in Friday prayer sermons and religious schools in their curriculum. Next, the project continues to invest in the training of Indonesian-based project staff and MSc students to become conservation leaders both locally within their communities and nationally within Indonesia. Finally, the project maintains its strong belief in supporting local partners to support themselves in solving conservation issues that are important to them. This has recently been applied to supporting a community led proposal for the implementation of *Hutan Nagari* (Section 4.1), mapping of local ecosystem services and the development of two *nagari* field schools and nurseries which support low-tech *nagari* field activities as well as a means to provide a sustainable source of income. These outputs greatly increase the likelihood of uptake during the project as well as to serve as a best management practice (BMP) pilot for future government replication elsewhere in west Sumatra. Regarding outputs in refereed journals; work cannot commence with earnest on this aspect until all data from the project is available. It is likely therefore that the anticipated articles will be completed and submitted during the final phase of the project.

## 9. Dissemination

It is anticipated that the training materials and modules will continued to be used by the project partners. The field nurseries are owned by the communities and it is anticipated that funds received from the trees and their products as well as continual partner support, will ensure their longevity. All project dissemination activities are listed below:

- **Muslim Action on Climate Change (MACCA) conference** Target audience: Indonesian religious scholars and conservation leaders representing 9 countries, members of the press, government agencies. 15 minute DI presentation: 100 people, project brochures distributed: 100 people.
- **The Carbon Footprint of Religion ( talk given at Zoological Society of London)** Target audience: ZSL staff, academic institutions and NGOs >100 attendees.
- **The Sumatran Rainforest and Climate Change (talk given at Padang State University, W. Sumatra)** Target audience: Academics, students >100 attendees
- **Ulama (Religious Leader) Training Workshop** Target audience: 13 representative Ulamas and Village leaders from urban and rural areas.
- **DI Ramadan Conservation Pilot Campaign** Target audience: 1,000 members of the local community. Seminars conducted at local religious high schools and directly within mosques (160 students). Ulama religion and conservation training module produced, 100 project brochures were disseminated and 200 Ramadan pamphlets produced and disseminated.
- **Project Field Site Participatory Rural Appraisals and community mapping** Target audiences: women's leaders, youth leaders, village heads, religious leaders and customary leaders, 56 attendees.
- **Biodiversity Training** Target audiences: Local community members, forestry staff. 58 copies participants and manuals distributed.
- **Biodiversity Rapid Assessment & Community Patrolling Training** Target audiences: local community members, forestry staff, 16 participants.
- **DI Field School Training** Target audiences: local community members, forestry staff. 100 participants.
- **DI Nursery Training** Target audiences: local community members, forestry staff. 73 participants.
- **Tropika article, Indonesia** 3,000 hard copies produced, >15,000 hits . Target audience: general public, local and international NGOs.
- **Ecolslam article (X2), UK** 3,000 hard copies produced, 150,000 downloads each issue. Target audience: general public, international NGOs & the Islamic community.
- **Ravenswood Media article, USA** E-newsletter: 800 subscribers, 1,500 hits (on first week of posting). Target audience: general public, international NGOs.
- **Fauna and Flora International, UK (at the time of the DI piece)** Website: 117,462 unique visitors. E-newsletter: >4468 subscribers. FFI Facebook (FB): 6,000 people "like" FFI's FB page (meaning they are followers of that specific posting). Target audience: general public, international NGOs.
- **BBC Radio (Indonesia & UK) > 3,000,000 listeners.** Target audience: general public, local and international NGOs, universities, local and national government.
- **DI Project Website** Target audience: Universities, General public, partners, NGOs and potential collaborators.
- **DI Project Facebook Page** >100 members. Target Audience: General public, DI partners & staff and potential collaborators.

## 10. Project Expenditure

**Table 3 project expenditure during the reporting period (1 April 2010 – 31 March 2011)**

Item	Budget	Expenditure	Variance/ Comments
Staff costs specified by individual			
Overhead costs			
Travel and subsistence			
Operating costs			
Capital items/equipment (specify)			
Others: Consultancy			
Others (please specify)			
TOTAL			

## 11. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for LTS and the Darwin Secretariat to publish the content of this section

The publicity generated for this project continues to surpass expectations. Of particular note was the excellent national and worldwide coverage from the BBC radio documentary entitled, *Climate Connections: Lost in Translation*, which aired in the UK and Indonesia. Of particular mention is a remark made by the Government of Indonesia's former Minister of Defense, Pak Juwono Sudarsono, to the BBC regarding the piece, "... your program from Lake Singkarak is very good, of very high quality". Further, Dewi Safriti, the producer for BBC Indonesia said, 'With too much media focus on politics and corruption, we look forward to supporting issues such as this and we thank you for accomodating us to do it.' Finally, David McGowan from the Oscar nominated Ravenswood Media Production said, 'it was our best newsletter so far'.

