



Capacity building to enhance Marine Protected Area effectiveness

Final Report

1st April 2008 – 31st March 2011



Darwin Initiative

Final Report

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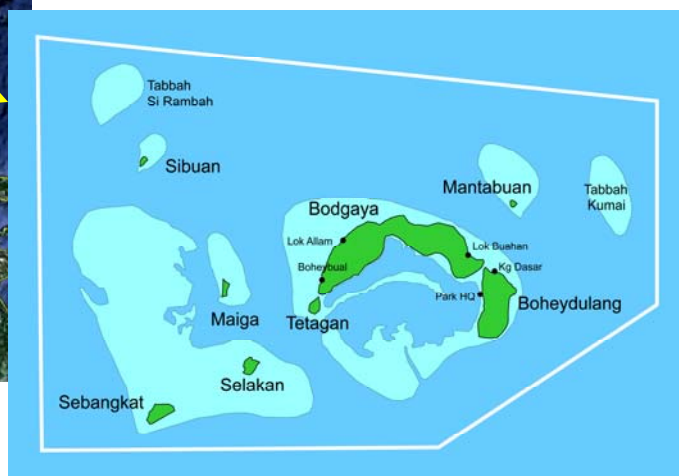
Darwin Initiative – Final Report

Darwin project information

Project Reference	EIDPO025
Project Title	Capacity building to enhance Marine Protected Area effectiveness
Host country(ies)	Malaysia (Sabah)
UK Contract Holder Institution	Marine Conservation Society
UK Partner Institution(s)	N/A
Host Country Partner Institution(s)	Sabah Parks
Darwin Grant Value	£120,000
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Project Leader Name	Dr Elizabeth Wood
Project Website	www.sempornaislandsproject.com
Report Author(s) and date	Dr Elizabeth Wood, Dr Maklarin Lakim October 2011

1. Project Background

This project followed on from the main Darwin Project (2005-2008) that was entitled ‘*Community Action for Sustainable Use and Conservation of Coral Reefs*’. Significant progress was made during this project but it was agreed that more still needed to be done to promote biodiversity conservation, tackle the long history of overfishing and destructive fishing, and address other management issues in the Tun Sakaran Marine Park. The Park was gazetted in July 2004, is Malaysia’s largest marine protected area and the only one with a resident local community. It is situated offshore from Semporna in Sabah and covers 340km² of sea and coral reefs, 10km² of land and 8 islands.



Tun Sakaran Marine Park, Sabah

The aim of this post project was to develop and carry out programmes that were identified in conjunction with Sabah Parks as being of particular benefit in addressing some of the on-going challenges of managing the Tun Sakaran Marine Park. It was agreed that concerted action was needed to ensure that the proposed no-take zones became widely recognised and fully supported. These areas are intended to support biodiversity conservation and promote recovery of over-exploited marine resources. Enforcement is difficult in such a large MPA with limited staff resources and the support of local communities is vital. Sabah Parks is short of trained staff to deliver a community and outreach programme within the Park, and one of the aims of the Darwin post project was to assist by helping to develop and run the programme and enhance the capacity in Sabah Parks to carry out this type of work in the future.

It was also considered important to support the introduction of the no-take zones by expanding and diversifying the alternative livelihoods programme. The aim of this was to reduce fishing pressure and dependence on marine resources. Opportunities exist to diversify into reef tourism and one of the aims was to work with local communities and Park staff to pinpoint options and develop at least one pilot tourism-related alternative livelihood scheme.

Another challenge to be addressed by the project was the shortage within Sabah Parks of staff with a working knowledge of marine biodiversity (basic taxonomy and ecology) and the lack of educational and interpretive resource material for the Park. Our aim was to help fill these gaps by running field training courses in marine biodiversity for Parks staff at all levels.

Summary: Project purpose and outputs from Project logframe

Purpose

The project purpose is to ensure that biodiversity conservation and sustainable use goals for the Tun Sakaran Marine Park are met.

Outputs:

- 1) Public and other stakeholders with enhanced understanding of biodiversity and sustainable use.
- 2) Sabah Parks staff with increased capacity to run outreach programme.
- 3) Sabah Parks staff trained and their capacity to carry out reef and MPA research, monitoring and management enhanced.
- 4) Scope and effectiveness of alternative livelihoods programme enhanced.

Outstanding achievements of the project.

We would like to highlight the following two achievements:

- 1) The *Biodiversity Training Courses*. These engaged over 40 Sabah Parks staff in field activities ranging from pressing seaweeds to identifying corals. The Coral Training Courses were particularly inspirational because new skills were acquired and the participants greatly enhanced their ability to identify this taxonomically-challenging but critically important group of animals.
- 2) Production of an 8-minute DVD produced in collaboration with Sabah Parks which was shot on location and includes interviews with key stakeholders to highlight issues such as the 'no-take' zones and the need to work together to eliminate fish bombing. The DVD – entitled *Tun Sakaran Marine Park: Protecting reefs and supporting livelihoods* was produced in English, Bahasa Malaysia, Bajau, Suluk and Chinese, with all 5 languages versions on one CD, making it easy and convenient to pick the relevant version for the audience.

2. Project support to the Convention on Biological Diversity (CBD)

The post project supported Sabah's commitments to the CBD during its lifetime and also helped Sabah Parks to build their capacity to meet CBD commitments into the future. It also contributed towards the 2010 Biodiversity Target to reduce biodiversity loss.

Malaysia's 'National Policy on Biological Diversity', launched in 1998, highlighted over-fishing and destruction of coral reefs as major sources of biological diversity loss and called for action to address these problems. The project dealt directly with these issues. It also supported the commitment made by Malaysia at the CBD COP7 meeting in 2004 when the government, together with Indonesia and the Philippines, signed a ministerial-level agreement to establish a network of marine protected areas in the Sulu-Sulawesi Marine Ecoregion. The Post Project focused on the Tun Sakaran Marine Park, which is situated in this region and is a key part of Malaysia's CBD strategy.

With regard to specific articles in the CBD, the project helped in several ways. Under general measures for conservation and sustainable use (Article 6) it contributed to the objective to 'ensure preservation of the unique biological heritage of the nation and to enhance scientific and technological knowledge...of biological diversity'.

At State and local level, the project contributed to in-situ conservation (Article 8) by promoting protection of habitats and recovery of degraded reef ecosystems within the Tun Sakaran Marine Park particularly through measures to combat destructive fishing and support for effective implementation of Conservation (No-take) Zones within the Park.

During the course of the project, an investigation was carried out into the capture and grow-out of fish (especially groupers) in cages by the local community. Guidelines for management of this activity were produced which will assist Sabah Parks to adopt measures to avoid or minimise adverse impacts on biological diversity (Article 10: sustainable use).

