



Submit by 5 January 2007

## DARWIN INITIATIVE APPLICATION FOR GRANT ROUND 15 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Applications will be considered on the basis of information submitted on this form and you should give a full answer to **each** question. Please do not cross-refer to information in separate documents except where invited on this form. The space provided indicates the level of detail required. Please do not reduce the font size below 11pt or alter the paragraph spacing. Keep within word limits.

### 1. Name and address of organisation (NB: Notification of results will be by post)

<b>Name:</b> Dr Tim Coles	<b>Address:</b> Operation Wallacea Trust, Hope House, Old Bolingbroke, Spilsby, Lincolnshire PE23 4EX
---------------------------	---

### 2. Project title (not exceeding 10 words)

Building capacity for sustainable fisheries management in the Wallacea region

### 3. Project dates, duration and total Darwin Initiative Grant requested

Proposed start date:	Duration of project:			End date:	
	2007/08	2008/09	2009/10	2010/11	Total
Darwin funding requested	£45,000	£50,000	£35,000	£20,000	£150,000

### 4. Define the purpose of the project (extracted from logframe)

Eastern Indonesia has the most biologically diverse reefs on the planet yet throughout most of this area unsustainable artisanal fisheries are severely damaging the reefs. Indonesia needs to find a way to sustainably manage these reef fisheries both to protect the biodiversity value but also to provide income to local communities. This project demonstrates a model for how reef fisheries in the vast majority of areas where there is no agreed ownership of reef sections by individuals, families or villages (ownership would always be a preferred option but is not practicable unfortunately in large parts of Indonesia)) could be managed sustainably by restricting access to the fishery via a registration scheme, empowering local communities to manage their own fisheries via fishery performance data and using business income to reduce overall fishing effort by operating a 'buy out' scheme.

### 5. Principals in project. Please provide a one page CV for each of these named individuals

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner and co-ordinator in host country/ies
<b>Surname</b>	Coles	Bunting	Beloro
<b>Forename (s)</b>	Timothy Frederick	Stuart	
<b>Post held</b>	Project Director	Research Fellow	Director
<b>Institution</b>	Operation Wallacea	Essex University	Forkani
<b>Department</b>		Coral Reef Research Unit	n/a

**6. Has your organisation received funding under the Darwin Initiative before? If so, give details**

Reference No	Project Leader	Title

**7. IF YOU ANSWERED NO TO QUESTION 6 describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)**

<p><b>Aims (50 words)</b></p> <p>To provide best practice examples of forest and reef management in developing countries that can be replicated elsewhere without large-scale initial investment. The Trust concentrates on developing projects where there is a direct link between development and biodiversity conservation.</p>
<p><b>Activities (50 words)</b></p> <p>The Trust is managing a \$1 million lowland forest management project in Sulawesi for the World Bank/GEF. It has raised the funds and completed all the initial consultation and trial implementation work for the Kaledupa fisheries management project and is working with UNDP on \$1 million cloud forest management application.</p>
<p><b>Achievements (50 words)</b></p> <p>The Trust Sulawesi forest project has established an organisation, (aka proposed Kaledupa Fisheries Forum), comprising all stakeholders to manage the forests. Buffer zone village contracts have been agreed with alternative income sources in exchange for ensuring no illegal activities emanate from contracted villages in the biodiversity rich core zone forests.</p>

**8. Please list the UK/collaborative (where there are partners in addition to the applicant organisation) and host country partners that will be involved, and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships.**

Partner	Details (including roles and responsibilities and capacity to engage with the project):
Wakatobi Government	The Wakatobi Government via funding from COREMAP a World Bank/GEF project to establish sustainable fisheries in eastern Indonesia has appointed Facilitators in each of the Kaledupan communities to communicate the need for fishery management changes. Proposed fishery regulations are being drafted to include devolving fishery management to island level and full time fishery scientists for each island are due to be appointed. Kaledupa has been identified by COREMAP as being the best location for the establishment of a best practice management scheme as described above and \$500,000 counterpart funding ring fenced for funding a Kaledupa reef management scheme with emphasis on capacity training for local communities in fisheries management and enforcement activities.