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2010-2011

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
<p><b>Goal:</b> To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</p> <ul style="list-style-type: none"> <li>⇒ The conservation of biological diversity,</li> <li>⇒ The sustainable use of its components, and</li> <li>⇒ The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>		<p>The DI Field Schools and nurseries are the first step to sustainable forest mgt, which will benefit biodiversity, and an all-inclusive approach (e.g. working with women's groups). This should ensure that the livelihood benefits generated are fairly distributed.</p>	
<p><b>Purpose:</b> Improve understanding amongst local and national stakeholders and enhance their capacity to conserve and manage forests, biodiversity and ecosystem services sustainably and equitably in West Sumatra.</p>	<p>Stakeholder understanding increased by 80% by Yr2. 100% of focal communities conserving forest and ecosystem services through ratified management plan, resulting in behavioural change by Yr3.</p>	<p>Training of local religious leaders &amp; Development of DI Field schools and nurseries &amp; Associated training</p> <p>Community mapping conducted and ground-truthed with GPS.</p> <p>Community natural resource use management plan in development</p> <p>Pre and post questionnaire surveys administered before and after workshops showed stakeholder understanding was significantly raised (e.g. from 35 % pre-training to 80% post nursery training ).</p> <p>Successful project promotion within local, national and international media and on the ground via community training workshops and outreach.</p>	<p>Ramadan Campaign 2011 will be main focus for religious leaders and training will be ongoing in the Field Schools with emphasis put on replanting in degraded land.</p> <p>The project will support our local communities and LSM to provide all of the necessary information to submit a request for <i>Hutan Nagari</i>.</p> <p>Focus will be put on completion of the DI book on Islam &amp; Conservation, drafting articles for scientific publication and finalising all training materials &amp; Ramadan conservation curriculum.</p>
<p>Output 1. Multi-stakeholder governance framework for forest and ecosystem services established and active on the ground.</p>	<p>Participatory land-use plan (with natural resources use, conservation and agroforest zones) and legally instituted framework (3 <i>nagari</i>, Yr3)</p>	<p>Participatory land-use plan developed; establishment of a legally instituted framework (<i>Hutan Nagari</i>) currently underway.</p>	
<p>Activity 1.1. Establish and support an operational governance mechanism for forest management throughout the project</p>		<p>At the communities' request, the DI staff and local NGO partner Qbar are providing support for the establishment of a customary forest governance system (<i>Hutan Nagari</i>) that will adopt the Islamic (<i>Hima</i>) management system and serve as a BMP pilot for future government replication in W. Sumatra. DI MSc research projects (2) will provide academic input by focusing on: i) The Interaction between State and Living Law (Islamic Law and Adat Law) on Natural Resource Management; and, ii) The Role of Religious Leaders in Natural Resource Management.</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
Output 2. Forest monitoring and protection systems and procedures strengthened and implemented.	1 field survey monitoring manual produced, distributed and used to train 30 community and 6 Dept. Forestry rangers (25% female, Yr1). 18 joint community/Dept. Forestry protection and monitoring patrols in forests produce baseline data (Yr1) and monitoring data (Yrs 2&3).	1 training courses and 1 manual produced and distributed to 56 community members including 3 Dept of Forestry rangers (1 female). Biodiversity monitoring patrols (16) including 2 Forestry Rangers (1 female) have produced baseline monitoring data.	
Activity 2.2. Facilitate training and participatory mapping of traditional land-use and natural resource management system		PRA community mapping exercises were used to create ecosystem service maps for each nagari which were then ground-truthed through 115 data points for Guguk Malalo and 140 data points for Pakan Rabaa which will provide the spatial data for <i>Hutan Nagari</i> (Activity 1.1).	
Activity 2.3. Train and support local forest and biodiversity monitoring		3 day biodiversity training courses and manual produced for local communities and local and government agencies (58 participants in both project sites). Separate rapid biodiversity assessment and community patrolling training were conducted over 3 days in each <i>nagari</i> (16 participants).	
Activity 2.4. Train local and provincial forest staff on community-based partnership in forest management		See above	
Activity 2.5. Drafting and signing of local conservation management agreements		Scheduled for PY3. All supporting data will continue to be compiled and/or produced to support the information necessary for this process.	
Output 3. Forest and ecosystem services and local livelihood opportunities enhanced.	4 Sumatran MSc students (50% female) complete first-class (>70%) research on agroforestry, forestry, and ecosystem services, livelihood benefits assessed in 3 <i>nagari</i> (Yr2). 3 Darwin Field Schools & nurseries established & locally managed in 3 <i>nagari</i> (Yr2), with >75 villagers trained in arboriculture/agroforestry;	2 Sumatran MSc students have nearly completed coursework with field research anticipated to begin in DI sites (May/June, 2011). 2 Darwin field Schools and nurseries established and locally managed with >75 villagers trained.  The establishment of and training conducted in field schools and nurseries are designed to empower key local stakeholders to begin receiving livelihood benefits through delivering support to biodiversity and ecosystem services (e.g. managing the nursery independently and receiving alternative sources of income from NTFPs such as cacao (e.g. 1,000 seedlings planted in nurseries) and other high income yielding trees (e.g. 50 agar trees planted in 1 hectare of degraded land) which are in line with sustainable forestry and restoring a degraded watershed forest and buffering it with an agroforest. PY3 will focus upon planting in degraded areas.	
Activity 3.1. Establish Darwin field schools with community managed tree nurseries	Darwin Field schools and nurseries have been established and are under community management.		
Activity 3.2. Support reforestation and rehabilitation on degraded land	Training conducted in both field schools and nurseries focused upon identification of land suitability, nursery management including plant care, organic composting and pesticide production and natural resource management based on the Islamic principles with a special focus on <i>Ihya Al-Mahwat</i> (rehabilitation of degraded land).		