With regard to biodiversity conservation and sustainable use of resources, the project looked at opportunities for alternative livelihoods that encouraged a shift away from reliance on direct utilisation of marine resources (Article 11, Incentive Measures). Engagement and discussion with stakeholders provided a number of options which can be carried forward. The project also undertook a study into 'willingness-to-pay' for entry and diving in the Park as part of the long-term plan to generate revenue from tourism that would provide incentives for conservation (Article 11).

In relation to Article 12 (Research and Training) the project delivered training courses in marine biodiversity and identification which significantly increased knowledge and skills within Sabah Parks and enhanced their capacity to better understand and manage Park resources. The project also supported research into breeding of endangered giant clams for long-term conservation benefits. A significant contribution was made under Article 13 (Public Education and Awareness).

The project supported the thematic programme on 'Marine and Coastal Biodiversity' through work on integrated marine and coastal management, marine living resources, marine protected areas and mariculture.

The project also contributed to the following cross-cutting issues:

- a) Communication, education and public awareness
- b) Identification, monitoring, indicators and assessments
- c) Protected areas
- d) Sustainable use of biodiversity,
- e) Tourism and biodiversity.

3. Project Partnerships

The **Marine Conservation Society** and **Sabah Parks** were the two main partners and worked closely together to deliver the project outputs. MCS was responsible for overall project management and was actively engaged in the development of awareness, interpretive and display materials, organising training courses and developing the alternative livelihoods scheme. Sabah Parks was involved in joint project planning and in all the activities. Sabah Parks also provided logistical support, particularly boat transport and field accommodation.

An **MoU** was established at the start of the project and this defined the roles of the partners and the job descriptions of the two project staff who were placed with Sabah Parks. Both partners benefitted from the close relationships and mutual trust that have developed over long-term collaboration on this and previous projects.

There was very regular communication between the project team and Sabah Parks by a mixture of e-mail, text, phone, skype and face-to-face discussions and meetings. In addition, formal management meetings were held 3-4 times a year at Sabah Parks HQ in Kota Kinabalu to discuss project progress. These meetings were attended by the Project Team and senior management staff from Sabah Parks, usually including either the Director or Deputy Director, Assistant Director(s), senior Administrative staff, Tun Sakaran Marine Park Manager and Marine Unit staff. Project staff presented progress reports and there were wide-ranging discussions and agreed action points. Minutes of the meetings are available.

The project worked with a number of other organisations and initiatives that operate within Sabah and have similar or complimentary work programmes. For example, we collaborated with the **Global Diversity Foundation (GDF)** and their Darwin Initiative Project in Sabah (Ulu Papar) on topics relating to community engagement in conservation and ecosystem management. The community researchers involved in the GDF project plan to run a series of community roadshows in the coming year and recently invited SIDP to share our knowledge of planning and undertaking such events, based on our experiences with the Coral Seas Roadshow. This led to a one-day workshop for 16 participants from GDF and SAWO (Sabah Women's Action Resource Group) which generated useful discussions about outreach planning and the types of activities that help to communicate environmental messages.

The project exchanged ideas and discussed work plans on a fairly regular basis with **World Wildlife Fund Malaysia (WWFM)**, who have staff based in Semporna working on the Semporna Priority Conservation Area. One of our project staff was invited to attend as a facilitator at a WWFM workshop on Environmental Leadership and Stewardship held in Kudat and we also contributed to a workshop on: '*Access and Use of Natural Resources by Indeterminate Peoples in Semporna*' and to another on the development of a '*Marine Environmental Education Module*' for Sabah. WWF and also **Reef Check Malaysia** joined the SIDP Coral Seas Roadshow team, and some of the components from this Roadshow have subsequently been used for outreach events in West Malaysia.

We also collaborated with **Scubazoo** in Sabah on the production of a new 8-minute educational DVD entitled *Tun Sakaran Marine Park: Protecting reefs and supporting livelihoods* (copy sent separately). This was partly sponsored by the **Ministry of Tourism, Culture & Environment**.

In the UK, the project collaborated with the **University of Newcastle** on a research programme to promote better understanding of biodiversity and reef management issues. The research was undertaken by a Masters Student from Newcastle (Jennifer Miller) who led the study and taught Sabah Parks Marine Unit staff how to recognise and record coral diseases and other causes of coral stress and mortality.

For the second Biodiversity Training Course SIDP collaborated with the **Coral Identification Capacity Building Program (CICB)**, based in Townsville, Australia to run a 'Coral Finder Workshop' – the first of its kind in Malaysia. Further details of this are in Section 4.3.

The meetings and collaborations described above have provided opportunities to share knowledge and ideas and discuss options and effective strategies for addressing key issues such as resource management, biodiversity conservation and local community involvement.

4. Project Achievements

4.1. Impact: achievement of positive impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The project had both direct and indirect positive impacts on biodiversity, sustainable use and equitable sharing of biodiversity benefits.

One of the most important impacts achieved over the life-time of the post project was the strengthening of support and effective protection for the Biodiversity Conservation Zones (No-take zones) in the Park. Establishment of reserves or no-take zones in the marine environment is widely considered to be one of the most effective ways not only of protecting biodiversity but also supporting fisheries in adjacent areas.

Through the outreach programme carried out under the project people became better informed about the location and benefits of the no-take zones in the Park and the need to tackle destructive fishing. Target audiences for the outreach programme included local communities living in the Park and on the mainland and islands round the Park, visitors (local, national & international), tour operators and the Army and Police Units that are established in the Park for national security but knew very little about the area and its management.

We received positive feedback and pledges of support to help protect biodiversity from many sectors – including local communities living within the Park boundaries, tour operators and schools. People expressed their concern about issues such as litter and destructive fishing and were keen to support measures that tackled these problems. The need for no-take (Conservation) Zones was quite widely understood, but there remain some difficult issues with the Bajau Laut community that still have not been resolved. This is discussed in more detail in Section 4.3.

The awareness campaign was accompanied by increased surveillance by Sabah Parks in an effort to enforce the no-take zones and catch or deter fish bombers. There are signs of increased fish populations at one or two key sites which need to be verified and monitored but hopefully signify the start of recovery of biodiversity after many years of decline.

Importantly, Sabah Parks were involved in all the outreach activities, from the planning stages through to implementation on the ground. As a result, capacity has been built within the organisation to expand and extend marine awareness programmes for the Tun Sakaran Marine Park and other marine protected areas. To aid in this process and provide guidance for the future, a 'Public Awareness and Mutual Learning Strategy and Action Plan' was produced as one of the project outputs (Annex 5).