<b>Partner</b>  Coral Reef Research Unit	<b>Details (including roles and responsibilities and capacity to engage with the project):</b>  CRRU is an organisation based in the University of Essex that has affiliated academics from a range of universities (eg Cambridge, Oxford, Aberystwyth, Reading, Portsmouth, Wellington, West Florida, Rutgers etc) and is a Board member of the Wallacea Institute (the Wallacea Institute for the study of biodiversity in the Wallacea region is based at the University of Makassar and is chaired by the Deputy President of Indonesia). The CRRU organises the scientists to complete the annual marine biodiversity, fisheries and socio-economic surveys for Kaledupa Island that are funded by Operation Wallacea and is responsible for ensuring this research is published in peer reviewed journals. CRRU has established monitoring systems for tracking biodiversity changes on the Kaledupa reefs and for monitoring village income levels.
--	--

<b>Partner</b>  Forkani and Yayasan Bajo Mattila (YBM)	<b>Details (including roles and responsibilities and capacity to engage with the project):</b>  These NGO's have provided the local implementation for most of the Operation Wallacea Trust initiatives in Kaledupa and provide an excellent network for working both in the Kaledupan mainland and the offshore Bajo communities respectively.
--	---

**9a. Have you consulted stakeholders not already mentioned above?**  **Yes**  **No**

**If yes, please give details:**

One of the main strengths of this project is the huge amount of background work that has been completed by all the parties to ensure it can be implemented successfully. The proposed project brings together the work of Operation Wallacea, COREMAP (the World Bank funding programme for the fisheries of eastern Indonesia targeted through the Wakatobi government) and the Operation Wallacea Trust into a single programme that would not be achievable without the participation of all parties.

Between 2002 and 2004, Operation Wallacea funded a fisheries research programme to assess the status of the Kaledupan fisheries. This study clearly demonstrated the declining status of the reef fisheries around Kaledupa from evidence such as: the collapse of certain commercial fisheries (eg lobster, sea cucumber, shark fin etc); the low catch rate per hour fishing in comparison with other reefs in Indonesia; the high percentage of immature fish and invertebrates landed and interview data from local fishers pointing to a major decline in the fishery in recent years all indicate the poor condition of the reef fishery around Kaledupa. Around 1000 fishers on Kaledupa rely on fishing for subsistence or sole income source whilst an additional 3000+ of the population rely at least partially on fishing as an additional income or food source. Throughout Kaledupa there are at least 30 dealers selling fish and invertebrates to visiting boats from Wanci (the next major island) that export the catch outside the National Park. There is little doubt from this initial research that without management intervention, the reef fisheries around Kaledupa will continue to decline, with significant impacts on the local economy and the biodiversity value of the reefs. In addition to this fisheries survey work, Operation Wallacea completed initial research on the biodiversity of the reefs around Kaledupa.

In addition, the two NGOs, Forkani and YBM, form a critical part of this proposal and will be the primary implementing agencies within each of the fishing communities with which this proposal seeks to work. Both organisations have already carried out an extensive community consultation process relevant to this proposal undertaken over several months. This work culminated in the establishment of the Kaledupa Fisheries Forum (proposed as a key part of this project), which comprises members from each of the villages with which this project will work. Empowering of local communities through improved awareness and understanding of declining fish resources will be the primary responsibility of the local partner organisations Forkani and

YBM who have long standing and well established relations with each of the communities this proposal seeks to work.

COREMAP Phase 2 completed extensive national, regional and local level consultation about the concept of developing sustainable fisheries projects throughout eastern Indonesia and the concept of using Kaledupa as the site for a best practice reef management project. Kaledupa was chosen as a best practice site for the following reasons:

- Kaledupa Island lies in the triangle of reefs in eastern Indonesia that have been identified as having the highest number of coral genera. Scientists working on the Operation Wallacea research programme (Bell & Smith, 2004) have shown there are more sponge species on the Kaledupa reefs than any other site previously investigated. These lines of evidence plus the published data on coral and reef fish diversity from the transect monitoring programme demonstrate the importance of the Kaledupa reefs as a centre of marine biodiversity.
- There are extensive marine and fisheries research facilities on site developed by Operation Wallacea and a funded programme each year bringing in international expertise in fisheries, social science and marine biology co-ordinated by the Coral Reef Research Unit, which can provide the expertise needed to publish the results of the proposed management programme on biodiversity, fisheries and the socio-economic aspects.
- There are extensive data sets in existence already for Kaledupa so that the extent of the problem is well understood and there is a good working relationship with all the stakeholders who are keen to see Kaledupa established as a best practice example of reef management.
- The scale of the problems facing the Kaledupan reefs are manageable. Kaledupa lies within the Wakatobi Marine National Park and is, therefore, protected from large-scale commercial fisheries. There is also an existing ranger force and TNC/WWF have formed a partnership with the Wakatobi National Park management to help build their capacity. As a result the Wakatobi has one of the best records of policing against illegal activities such as bomb and cyanide fishing, in Indonesia.