Project summary	Measurable Indicators	Progress and Achievements April 2010 - March 2011	Actions required/planned for next period
Activity 3.3. Research into forest ecosystem services	Community mapping exercises and the subsequent ground-truthing for GIS purposes has resulted in an ecosystem map for each <i>nagari</i> . These maps will also be provided to both DI/UNAND scholarship students to aid in their project research as well as form part of the information required to establish Hutan Nagari in both project sites.		
Output 4. Environmental conservation awareness and education raised and integrated within rural and urban communities and widely disseminated.	<p>Religion and conservation material produced and revised by Yr2, &gt;50 rural religious &amp; &gt;40 urban school teachers, delivered to 20+ urban schools (&gt;300 pupils) &amp; &gt; 3 rural <i>nagari</i> (&gt;500 villagers).</p> <p>100% of target schools (20) using Darwin curriculum in teaching, 20 local environmental projects designed and implemented.</p> <p>3 regional press, coverage in 4 international newsletters (reaching &gt;12,000 people/yr), 1 international conference attended, 1 scientific publication, 1 project website (Yr3)</p>	<p>Ramadan curriculum from PY2 pilot campaign provided to 160 students and revised in preparation for PY3. These materials will be given to all participating rural and urban schools. Environmental outreach seminars and training provided in 2 rural <i>nagari</i>. Friday prayer sermons given by religious leaders over the month of Ramada reached &gt; 1,000 rural and urban community village members.</p> <p>BBC World Service (WS) radio documentary series (relayed by 100 local and national stations and several times in the UK, reaching &gt;3 million listeners. Newsletter articles (4), FFI's website (1), UKC website (1), Facebook page (1), newspaper article (1); international conference (1), UK presentations (2). PY3 will focus upn the DI book on religion and conservation and preparing information for journal submission.</p>	
Activity 4.1. Formalise a religion and environmental conservation curriculum and train religious, traditional and village leaders for rural outreach	Ulama training workshop conducted for religious, traditional and village leaders from both project sites. A religious leaders training module was designed and adapted based on feedback received from the workshop participants. A religion and conservation curriculum has been developed for local religious schools (see below).These materials will be used in PY3 Ramadan campaign.		
Activity 4.2. Develop and formalize school curriculum on a religion and environmental conservation and train teachers and religious leaders for urban outreach	A conservation themed curriculum for religious high schools was piloted during the Ramadan campaign PY2. Sermon guidelines were developed for local <i>Ulamas</i> to deliver conservation messages which trialed in nine mosques (2 conservation-themed religious bulletins were produced which will be expanded upon for a conservation curriculum designed specifically for <i>pesantrons</i> in preparation for the next Ramadan Campaign (August 2011).		
Activity 4.3. Deliver outreach in urban and rural communities, and support delivery of local environmental projects	DI Field Schools have provided outreach and training which will continue into PY3 with a community enterprise programme which provides small grants on a competitive basis to applicants who think of creative ways to improve their natural environment whilst generating an income.		
Activity 4.4. Monitor and evaluate changes in attitudes and behaviour towards conservation of different target groups	4 pre- and post-test questionnaires produced and recieved from 3 target group (community members, students, religious & customary leaders, Forestry staff)). Continual feedback on materials produced through multiple partner meetings and workshop training questionnaires.		
Activity 4.5. Exposure of Darwin Initiative regionally and nationally and internationally	BBC World Service (WS) radio documentary series (relayed by 100 local and national stations and several times in the UK. Newsletter articles (5), UKC website (1), Facebook page (1), newspaper article in the UK's Science Daily (1); international conference (1), UK presentations (2).		