Capacity was also built within Sabah Parks to better understand marine biodiversity, and be able to effectively carry out research and monitoring and apply the findings to Park management. This was achieved through the Biodiversity Training Courses and joint research programmes described in more detail in section 4.3. Feedback from both the introductory and advanced training courses showed that participant's knowledge increased significantly (see workshop reports for more detail) and that they were able to apply what they learnt in the classroom to identify marine life in the field. A set of marine life reference and identification books, including 20 'Coral Finder' field guides, were donated to the Marine Unit at Sabah Parks in Semporna so that staff can continue to extend their knowledge and skills. This increased capacity within Sabah Parks and should help to build a solid base for study, monitoring and conservation of biodiversity now and well into the future.

Through the Darwin project, a Masters student from Newcastle University (Jennifer Miller) visited Sabah (June 2010) and undertook a 3-week research and training programme with Sabah Parks Marine Unit. The aim of the project was to a) train Sabah Parks field staff to recognise and survey for coral diseases and b) to carry out field research with them in three of the Marine Parks (including Tun Sakaran Marine Park) to investigate links between coral

disease, environmental stress and water quality. This was an important capacity- building exercise and means that Sabah Parks now have baseline data and the ability to monitor reef health more effectively. A poster illustrating the diseases commonly encountered was produced as one of the outputs from this project.

In addition, the Project Manager (EW) was invited by Sabah Parks to act as team leader for a 4-day study to assess the status of the coral reef at Pulau Sipadan. This provided further capacity building within Sabah Parks, including an introduction to some of the methodologies for assessing reef resilience. It is particularly important to have a better understanding of the ability of reefs to recover from events such as warm water / coral bleaching episodes (a severe episode occurred locally in June – August 2010).

A measurable positive impact on biodiversity was the re-introduction onto the reef of large numbers of cultured giant clams *Tridacna derasa*. All giant clam species are listed in Appendix II of CITES and *T. derasa* is listed as vulnerable on the IUCN Red List of endangered species. This species is thought to have a restricted distribution in Sabah (east coast only) and is very rare due to over-exploitation. Only one or two specimens existed in the Tun Sakaran Marine Park, but, as part of the alternative livelihoods programme (see below), several thousand juveniles have been produced at the Park hatchery. A proportion of these young clams have been re-introduced to one of the no-take reefs in the Park and provide a positive example of how biodiversity loss can be reversed. Sabah Parks intend to continue with this programme and expand it to include other species.

We are confident that the alternative livelihoods element of the project will also have long-term positive impacts on biodiversity and sustainable use and equitable sharing of biodiversity benefits. Progress was made towards the end goal, for example by facilitating the establishment of a Homestay Group, working towards the establishment of an invertebrate sea-ranching programme and producing a strategy for further developing alternative livelihoods in Tun Sakaran Marine Park.

An analysis of opportunities, progress and strategies for the alternative livelihood programme in Tun Sakaran Marine Park was produced after discussion and feedback with stakeholders and is intended to help stimulate and guide further development of a number of programmes (see Annex 5).

4.2. Outcomes: achievement of the project purpose and outcomes

The overall purpose of the post project was to ensure that biodiversity conservation and sustainable use goals for the Tun Sakaran Marine Park are met. This long-term goal is enshrined in the Management Plan and it is clear that the project made a significant contribution. However, it is important to recognise that this is part of an on-going process and that continual input and effort will be required from the management authority, local communities, NGOs, private sector and other stakeholders.

One of the most important outcomes of the project has been to increase knowledge about marine biodiversity within Sabah Parks. As explained more fully in section 4.1., staff not only have a better understanding of marine biodiversity and its relevance but also now have access to a suite of reference and field identification guides that were provided through the project.

It was also evident from the outreach programme run by the project that local communities are responding in an increasingly positive way to the marine park and can see that if the environment and reefs are cared for then there will be new opportunities to become involved in livelihoods such as tourism that can bring long-term economic benefits.

4.3. Outputs (and activities)

There follows below an assessment of the success of the project in achieving the outputs as presented in the Logical Framework. A summary of the outputs and activities is provided in Appendix 1.

Output 1: Public and other stakeholders with enhanced understanding of biodiversity and sustainable use.

In order to increase public understanding and support for biodiversity conservation we needed to reach a wide variety of people who interacted with the Park in diverse ways and had different levels of knowledge and understanding. At the outset of the project we met with individuals and groups from the potential target audiences in order to gauge what type of approach might be the most effective and how we could also encourage a two-way exchange of ideas and experiences. We also used our existing knowledge of local communities and other stakeholders to help in the planning processes.

A number of strategies were employed in the outreach programme. Firstly, we ran two 3-week long '*Coral Seas Roadshows*' which were targeted at communities living in or using the Park and local schools in the Semporna area. We also took the Roadshow to Kota Kinabalu on the west coast in order to reach new audiences and provide Sabah Parks staff from west coast marine parks the opportunity to be involved in outreach activities. In total, the Roadshow reached nearly 8,000 school children and 800 members of the public from the mainland and from islands inside and outside the Park.

The main aim of the Roadshow was to raise awareness about the value of coral reefs and their resources and the steps that can be taken to promote conservation and minimise impacts to marine ecosystems and wildlife, for example through protected areas such as the Tun Sakaran Marine Park. Its' interactive and lively format proved to be an excellent way of involving and informing audiences and also was a good way of building closer relationships between Sabah Parks and the local community. Feedback showed that the Roadshow enhanced people's knowledge and appreciation of marine life and got them to think about issues such as over-fishing, destructive fishing and litter (further details are in the Roadshow reports, Annex 5).

The Roadshows held on the islands were particularly important in reaching out to local communities, including the Bajau Laut, who are the main users of natural resources in the area, especially marine resources. For this reason we also held focus group meetings with the Bajau Laut in order to promote discussion and get a better understanding of their relationship with the Park. Integration of this group into the Park remains a challenge, partly due to complex issues relating to their 'indeterminate' status and also because of the way that they traditionally use the sea and its resources. We learnt from meetings and discussions that they felt that the increase in number of fishermen was making it more difficult to find enough fish but even so their philosophy was that 'nature will provide'. They were not in favour of additional no-take areas to protect and enhance stocks as this would have a negative impact on their livelihoods, and some said that they would have to move out of the area.

Another outreach activity that we carried out with the Bajau Laut was a *Community Marine Life Appreciation Art Workshop* at Pulau Sibuan. This had a dual role – one aim was to engage further with the Bajau Laut and the other was to introduce the idea of how a community activity could be developed into a small enterprise for economic benefits. This is discussed further in the report of the workshop and the alternative livelihoods report (Annex 5). We also took seven members of the Bajau Laut community from Pulau Sibuan on a one-day visit to a neighbouring tourist island for the '*Pulau Matakang Reef Check and Reef Day*'. This was the first time that Community members living in the Park had visited a tourist/dive resort and in addition to participating in a beach clean and helping to promote sale of the art postcards to the resort shop, the group got an insight into the potential benefits of reef tourism for local communities.