Given the apparent level of support for the concept of the Kaledupa project, the Operation Wallacea Trust funded a six-month pilot project (June to November 2005). During this time the following was achieved:

- **Implementing registration:** 4 of the major fishing villages were targeted to trial the concept of registration. Registration of all boats in these villages was completed and there has been almost unanimous support from the communities themselves to implement this system.
- **Formation of Kaledupa level fishery management institutions:** The Wakatobi-district Government, the Wakatobi National Park Authority and the Kaledupan local government have all voiced their support for the concept of Kaledupa having responsibility for their own fishery and local laws are currently being considered to enable this to happen.
- **Identification of key community level leaders to implement the fishery changes necessary:** The Trust team has been working alongside locally based NGOs FORKANI and YBM. These organisations have representatives in each of the villages around Kaledupa, as such facilitating the establishment of the proposed Kaledupa Fisheries Forum. As the Trust pilot project has increasingly sought to integrate itself into Kaledupan communities it has managed to achieve widespread support for many of the proposed fishery management actions outlined by this proposal.
- **Tested the willingness of fishers to take the necessary management decisions to allow the fishery to recover:** The establishment of a Kaledupa Fisheries Committee, the registration and all the other achievements will be pointless, though, if the fishing communities are not capable of taking the necessary management decisions to allow the fishery to recover. Focus groups of fishers in the four study villages were, therefore, created to test how, when fisheries data and problems were presented to them, they would respond. The fisheries data from the previous Kaledupa surveys and the recent village based surveys (see below) were presented with a series of management actions that could be taken in response to the apparent decline in fish stocks these data suggest (eg do nothing, register the fishers and the gear and then gradually reduce fishing effort from buy outs, establishing and policing No Take Areas, banning commercial fisheries etc). There was universal rejection of the

Do Nothing option from these consultations and an agreement that management action was needed. Banning commercial fisheries was seen as unacceptable and although there was support for setting aside No Take Areas the concept that 30% of the whole area could be protected was seen as politically unacceptable. Registration and buy out of licences was seen as the best of the available options.

- **Established and tested the village based fishery monitoring programme:** If the Kaledupa Committee is going to manage the fishery they will need data on the fishery performance from the various villages. The weekly monitoring programme (based on monitoring all landings over a 24 hour period each week) was set up and tested in the four study villages. This involved designing the methodology and training local fishers to perform all surveys. The monitoring programme had 3 integrated components, which were fed into a database for analysis: Fishers Catch surveys, Village Census and Socio-economic surveys of fisher households.

**9b. Do you intend to consult other stakeholders?**

Yes  No

**If yes, please give details:**

The Kaledupa Fisheries Forum provides continual consultation throughout the project.

**9c. Have you had any (other) contact with the government not already stated?**

Yes  No

**If yes, please give details:**

Consultations have included many government departments including the National Park authorities, Fisheries department, regional Government in Kendari, Tourism department in Kendari and at national level with Fisheries and Forestry departments.

## PROJECT DETAILS

### 10. Please provide a Concept note (Max 800 words) (repeat from Stage 1, with changes highlighted)

Research on Kaledupa since 2002 has highlighted the severely overfished and unsustainable nature of traditional fisheries. Evidence from biological and social research includes: low CPUE values, high percentage of immature individuals in catches; an increase in fishing effort and power since 1970's; a decline in fish diversity and abundance; local extinction of species; and boom and bust commercial fisheries since 1990's. The present open access unregulated fisheries are threatening biodiversity and coastal livelihoods on Kaledupa. Lack of alternative sources of incomes coupled with a heavily reliance on fisheries for food and income, means over fishing will result in ecosystem shifts and a loss of biodiversity components for future generations, causing migration of indigenous communities and loss of unique cultures.