## Annex 2 Project's full current log frame

### LOGICAL FRAMEWORK

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Goal:</b> Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p><b>Sub-Goal:</b> West Sumatra's biodiversity-rich forests are effectively managed and conserved through a faith-based conservation initiative that provides sustained ecosystem services to local communities.</p>	<p>100% of focal communities sustainably managing forest areas at project end.</p> <p>Forest cover mapped (Yrs1 &amp; 3) and showing 95% of project area still intact.</p>	<p>End of project M&amp;E report.</p> <p>GIS/satellite image data comparisons.</p>	
<p><b>Purpose</b> Improve understanding amongst local and national stakeholders and enhance their capacity to conserve and manage forests, biodiversity and ecosystem services sustainably and equitably in West Sumatra.</p>	<p>Stakeholder understanding increased by 80% by Yr2. 100% of focal communities conserving forest and ecosystem services through ratified management plan, resulting in behavioural change by Yr3.</p>	<p>M&amp;E report from knowledge and attitude questionnaire surveys, annual spot check field assessments/audits. M&amp;E report using conservation behaviour indicators.</p>	<p><i>Project aims, objectives and activities are unambiguously explained to stakeholders. Partners commit to fulfill project objectives within agreed timeframe and management plan.</i></p>
<p><b>Outputs</b> 1. Multi-stakeholder governance framework for forest and ecosystem services established and active on the ground.</p>	<p>Participatory land-use plan (with natural resources use, conservation and agroforest zones) and legally instituted framework (3 <i>nagari</i>, Yr3).</p>	<p>Summary of legislation, legal documents, supervision reports, reports on participatory mapping and GIS maps.</p>	<p>Critically important areas identified, e.g. watershed forests. Co-operative relations between stakeholders are developed to ensure effective and equitable partnership.</p>
<p>2. Forest monitoring and protection systems and procedures strengthened and implemented.</p>	<p>1 field survey monitoring manual produced, distributed and used to train 30 community and 6 Dept. Forestry rangers (25% female, Yr1).</p> <p>18 joint community/Dept. Forestry protection and monitoring patrols in forests produce baseline data (Yr1) and monitoring data (Yrs 2&amp;3).</p>	<p>Field training manual, reports on training and M&amp;E of field teams, annual assessment reports from field co-ordinators.</p> <p>Patrol reports, wildlife, threat and GIS/satellite image data stored and analysed within database, threat and species trends identified.</p>	<p>Adequate number of trainees is available to represent each village. Representatives complete training, data collection techniques are understood and practiced.</p> <p>Patrols focus on critically important watershed forests, Dept. Forestry and project staff foster and maintain goodwill within communities and sufficient high-quality data collected.</p>



Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>3. Forest and ecosystem services and local livelihood opportunities enhanced.</p>	<p>4 Sumatran MSc students (50% female) complete first-class (&gt;70%) research on agroforestry, forestry, and ecosystem services, livelihood benefits assessed in 3 <i>nagari</i> (Yr2).</p> <p>3 Darwin Field Schools &amp; nurseries established &amp; locally managed in 3 <i>nagari</i> (Yr2), with &gt;75 villagers trained in arboriculture/agroforestry.</p> <p>Agroforest systems of native and commercially important species reforested/replanted in &gt;300 ha in 3 <i>nagari</i> (Yr3).</p>	<p>4 dissertations from Uni. Andalas MSc programmes on 'Gender and Forest Management', 'Water Resource Management' and 'Forestry'.</p> <p>Agroforestry needs assessment report, and bi-annual assessments, monthly community M&amp;E reports on species productively.</p> <p>Assessment report by Uni. Andalas on trained nursery officers (3), planting, crop yields and economic evaluation of agroforestry benefits.</p>	<p>Adequate number of representative and qualified graduates is available for selection and completes their studies.</p> <p>Sufficient number of community members attend training. Local communities cooperate with one another to equitably share and manage the livelihood benefits.</p> <p>Adequate numbers of seedlings available and planted according to management plan.</p>
<p>4. Environmental conservation awareness and education raised and integrated within rural and urban communities and widely disseminated.</p>	<p>Religion and conservation material produced and revised by Yr2, &gt;50 rural religious &amp; &gt;40 urban school teachers, delivered to 20+ urban schools (&gt;300 pupils) &amp; &gt; 3 rural <i>nagari</i> (&gt;500 villagers).</p> <p>100% of target schools (20) using Darwin curriculum in teaching, 20 local environmental projects designed and implemented.</p> <p>3 regional press, coverage in 4 international newsletters (reaching &gt;12,000 people/yr), 1 international conference attended, 4 scientific publications, 1 project website (Yr3)</p>	<p>Production of 1 teacher's handbook, 1 education curriculum and 1 book on Islam and conservation.</p> <p>Pre-and post questionnaire surveys on religion and conservation (rural and urban schools).</p> <p>Newspaper clippings, copies of newsletter and published articles, number off hits on website.</p>	<p>Religious leaders remain active in relevant positions village committees, school committee members, outreach focuses on relevant themes, e.g. ecosystem services and benefits.</p> <p>Feedback from recipients is received and incorporated into outreach material. Schools continue to use project teachings within curriculum and independently develop these.</p> <p>Awareness campaign launch well co-ordinated and local media are engaged and provide project coverage/promotion to the public.</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Activities</b> (details in work plan)</p> <ul style="list-style-type: none"> <li>1.1. Establish and support an operational governance mechanism for forest management</li> <li>2.1. Community training workshops to raise awareness, involve stakeholders and build a locally managed conservation dynamic</li> <li>2.2. Facilitate training and participatory mapping of traditional land-use and natural resource management system</li> <li>2.3. Train and support local forest and biodiversity monitoring</li> <li>2.4. Train local and provincial forest staff on community-based partnership in forest management</li> <li>2.5. Drafting and signing of local conservation management agreements</li> <li>3.1. Establish Darwin Field Schools with community managed tree nurseries</li> <li>3.2. Support reforestation and rehabilitation on degraded land</li> <li>3.3. Research into forest ecosystem services</li> <li>4.1. Formalise a religion and environmental conservation curriculum and train religious, traditional and village leaders</li> <li>4.2. Develop and formalize school and university curriculum on a religion and environmental conservation</li> <li>4.3. Deliver outreach in urban and rural communities, and support delivery of local environmental projects</li> <li>4.4. Monitor and evaluate changes in attitudes and behaviour towards conservation of different target groups</li> <li>4.5. Exposure of Darwin Initiative regionally and nationally and internationally</li> </ul>			
<p>Monitoring activities:</p> <p>Training and workshop reports from trainers and trainee/participant feedback will be used to monitor the delivery and effectiveness of Activities 1.1, 2.1-2.4, 3.1 and 4.1-4.2. Forest cover and biodiversity survey data will be collected and analysed to measure trends. Project impact on changing attitudes, knowledge and behaviour will be rigorously addressed through Activity 4.4. The Project Officer will compile all publications and press releases to monitor exposure of Darwin identity (#4.5).</p>			

**Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

- 1) Selection of Project Photos (e versions)
- 2) Site Maps (e versions)
- 3) Ecolslam newsletter article (e version)
- 4) DI Nursery training report (e version)
- 5) Project Site Species Lists (e versions)
- 6) 3 DI Field Staff TORs (e versions)
- 7) ZSL Flyer (e version)

**Checklist for submission**

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	√
<b>Is your report more than 5MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	N/A
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	√
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	N/A
Have you involved your partners in preparation of the report and named the main contributors	√
Have you completed the Project Expenditure table fully?	√
Do not include claim forms or other communications with this report.	