Art was also used to involve and engage the community at Pulau Selakan – the main island in the Park. The project provided paints and brushes and with help from a Japanese volunteer who was living and working in Semporna, a large marine-biodiversity themed mural was painted onto the wall of the local primary school (see report in Annex 5 for further details). This celebration of the Park and its marine life provides a lasting message both for visitors and the local community.

Regular briefings were conducted for the Army and Police Units that are stationed in the Tun Sakaran Marine Park. The units are rotated, with a new team arriving every 3 months. Their role is State and National security rather than enforcement of Park regulations, and it was clear from our discussions with them that they did not know a great deal about the features and management of the Park. This meant that they did not know about fishing regulations, no-take zones, the fish bombing problem etc. The briefings were designed to inform them about conservation initiatives for the Park and to ask for their support where possible.

Output 2: Sabah Parks staff with increased capacity to run outreach programme.

One of the outputs from the project was a '*Public Awareness & Mutual Learning Strategy and Action Plan*'. This provides an analysis that will help guide Sabah Parks in their future development of an integrated outreach programme for their marine parks.

As mentioned above, Sabah Parks participated actively in the Roadshows, both in the preparatory stages and in the events themselves. After training and working alongside MCS and project staff they were confidently running the Roadshow on their own which is valuable experience for future outreach activities. Sabah Parks staff also participated in all of the other initiatives described under output 1. All these activities have provided Sabah Parks staff with hands-on experience and a store of knowledge for the future.

An 8-minute DVD produced by the project in collaboration with Sabah Parks provides a very useful tool for future outreach activities. It was shot on location and includes interviews with key stakeholders to highlight issues such as the 'no-take' zones and the need to work together to eliminate fish bombing. The DVD – entitled *Tun Sakaran Marine Park: Protecting reefs and supporting livelihoods* was produced in English, Bahasa Malaysia, Bajau, Suluk and Chinese, with all 5 languages versions on one CD, making it easy and convenient to pick the relevant version for the audience. Other materials that were produced for the outreach programme can also be used or further developed and adapted as appropriate.

Output 3: Sabah Parks staff trained and their capacity to carry out reef and MPA research, monitoring and management enhanced.

Two training courses were planned for the project, and these were successfully carried out. The aim of the Training Courses was to help those involved in the day-to-day running and monitoring of Marine Protected Areas in Sabah to understand biodiversity, improve their marine life identification skills and apply their new knowledge to research, monitoring and management. One of the main functions of Sabah's Marine Parks is to protect the rich biodiversity of habitats and species in the area, to monitor the state of the environment and take action to reduce adverse impacts such as fish blasting, over-exploitation, pollution, tourism development and global climate change.

Participants in the Training Courses came from each of the Marine Protected Areas in Sabah, i.e. Tun Sakaran Marine Park, Pulau Sipadan, Turtle Islands Park, Tunku Abdul Rahman Park and Pulau Tiga, thus enhancing knowledge throughout the Marine Unit. The first course was set at 'beginner to intermediary' level; suitable for staff with little experience of marine life as well as those who wished to widen their knowledge. It involved talks, field trips (snorkelling and shore surveys) and practical identification sessions as well as mini-projects undertaken by the

participants. The second course concentrated on reef corals, and greatly enhanced the ability of the participants to identify this difficult but critically important group of animals. A legacy of these two courses was a collection of up-to-date and practical field guides and identification books, Marine Life Notes and powerpoint presentations and a set of 'Coral Finders' for use underwater.

Joint research and training on coral diseases was carried out with Sabah parks by a Masters student from Newcastle University (Jennifer Miller) (as described in Section 4a) and the Project Manager (EW) led a 4-day study to assess the status of the coral reef at Pulau Sipadan – also covered in section 4a).

An underwater Giant Clam nature trail was established jointly by SIDP and Sabah Parks for educational and research purposes. This is located within the Bodgaya lagoon and features all 7 species of giant clam that occur in Sabah, including large numbers of juveniles. Specially designed all-weather signs have been placed along the trail to guide and inform people (for further details see report in Annex 5).

Output 4

Scope and effectiveness of alternative livelihoods programme enhanced.

The Alternative Livelihoods Workshop held on Pulau Selakan in August 2009 was a very useful exercise that confirmed the interest of the local community in taking up alternative or supplementary livelihoods. Tourism, crafts and aquaculture were all identified as possibilities and an important output of the workshop was the formation of an Action Committee that, with the help of Project staff, will take some of these ideas forward.

Following the workshop, the project facilitated the establishment of a 'Homestay Group' and arranged for a visit from Puan Ainah Sidek from the Ministry of Tourism, Culture and Environment (MTCE) to spend a day giving a briefing to the Selakan Community. During this meeting Puan Sidek acknowledged the potential for Homestay but raised concerns about the state of the environment (particularly rubbish), hygiene and safety. These are problems that currently hinder Selakan Island reaching the required standard. However, in order to maintain momentum, the project helped the group to register for one of the 3-day training courses run by MTCE in which the participants see Homestays in operation and learn what is involved in running them. The training is pending until a course is scheduled for the east coast.

Following successful spawning and rearing of one of the rarest species of giant clam (*Tridacna derasa*) at the Sabah Parks hatchery (Marine Invertebrate Conservation Centre) a plan was devised to re-stock the local reefs with juveniles and to provide livelihood opportunities for local communities through grow-out and sale of the other specimens for the ornamental trade. This programme is on-going and further details are included in a preliminary business plan (Annex 5) that sets out the steps for the development of this enterprise.

The two programmes above involve local communities with Malaysian citizenship who live in the Park. We were aware from early in the project that more needed to be done to engage the Bajau Laut in alternative livelihoods, especially as they are the group who rely most heavily on marine resources. However, for a number of reasons this proved to be a difficult challenge. Discussions and informal interviews with the Bajau Laut revealed that fishing was a way of life that provided food for their families and for sale. In general they were reluctant to consider other ways of making a living although some were keen to take up gardening/crop growing provided that land was made available. However, this in itself is a problem because of political sensitivities and lack of clarity regarding their status as 'Indeterminate Peoples'. These issues are being addressed at a higher level but the current situation is that they are not entitled to local customary rights and any business enterprise that they are engaged in has to be run through an intermediary or 'middle man' with Malaysian citizenship. Lack of schooling puts the Bajau Laut at an additional disadvantage.

An analysis of opportunities, progress and strategies for the alternative livelihood programme in Tun Sakaran Marine Park was produced after discussion and feedback with stakeholders and is intended to help stimulate and guide further development of a number of programmes (see Annex 5).

4.4. Project standard measures and publications

Project standard measures are in the table in Annex 4 and details of all publications and material that can be publicly accessed are in Annex 5.