Despite the negative impact that unsustainable fishing practices are having on marine ecosystems, traditional fisheries have been exempt from regulation under national legislation. However, decentralisation policies, which actively encourage the creation of local institutions for fisheries management, have established laws empowering district government to restrict traditional fisheries if they threaten fisheries resources and biodiversity. The new Wakatobi government is currently completing consultation over possible fishery regulations for the Park including the concept of devolving fishery management down to island level committees. On Kaledupa, the Kaledupa Fisheries Forum (KFF), has already been formed and is a collaborative partnership between communities, NGOs, Wakatobi government, Fisheries Department (DKP) and the Wakatobi Marine National Park.

This project will train local staff to perform fisheries monitoring and data analysis to provide the KFF with data that can be used by them to assess the effectiveness of various management strategies. Training and capacity building is targeted at creating a self-sufficient assessment and management system, operating independently of UK-based expertise after funding ceases.

The project will also complete registration of the fishers, boats and main types of fishing gear. The main focus of the project will be to develop sustainable businesses that can be offered in exchange for the fishing licences. Possibilities that have been researched include ecotourism, aquaculture for marine aquarium trade and enhanced prices for existing products

Developing tourism in the Wakatobi Park because of the remoteness of the site is very difficult. Operation Wallacea has succeeded because it targets research tourists who want to work at the only active research centre in the triangle of reefs in eastern Indonesia that have the highest diversity of coral genera. The Hoga research centre has a high publication output and is becoming increasingly attractive as a research venue (aka Heron Island). Visitors stay in locally provided accommodation so a large percentage of the income received makes its way to the local communities. Op Wall is currently extending the season on Hoga by recruiting university training course groups and Gap Year, which will enable additional fishers to gain substantial income from home-stays in exchange for surrendering their licences.

Aquaculture for food species is unlikely to work in the Wakatobi because of the distance to main markets, the problems with sourcing fish food without resorting to increased fishing effort for trash fish and the pollution impacts of holding the necessary weights of fish in cages to make the project financially viable. However, this changes if high value aquarium species are targeted, particularly since the products of such aquaculture can be produced in weights of a few, and ranching employed such that individual fishers can be responsible for a number of fish or corals. The Marine Aquarium Council are supportive of a scheme where the fish or corals could be marketed in Europe as benefiting the reef, in that those purchasing the fish or corals would have the satisfaction of knowing that their purchase was directly helping to reduce fishing on the reef. Moreover the main importer of aquarium fish in the UK has been approached and would be happy to distribute to aquarists throughout the UK fish or corals produced under this system since they are likely to attract premium pricing.

The Operation Wallacea Trust has experience of dealing with a similar problem of linking conservation performance to higher prices for products from the \$1 million GEF scheme it is managing in the nearby forests. The Trust is currently Trade Marking the name Wildlife Conservation Products to provide a system for selling products from villages that have agreed conservation contracts. The products (coffee, cashews, fruit concentrate etc) are being bought at Fair Trade equivalent prices and marketed in the UK through the 250 outlets operated by the National Union of Students. Other companies such as the Co-op, Innocent Smoothies and Wicked Coffee are also interested in developing this concept and extending the scheme to agricultural products produced by fishers surrendering their licences would be feasible since there would be a direct connection between purchase of the product and reduction of reef fishing effort.

**11a. Is this a new initiative or a development of existing work (funded through any source)?**

**Please give details:**

This is a joint initiative between the Operation Wallacea Trust, Wakatobi Government, COREMAP (World Bank funding project for sustainable fisheries in eastern Indonesia), Operation Wallacea and local NGO's

**11b. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work?**

Yes  No

**If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits:**

There are many elements of the proposals that are being tested in other conservation projects in Indonesia and elsewhere. Extensive consultation and research has been used to identify the elements that are most likely to be effective.

**12. How does this project meet a clearly identifiable biodiversity need or priority defined by the host country? Please indicate how this work will fit in with National Biodiversity Strategies or Environmental Action Plans, if applicable.**

**Means of delivering sustainable use including economic incentives:** Developing sustainable usage of reef fisheries is a key priority in eastern Indonesia especially since it has the most biologically diverse reefs in the World. This project provides an example of how a commonly owned resource could be managed sustainably by providing economic alternatives directly linked to reduction of fishing effort.

**Capacity Building:** The objective of the project is to train local staff to carry out the fishery monitoring and management of their fishery. The UK input is designed to provide training and mentoring of these staff.