4.5. Technical and Scientific achievements and co-operation

The Biodiversity Training Courses run for Sabah Parks were very important in contributing to the technical and scientific knowledge and expertise of Park staff. There were 2 courses – one covering basic biodiversity and identification of the main groups of marine plants and animals found in Tun Sakaran Marine Park, the second concentrating on identification of reef corals using a unique new underwater identification key. The first course was run by Dr Elizabeth Wood (EW) and Dr Frances Dipper (FD) from the Marine Conservation Society and the second (2 x one-week courses) was led by Russell Kelley from the Coral Identification Capacity Building Program (CICB) and Dr Rachel Pears from the Great Barrier Reef Marine Park Authority, with assistance from EW and FD. The reach of the Coral course was further extended by inviting participants from other organisations and government agencies (e.g. Fisheries Department, Universities in Sabah and West Malaysia).

Both the introductory and more advanced coral course included classroom and practical field sessions and they also included small projects that were carried out by the participants – for example a survey of fish and invertebrate species present in the local market and a coral inventory at genus level at both east and west coast sites.

The project also contributed to technical and scientific cooperation through the involvement of Jennifer Miller from the University of Newcastle who undertook a 3-week research and training programme with Sabah Parks Marine Unit on identification and monitoring of coral diseases. In addition, Dr Elizabeth Wood led a 4-day study with Sabah Parks to assess the status of the coral reef at Pulau Sipadan. This provided further capacity building within Sabah Parks, including an introduction to some of the methodologies for assessing reef resilience.

4.6. Capacity building

The aim of the project was to build capacity within Sabah Parks in a number of key areas identified as being of particular benefit in the programme to protect biodiversity and effectively manage the Tun Sakaran Marine Park and other marine parks.

The tools and hands-on experience gained by Sabah Parks staff during the Biodiversity Training Courses led to enhanced knowledge and an increased ability to carry out surveys and biodiversity work. This is covered in section 4.3 and in the Training Reports (Annex 5).

The project built capacity within Sabah Parks to plan and carry out public awareness programmes. This part of the project is also explained in Section 4.3.

4.7. Sustainability and Legacy

Project achievements fell into three broad categories, all of which incorporated capacity building, so we believe that they will endure and help to build a lasting legacy.

The biodiversity training for Sabah Parks developed individual knowledge and skills of nearly 40 staff and provided the tools for these people to use the skills learnt and apply them in the field. The training involved staff from all of the MPAs in Sabah in order to ensure as wide exposure to marine biodiversity issues within the organisation as possible. One of the outcomes of the coral identification workshop is that Sabah Parks are going to use those that were trained to train others, thus extending the reach and legacy of the initial workshops organised by the project.

Similarly, involvement of Sabah Parks in all aspects of the project outreach and awareness programme provided staff with new ideas and experiences that will help to take the programme forward as the Sabah Parks Community and Education Units expand their activities. The *Outreach Strategy and Action Plan* is part of the legacy of the awareness programme and will help in the development process.

The alternative livelihoods part of the programme built useful foundations and the formation of the Pulau Selakan Community Committee and contacts with the Ministry of Tourism will help to ensure that initiatives such as 'Homestay' are taken forward. The Marine Unit and staff at the Marine Invertebrate Conservation Centre (MICC) have incorporated the invertebrate culture and sea-ranching scheme into their work plan. This part of the alternative livelihoods programme should have advanced further but was prevented from doing so because of technical problems relating to spawning of abalone and/or survival of larvae. Production and grow-out of giant clams was more successful and this also is continuing as part of the MICC programme. The report analysing progress and opportunities in relation to alternative livelihoods provides a useful reference for further development.

One of the full time Darwin project officers (Elvin Michael Bavoh) applied for, and was offered, the post of marine research officer for Sabah Parks. This transfer happened immediately the project ended, thereby providing excellent continuity. The other full time member of staff (Jamie Valiant Ng) is also continuing to work with MCS / Semporna Islands Project and Sabah Parks on a new programme focussing on reef restoration.

Survey equipment, reference and identification books, signboards and interpretive material for the underwater trail, together with leaflets, posters, maps and hard and soft copies of all project reports and resources remain with Sabah Parks. Multiple copies of the DVD used for the outreach programme were produced in English, Malay, Bajau, Suluk and Chinese and are available for use by Sabah Parks and also by the private sector, NGOs and local communities.

5. Lessons learned, dissemination and communication

One of the key lessons learnt was the benefit of having regular formal meetings with senior staff from Sabah Parks. This not only helped us to monitor progress but also provided an opportunity for discussion about wider issues within Marine Park management in Sabah.

Another key lesson is that with regard to alternative livelihoods, there needs to be full commitment and a desire for change within the target community, driven by a vision of social and economic benefits. For example, fishing provides instant 'payback' and is deeply embedded within the Bajau Laut way of life. Some of this community would rather move to another area than try to engage in alternative livelihoods.

Project achievements were disseminated through reports, newsletters, local press and through the DVD: *Protecting reefs and supporting livelihoods*: This resource in particular will continue to be used after the project end and is available in English, Bahasa Malaysia, Bajau, Suluk and Chinese. The website is also a useful resource and will continue to help disseminate information about the project.

5.1. Darwin identity

The Project had its own identity and was known as the 'Semporna Islands Darwin Project' (SIDP) (Projek Darwin Pulau Pulau Semporna). We used the DI logo on the website (www.sempornaislandsproject.com) and on all publications, powerpoint presentations, posters, leaflets, displays, T-shirts, notebooks and other project materials.

The Darwin Initiative has a high profile within Sabah due to the number of Darwin projects that have (and continue to be) carried out within the State.

6. Monitoring and evaluation

The project logframe was modified and strengthened at the end of the first year, in response to the reviewer's comments - the final logframe is shown in Appendix 2. In general the logframe indicators were effective and helped us to focus on achieving the stated objectives.

The regular 3-4 monthly meetings with Sabah Parks were particularly useful in monitoring and evaluating progress and provided a good forum for discussing issues or problems. Project staff gave updates and presentations covering their area of work and these were followed by discussion, comment and questions from Sabah Parks research, management and administrative staff.

Baseline information on knowledge and understanding of biodiversity and resource management were assessed during the Biodiversity Training Courses. Through this we were able to show the effectiveness of the training. Evaluation of the impact of the public awareness part of the programme was not made in the same way which is an accepted omission (see below).

6.1. Actions taken in response to annual report reviews

Issues raised in the Year 1 Annual Report were discussed and appropriate action taken. Most of the suggested adjustments / modifications were incorporated but due to the short amount of time remaining and need to complete other priority tasks, we were unable to fully develop the suggestion to implement the 'Most Significant Change' technique for assessing the impact of the outreach programme. The concept has been covered in the 'Public Awareness and Mutual Learning Strategy and Action Plan' and will hopefully be adopted and taken forward by Sabah Parks.

7. Finance and administration

7.1. Project expenditure

Item	Budget	Expenditure	Variance
Rent, rates, heating, overheads etc			
Travel and subsistence			
Operating costs (Workshops, seminars, outreach events, postage, phone, seminars, etc)			
Capital items/equipment (display boards, LCD projector & sound system, underwater signage, underwater cameras, Coral Finder kits)			
Others (reference books, educational materials including DVD, Roadshow & workshop field costs incl T-shirts, printing, software)			
Salaries (E Wood 12,000; H Brunt 10,000; F Dipper 3,250; S Ranger 1,750; N. Salimeu 10,000; B Ahad 10,000; J. Valiant Ng 10,000, Elvin M Bavoh 10,000; J. Mapait 1,000; daily paid assistants 2,950)			
TOTAL			

7.2. Additional funds or in-kind contributions secured

Substantial in-kind contributions were made by Sabah Parks in the form of staff support and time, transport back and forth from Tawau airport to Semporna, provision of accommodation for project staff at the Sabah Parks complex in Semporna and on Pulau Boheydulang and boat travel out to and within the Park.

In-kind contributions included volunteer help on several aspects of the programme from WWF Malaysia, Reef Check Malaysia and KK Reef Watch. From the Marine Conservation Society, Andy Starbuck volunteered his time to run the Roadshows and provided props free of charge. Jennifer Miller funded her trip to Sabah to carry out research into coral diseases and train Sabah Parks staff in the study of coral diseases. In all these case the project covered expenses such as travel and subsistence.

The Ministry of Tourism, Culture and Environment provided RM40,000 (approximately £8,000) towards a new 8-minute DVD called 'Tun Sakaran Marine Park and the CIMB Foundation contributed about £10,000 for hatchery and other equipment.

7.3. Value of DI funding

If the DI funding had not been available then the programmes outlined in this report could not have been carried out. Opportunities would have been missed and the efforts to protect biodiversity and promote sustainable use of resources at the project site would have proceeded more slowly.

Annex 1 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2011	Actions required/planned for next period
<p>Goal: 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"> • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 		<p>Through the project, support was strengthened for the Biodiversity Conservation Zones (No-take zones) in the Park. In addition, steps were taken to encourage and enable local communities to move away from direct use of natural resources and to explore possibilities being opened up in tourism-related livelihoods.</p>	<p>(do not fill not applicable)</p>
<p>Purpose The project purpose is to ensure that biodiversity conservation and sustainable use goals for the Tun Sakaran Marine Park are met.</p>	<ol style="list-style-type: none"> 1. Increased public understanding and support for management strategies within the Park. 2. Sabah Parks staff with greater knowledge of biodiversity and its relevance to Park management, and with tools to research into and disseminate this information. 3. Local community with increased opportunities to engage in alternative livelihoods and so help to take pressure off reef resources. 	<p>The outreach programme reached all of the stakeholders who live in or use the Park and feedback suggested a wide understanding of the need for and benefits of management together with a willingness to support conservation initiatives.</p> <p>The Biodiversity Training Courses and joint research with Sabah Parks led to a measurable improvement in knowledge and provision of field guides for the Marine Unit will help to ensure long-term benefits.</p> <p>Local communities are aware of new livelihood opportunities and progress is being made towards implementation and uptake.</p>	<p>N/A</p>
<p>Output 1.</p>	<p>1.1. Awareness programme carried out and reaching all stakeholders.</p>	<p>The awareness programme reached a wide audience through a variety</p>	

Public and other stakeholders with enhanced understanding of biodiversity and sustainable use	1.2. Combination of before and after surveys & 'most significant change' show change in public understanding of biodiversity and sustainable use strategies.	of methods appropriate to the target audiences. Audiences were engaged and feedback showed that they gained a good understanding of biodiversity and sustainable use issues and were supportive of conservation measures. However, there are some on-going issues with the Bajau Laut fishing community and no-take zones. Indicator 1.2 was added after the yr 1 Annual Review and we were unfortunately unable to implement the 'most significant change' part of this due to lack of lead-in time.
Activity 1.1. Meetings and focus groups to discuss scope and content of information programme and decide on strategies.		Completed. Discussions within Sabah Parks and project team and with a range of stakeholders including local communities, schools and NGOs.
Activity 1.2. Awareness materials designed and produced.		Completed. A wide range of interpretation and awareness materials were produced, including leaflets, posters, signs and an 8-minute DVD. DVD submitted as supplementary material.
Activity 1.3. Dissemination of information and establishment of TSMP 'Supporters Group'		Completed. Information disseminated through Roadshow that was presented to 800 adults and 8,000 children in two phases each of 3 weeks. This covered key topics relating to biodiversity and sustainable. Also activities such as Community Art event, and briefings / presentations / discussions with other target audiences. Pulau Selakan Community Committee established. Reports of these activities are in Annex 5.
Output 2. Sabah Parks staff with increased capacity to run outreach programme.	2.1 Public awareness & mutual learning strategy and action plan produced, providing analysis of methods and best practice for outreach programme. 2.2 Sabah Parks staff actively participate and engage in outreach programme.	Sabah Parks staff were actively engaged in all of the activities associated with the outreach programme and this has undoubtedly increased their capacity to continue and expand their engagement with the public. This applies not only to Tun Sakaran Marine Park but to other MPAs in Sabah because staff from throughout the organisation participated in the project outreach activities.
Activity 2.1. Results of meetings, focus groups and experiences on the ground incorporated into a ' <i>Public Awareness and Mutual Learning Strategy and Action Plan</i> ' to provide reference points for Sabah Parks.		Completed (see Annex 5)

<p>Activity 2.2.</p> <p>Outreach programme, targeting local communities and other stakeholders and involving Sabah Parks staff.</p>	<p>Completed (see Roadshow and miscellaneous activity reports – Annex 5)</p>
<p>Output 3. (insert original output)</p> <p>Sabah Parks staff trained and their capacity to carry out reef and MPA research, monitoring and management enhanced.</p>	<p>3.1. Training courses on marine biodiversity carried out for Sabah Parks staff (approx 20 participants each time).</p> <p>3.2. Training Course assessment forms and tests show knowledge of participants is enhanced.</p> <p>3.3. Fieldwork and research programmes carried out jointly with SIDP and Sabah Parks staff.</p> <p>3.4. Underwater nature trail established jointly by SIDP and Sabah Parks for educational and research purposes.</p> <p>The training courses were carried out as planned and assessments and tests showed that the knowledge of the participants was enhanced and that they were able to apply their new skills to identify marine life in the field.</p> <p>Joint research and training was undertaken with the focus on reef monitoring (coral diseases and assessment of reef health / resilience).</p> <p>The underwater nature trail was established as a joint effort and will be maintained and enhanced by Sabah Parks staff based at the Marine Invertebrate Conservation Centre on Pulau Boheydulang.</p>
<p>Activity 3.1.</p> <p>Training and information needs identified through discussions with Sabah Parks staff</p>	<p>Completed, and training organised in response to needs that were identified</p>
<p>Activity 3.2.</p> <p>Teaching and reference materials developed / acquired to use for training courses</p>	<p>Completed (powerpoints and Marine Life Notes submitted as supplementary material)</p>
<p>Activity 3.3.</p> <p>One-week training field course on marine biodiversity carried out for Sabah Parks staff (approx 20 participants each time)</p>	<p>Completed (reports and assessments submitted as supplementary material)</p> <p>1-week <i>Introduction to Marine Life</i> course 20 participants</p> <p>2 x 1-week 'Coral Finder' courses for 20 Sabah Parks staff and 10 participants from other government departments/local Universities.</p>
<p>Activity 3.4.</p> <p>Information on marine biodiversity and ecology of the Park incorporated into a display for use by staff and visitors</p>	<p>Completed</p> <p>Marine Biodiversity posters</p>