**13a. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please rank the relevance of the project to the relevant article(s) of the CBD thematic programmes and/or cross-cutting themes by indicating percentages.**

Articles	% Relevance	Themes	% Relevance
5. Co-operation		Access and Benefit Sharing	
6. General measures for Conservation and Sustainable Use	10	Agricultural Biodiversity	
7. Identification and Monitoring		Alien Species	
8. <i>In-situ</i> Conservation		Biodiversity and Tourism	
8h. Alien Species		Biosafety	
8j. Traditional Knowledge		Climate Change and Biodiversity	
9. <i>Ex-situ</i> Conservation		Economics, Trade and Incentives	
10. Sustainable use of components of Biological Diversity	50	Ecosystems approach	
11. Incentive measures		Forest Biodiversity	
12. Research and Training		Global Strategy for Plant Conservation	
13. Public education and awareness		Global Taxonomy Initiative	
14. Impact assessment and minimizing adverse impacts		Impact Assessment, Liability and Redress	
15. Access to genetic resources		Indicators	
16. Access to and transfer of technology		Inland Waters Biodiversity	
17. Exchange of information		Marine and Coastal Biodiversity	50
18. Technical and scientific co-operation	20	Mountain Biodiversity	
19. Handling of biotechnology and distribution of its benefits		Protected Areas	
20. Financial resources		Public Education and Awareness	
21. Financial mechanism	20	Sustainable Use and Biodiversity	50
22. Relationship with other international conventions		Traditional Knowledge, Innovations and Practices	
23. Conference of the Parties			
24. Secretariat			
25. Subsidiary Body on Scientific, Technical and Technological advice			
26. Reports			

**13b. Is any liaison proposed with the CBD national focal point in the host country?**  Yes  No  
**If yes, please give details:**

The project would report via the COREMAP programme for the whole of eastern Indonesia directly to the CBD national focal point, so the relevant authorities would know the lessons derived from this project.



**14. If relevant, please explain how the work will contribute to sustainable livelihoods in the host country. (Max 200 words)**

The project will develop sustainable livelihoods in the following ways:

- Those people who have surrendered fishing licences will have businesses that will be producing a higher level of income than when they were fishing (if this isn't the case then the licences would not have been surrendered).
- Those fishers that remain in the fishery will have better catches than previously and with their fishing licence will have a 'share' in a closed fishery rather than the previously open access system. It will be possible to trade licences within Kaledupa, although not outside the island to avoid the problem of licences being bought up by external fishers.
- The staff required for the monitoring and management of the fishery will be funded through business generated income (see 17) from when the project finishes.

**15. What will be the impact of the work, and how will this be achieved? Please include details of how the results of the project will be disseminated and put into effect to achieve this impact. (max 200 words)**

The main impact will be the establishment of economically viable co-management of a previously open access traditional fishery, which economically benefits the fishers. This in turn will improve the understanding of biodiversity among communities and protect the National Park's biodiversity and will impact on fisheries management throughout Indonesia. Traditional fisheries have been previously considered to be undamaging to the environment, unmanageable and protected against any form of restriction by legislation until 2004 (redefinition of traditional fishers). Demonstrating that such management can work in one part of a National Park will provide a model against which other parts of the Wakatobi National Park and other National Parks in Indonesia can balance biodiversity protection with the aspirations of the communities within.

These radical changes in perception, policy and legislation will be highly publicised throughout the region via the COREMAP network of staff in various regional government departments, Technical details will be disseminated to scientists via scientific publications and COREMAP would fund visits of staff from other National Park areas in Indonesia once the Kaledupa project is established as a best practice example.

**16. How will the work leave a lasting legacy in the host country or region? (max 200 words)**

The project will have the following lasting legacies:

- An example of how reefs within a National Park can be managed for the benefit of biodiversity as well as local communities.
- Establishment of a pool of skilled staff at village level that can be used to implement similar projects elsewhere in the Wakatobi National Park and other areas of SE Sulawesi.
- A small number of key staff (Kaledupa Fisheries Manager and Kaledupa Registration Manager) will have the skills to develop similar schemes from scratch at other sites in Indonesia.
- The remaining fishers will have a sustainable fishery and those fishers and villages who have agreed contracts should have continuing income from their businesses.