<p>Activity 3.5. Underwater nature trail established for educational and research purposes</p>	<p>Completed Giant clam nature trail established on Ribbon Reef, Bodgaya lagoon. (Report submitted as supplementary material)</p>
<p>Output 4. (insert original output) Scope and effectiveness of alternative livelihoods programme enhanced.</p>	<p>4.1 Training course in abalone culture completed by Sabah Parks staff and trained technician training others. 4.2. Culture and sea-ranching of marine invertebrates established and operational with at least 3 communities gaining benefit. 4.3. At least one tourism-related alternative livelihood activity tested through pilot scheme with local communities. 4.4. Action plan and strategy for alternative livelihoods in Tun Sakaran Marine Park.</p> <p>The training in abalone culture was completed by Abdul Jalil Mapait (a permanent employee of SP, based at the Sabah Parks Marine Invertebrate Conservation Centre(MICC) and he went on to train other staff at MICC.</p> <p>Despite a number of attempts, and the training mentioned above, production of abalone has so far not been achieved (there was one successful spawning but the larvae did not survive). The local community cannot be fully involved until the ‘seeds’ are produced at the MICC. Sabah Parks are committed to this initiative so this part of the programme is continuing post-project and we hope for success in the longer term.</p> <p>Culture of giant clams was successful, leading to production of thousands of juveniles, some of which have been grown-out in preparation for sale as live specimens for the aquarium trade.</p> <p>Progress has been made in developing ‘Homestay’ as an alternative livelihood but it proved impossible to move to the pilot scheme stage due to issues relating to litter, hygiene and safety and the need to attend a government training course. Other tourism-related livelihood options were explored and strategies are included in the report ‘Progress towards development of alternative livelihoods in the Tun Sakaran Marine Park’.</p>
<p>Activity 4.1. Programme launched to culture marine invertebrates</p>	<p>Programme launched and spawning trials carried out with abalone and giant clams (Report submitted as supplementary material)</p>
<p>Activity 4.2. etc Sea-ranching programme expanded to include these other invertebrates</p>	<p>The sea-ranching programme could only include giant clams because of technical problems in culture of abalone (see report above)</p>
<p>Activity 4.3. Stakeholder meetings to discuss alternative livelihood opportunities in reef/marine orientated tourism in the Park and</p>	<p>Completed. Details are included in the Alternative Livelihoods report.</p>

<p>Activity 4.4.</p> <p>Pilot project related to tourism as an alternative livelihood identified and planned by end of Yr 1 and launched early in Yr 2.</p>	<p>Progress was made towards development of 'Homestay' within the Park and other options also explored. The way forward is discussed in 'Progress towards development of alternative livelihoods in the Tun Sakaran Marine Park' – see Annex 5.</p>
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Annex 2 Project's final logframe, including criteria and indicators

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>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>Sub-Goal:</p> <p>To strengthen and enhance measures being taken to promote biodiversity conservation and sustainable use of resources within the Tun Sakaran Marine Park.</p>	<p>Successful completion of the three selected programmes (see outputs).</p>	<p>Independent assessments by Sabah Parks and through the DI project evaluation.</p>	
<p>Purpose</p> <p>The project purpose is to ensure that biodiversity conservation and sustainable use goals for the Tun Sakaran Marine Park are met.</p>	<ol style="list-style-type: none"> 1. Increased public understanding and support for management strategies within the Park. 2. Sabah Parks staff with greater knowledge of biodiversity and its relevance to Park management, and with tools to research into and disseminate this information. 3. Local community with increased opportunities to engage in alternative livelihoods and so help to take pressure off reef resources. 	<ul style="list-style-type: none"> o Feedback following awareness campaign shows high level of understanding and support for conservation measures. o Surveillance shows low or no incursion into Biodiversity Conservation (no-take) zones due to community awareness and support. o Reduced threats to biodiversity from activities such as fish blasting due to greater public vigilance. o Improved economic situation for local 	<p>Increased public understanding of the benefits of biodiversity conservation will lead to more proactive support for the Park.</p>

		fishing families.	
Output 1 Public and other stakeholders with enhanced understanding of biodiversity and sustainable use.	1.1 Awareness programme carried out and reaching all stakeholders. 1.2 Combination of before and after surveys & 'most significant change' show change in public understanding of biodiversity and sustainable use strategies.	<ul style="list-style-type: none"> ○ Report of conclusions and recommendations from planning and focus group meetings. ○ Materials produced and disseminated. ○ Report of public awareness and education programme. ○ 'Supporters Group' established and helping to promote conservation initiatives in the Park. 	The materials produced are relevant and inspiring enough to stimulate positive reactions from the public and a wish to actively support the Park.
Output 2 Sabah Parks staff with increased capacity to run outreach programme.	2.1 Public awareness & mutual learning strategy and action plan produced, providing analysis of methods and best practice for outreach programme. 2.2 Sabah Parks staff actively participate and engage in outreach programme.	<ul style="list-style-type: none"> ○ Strategy document available as printed version or on-line. ○ Report of outreach programme and Sabah Parks staff involvement. 	
Output 3 Sabah Parks staff trained and their capacity to carry out reef and MPA research, monitoring and management enhanced.	3.1. Training courses on marine biodiversity carried out for Sabah Parks staff (approx 20 participants each time). 3.2. Training Course assessment forms and tests show knowledge of participants is enhanced. 3.3. Fieldwork and research programmes carried out jointly with SIDP and Sabah Parks staff. 3.4. Underwater nature trail established jointly by SIDP and Sabah Parks for educational and research purposes.	<ul style="list-style-type: none"> ○ Bilingual (English and Bahasa Malaysia) teaching materials including powerpoint presentations and illustrated identification guides. ○ Training Course assessment forms. ○ Reference material including identification books to form permanent source of information for future research. ○ Display incorporating photographs and key information on coral reef biodiversity within the Park. ○ Underwater nature trail with interpretive material. 	Sabah Parks staff will engage with the training and will remain in the organisation for long enough to train others and put their knowledge to good use. Sabah Parks staff maintain and further develop the interpretive displays.
Output 4 Scope and effectiveness of	4.1. Training course in abalone culture completed by Sabah Parks staff and trained technician training others.	<ul style="list-style-type: none"> ○ Hatchery progress reports. ○ Report on options for alternative 	Alternative livelihoods will be financially viable.

<p>alternative livelihoods programme enhanced.</p>	<p>4.2. Culture and sea-ranching of marine invertebrates established and operational with at least 3 communities gaining benefit.</p> <p>4.3. At least one tourism-related alternative livelihood activity tested through pilot scheme with local communities.</p> <p>4.4. Action plan and strategy for alternative livelihoods in Tun Sakaran Marine Park.</p>	<p>livelihoods.</p> <ul style="list-style-type: none"> ○ Discussion document on opportunities and challenges for local community involvement in tourism activities in the Park. ○ Juveniles of other species of invertebrates produced at the hatchery. ○ Ranching of these juveniles in operation. ○ Alternative livelihoods tourism-related pilot project in operation and report produced. ○ Action plan published. 	<p>Alternative livelihoods will be technically feasible and sustainable.</p> <p>Local communities remain committed to engaging with the alternative livelihoods programme.</p> <p>Sabah Parks continue to provide support – particularly supply of abalone seed.</p>
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Annex 3 Project contribution to Articles under the CBD

Article No./Title	Project %	Article Description
8. In-situ Conservation	10	Establish systems of protected areas with guidelines for selection and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems and recovery of threatened species; control risks associated with organisms modified by biotechnology; control spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.
10. Sustainable Use of Components of Biological Diversity	10	Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.
11. Incentive Measures	10	Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.
12. Research and Training	30	Establish programmes for scientific and technical education in identification, conservation and sustainable use of biodiversity components; promote research contributing to the conservation and sustainable use of biological diversity, particularly in developing countries (in accordance with SBSTTA recommendations).
13. Public Education and Awareness	30	Promote understanding of the importance of measures to conserve biological diversity and propagate these measures through the media; cooperate with other states and organisations in developing awareness programmes.
Other Contribution	10	Smaller contributions (eg of 5%) or less should be summed and included here.
Total %	100%	

Annex 4 Standard Measures

Code	Description	Additional details	Total
Training Measures			
4c	Number of postgraduate students receiving training (not 1-3 above)	Postgraduate students receiving training: project staff joined biodiversity training courses	4
4d	Number of training weeks for postgraduate students	4 people x 1 week	4
6a	Number of people receiving other forms of short-term education/training (ie not categories 1-5 above)	i) Sabah Parks & other participants on Biodiversity Course: 50 people ii) Project & SP staff trained in outreach techniques (Roadshow): 15	65
6b	Number of training weeks not leading to formal qualification	i) 50 x 1 week ii) 15 x 6 weeks	140
7	Number of types of training materials produced for use by host country(s)	1 (powerpoint presentations)	2
Research Measures			
8	Number of weeks spent by UK project staff on project work in host country(s)	16	16
10	Number of formal documents produced to assist work related to species identification, classification and recording.	1 Marine life notes	1
Dissemination Measures			
14b	Number of conferences/seminars/workshops attended at which findings from Darwin project work presented/disseminated.	3-day workshop in Penampang on <i>'Indigenous and Community Conserved Areas'</i> 1-week workshop on <i>Environmental Leadership and Stewardship</i> held in Kudat –organised by WWF. 1day WWF workshop on: <i>'Access and Use of Natural Resources by Indeterminate Peoples in Semporna'</i> 1 day workshop on <i>'Training the Trainers in Marine Environmental Education'</i> organised by WWF in Semporna. 3-day Community Engagement and Education Workshop in Semporna, organised by WWF-Malaysia. 2-day workshop in Kuala Lumpur on Dive Tourism and its impacts on local communities in Malaysia,	8

Code	Description	Additional details	Total
		organised by University of Kent, University of Malaya, Universiti Trengannu. 1 day workshop with GDF and Sabah Women's Action Resource Group on planning and running interactive Community outreach programmes. Keynote talk at one day workshop on Marine Tourism in the Less Developed World' at University of Kent, Canterbury.	
15a	Number of national press releases or publicity articles in host country(s)	2	2
16a	Number of issues of newsletters produced in the host country(s)	1	1
16b	Estimated circulation of each newsletter in the host country(s)	500 +e-version	500
17b	Number of dissemination networks enhanced or extended	1 (website)	1
Physical Measures			
20	Estimated value (£s) of physical assets handed over to host country(s)	Underwater signs, display boards, LCD projector & sound system, underwater cameras (basic), Coral Finder kits, reference books, survey equipment, magnifying glasses.	£6k
22	Number of permanent field plots established	Underwater giant clam trail	1
23	Value of additional resources raised for project	a) In kind Sabah Parks field costs (staff, boat etc) £16,000 b) CIMB Bank Malaysia £10,000 c) Scubazoo in kind: office space £3,000. d) Ministry of Tourism, Culture & Environment c. £8,000 input to cost of DVD	£37k
Other Measures used by the project and not currently including in DI standard measures			
	Types of environmental education and awareness materials / activities developed and introduced.	Outreach Strategy document; Participatory activities (e.g. Build your own Reef), leaflets, posters, DVD, underwater trail, postcards	7

Annex 5 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Information leaflet (pdf)	Tun Sakaran Marine Park, 2009	SIDP	info@sempornaislands project.com	0
Newsletter	SIDP News 2010 (compiled by E Wood)	SIDP	info@sempornaislands project.com	0
Report	Tun Sakaran Marine Park 3D model competition 2009	SIDP	info@sempornaislands project.com	0
Report	Coral Seas Roadshow Reports 2010 & 2011	SIDP	info@sempornaislands project.com	0
Report	Pulau Selakan Alternative Livelihoods Workshop 2010	SIDP	info@sempornaislands project.com	0
Report	Community Marine Life Appreciation Art Workshop Pulau Sibuan, Tun Sakaran Marine Park, Semporna 2010	SIDP	info@sempornaislands project.com	0
Postcards	Marine Life art postcards	SIDP	Available for purchase at local outlets	c. RM 10/pack of 9 cards
Report	Progress towards development of alternative livelihoods in the Tun Sakaran Marine Park	SIDP	info@sempornaislands project.com	
DVD	Protecting reefs and supporting livelihoods	SIDP/Sabah Parks / Scubazoo	info@sempornaislands project.com	£5 + postage
Report (pdf)	Public awareness & mutual learning strategy and action plan 2011	SIDP	info@sempornaislands project.com	0

Annex 6 Darwin Contacts

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