It should be noted that in the absence of a project like this, the fisheries around Kaledupa are predicted to collapse even further than they have already, which will have huge social and economic consequences. The reef fisheries in other parts of eastern Indonesia are in a similar state, so the contrast between the sustainable Kaledupan fishery and the collapsed fisheries and damaged biodiversity in other Indonesian marine National Parks will be even more marked.



**17. Please give details of a clear exit strategy and state what steps have been taken to identify and address potential problems in achieving impact and legacy. For example, what steps have been taken to ensure the benefits of the project will continue despite any staff changes in these organisations? (max 200 words)**

COREMAP funding for sustainable fisheries management will be continuing for another few years after the Kaledupa project has finished so there will be continued funding available for enforcement. Once the registration system is operating then the sense of reef ownership that this engenders should ensure that it continues without the need for funding. It would not be in the financial interests of the fishers with licences to allow it to collapse or allow new entrants. The businesses for those fishers who have 'sold' their licences should continue making income. With the reduced fishing pressure the biodiversity should continue to be protected. Operation Wallacea will be operating at the site long past the end of the Darwin grant and will be funding continued monitoring of the site. The pride that will be engendered amongst the Kaledupan people of having a 'best practice' site in Indonesia should also not be under-estimated, especially since it will be generating income from visitors coming to learn from the Kaledupan example. A proportion of the business income from the aquarist supplies and ecotourism will be used for partial support of the KFF and the fisheries staff from year 3 and full support from year 4 onwards.

**18. How will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 100 words)**

The Darwin element of this flagship project is the island level fisheries management via the Kaledupa Fisheries Forum, implementation of the registration scheme to give additional management options and development of business initiatives to provide the income for the 'buy outs'. The Darwin elements are, therefore, clearly identifiable and credit can be allocated to the Darwin Initiative for these elements. However, all correspondence for the project will contain joint logos from the Darwin Initiative, COREMAP via the Wakatobi Government and Operation Wallacea as the three main funding bodies.

**19. If your project includes training and development, please indicate a) who the trainees will be, b) the criteria for selection, c) what the level and content of training will be, d) how many people will be involved, e) which countries will they be from, f) how will you measure the effectiveness of the training, g) will those trained then be able to train others and h) how will trainee outcomes be monitored after the end of the training? (max 300 words)**

The project includes training in the following categories:

- Training of fisheries scientists and monitors in the fisheries landing surveys
- Training of the registration staff in the registration process and interview data required from registrants
- Mentoring of the key Indonesian staff such as the Senior Fisheries Manager and Senior Fisheries Registration Officer and the newly operational Kaledupa Fisheries Forum.

The training is targeted at employees of the project. Posts will be advertised and interviewed with selection criteria documented.

**LOGICAL FRAMEWORK**

20. Please enter the details of your project onto the matrix using the note at Annex C of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. **Please highlight any changes.**

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Goal:</b>  <b>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</b></p> <ul style="list-style-type: none"> <li>• <b>the conservation of biological diversity,</b></li> <li>• <b>the sustainable use of its components, and</b></li> <li>• <b>the fair and equitable sharing of benefits arising out of the utilisation of genetic resources</b></li> </ul>			
<p><b>Purpose:</b>            To build capacity for sustainable fisheries co-management in the Wakatobi Marine National Park</p>	<p>KFF functioning effectively by yr1;            Fisheries monitoring and assessment functioning by yr1;            Effective enforcement system by yr3</p> <p><b>Initiation of 'buy outs' by year 2</b></p> <p>Evidence of recovery of fisheries by yr4</p>	<p>KFF quarterly meeting reports            Field survey reports and database</p> <p>Ranger and local community enforcement records            Budgets</p> <p>Project technical reports</p>	<p>National &amp; regional government act on policies that support community based co-management</p> <p>Political climate remains stable</p> <p>Fishers remain receptive to programme</p>
<p><b>Outputs:</b>            1. Fisheries co-management established and functioning under the KFF</p>	<p>KFF members trained in fisheries management by yr2</p> <p>Island wide fisheries regulations by yr2</p>	<p>KFF training workshop attendance</p> <p>Village and KFF meeting records</p>	<p>KFF members remain committed to program</p> <p>KFF legislation and zonation accepted by National Park and regional government</p>
<p>2. Effective enforcement of fisheries regulations</p>	<p>KFF develop and maintain effective surveillance and collaborative policing strategy by yr2</p> <p>Reduced levels of non-compliance by yr3</p>	<p>Community and Ranger training (funded by COREMAP) workshop attendance levels            Park Ranger &amp; community records</p>	<p>Local Rangers co-operate with KFF policing strategy            Communities are proactive in self-policing            High legitimacy of regulations</p>
<p>3. Fisheries &amp; biodiversity assessment program established &amp; functioning</p>	<p><b>Senior Fisheries Manager, 3 Fisheries Scientists and 20 Fishery Monitors trained in fisheries monitoring programme.</b></p> <p><b>Weekly fish landings surveys completed and interview data from fishers registration recorded</b></p>	<p><b>Training workshop attendance</b></p> <p><b>Database</b></p>	<p><b>Trained project staff continue to operate under KFF and use skills provided</b></p>

	<p>CRRU completes fish and biodiversity monitoring on 108 transects</p> <p>Data condensed into reports and proposed management actions for KFF to use for decision making</p>	<p>CRRU reports</p> <p>Quarterly reports to KFF</p>	
<p>4. Alternative income sources developed to provide 'buy out's of fishing licences and reduce fishing effort</p>	<p>Development of business plans to provide income for 30% (in fishing effort terms) of fishers to sell their licences</p> <p>Exchange of licences for businesses</p> <p>Generation of sufficient business income to cover KFF costs.</p>	<p>Business plans</p> <p>Data on numbers of fishing licences bought out</p> <p>Budgets from year 3</p>	<p>Businesses develop sufficient income</p>
<p><b>Activities</b></p> <p>Co-management Framework</p>	<p><b>Activity milestones (summary of project implementation timetable)</b></p> <p>Yr 1 Establish fisheries monitoring programme;</p> <p>Yr 2 Ensure KFF functions as a decision making body and registration process completed</p> <p>Yr 3 Ensure KFF has partial funding from business income</p> <p>Yr 4 Ensure KFF is self-sufficient from business income</p>	<p><b>Assumptions</b></p> <p>District government and National Park support legislation and zonation to establish KFF</p> <p>Business income from ecotourism and marine aquarist supplies is sufficient</p>	
<p>Training &amp; Capacity Building</p>	<p>Yr 1 Training for project team on monitoring and assessment techniques, database analysis and reporting to KFF;</p> <p>Yr 2 Sustainable fisheries management workshop for KFF members;</p> <p>Yr 2 Workshop to develop collaborative enforcement strategies (police, park rangers and communities)</p>	<p>Local partners remain committed to project and are effective in transferring knowledge and skills</p>	
<p>Field Research Program</p>	<p>Yr 1 Development of biological and socio-economic program; Economic study for alternative incomes</p> <p>Yr 2 Establish scientific basis for a sustainable fishery using field data;</p> <p>Yr 3 Analysis of biological and socio-economic time series data</p>	<p>Local communities remain willing to comply with fisheries and socio-economic monitoring</p>	

Dissemination & Publicity	<p>Quarterly KFF info bulletin &amp; annual report</p> <p>Yr 2 Manual produced on fisheries assessment and management</p> <p>Yr 2 - 4: radio and TV broadcasts, and national and local newspaper articles</p> <p>Yr 3 Film produced to increase public awareness of the importance of sustainable resource use; Scientific publications.</p>	Local and national press remain interested in project progress
---------------------------	--	--

**21. Provide a project implementation timetable that shows the key milestones in project activities.**

Project implementation timetable		
Date	Financial year	Key milestones
Aug 2007	Apr-Mar 2007/08	Completion of database development and fisheries landing data system finalised and documented with weekly monitoring completed thereafter.
Sep 2007		Completion of fisheries monitoring of 108 fixed transects around Kaledupa
Oct 2007		Completion of business plans for alternative businesses to provide income in exchange for 'buy outs' of 30% of the licences
Nov 2007		Completion of Training Workshop and on site training of local fisheries monitors and fisheries staff for registration process.
Dec 2007		Completion of first locally run weekly fisheries landings exercise (which will then run weekly with local staff only) Submission of report on proposed legislation for Kaledupa fisheries to Wakatobi Government
March 2008		Registration process for boats and fishers initiated after formal launch of Kaledupa Fisheries Forum. Monthly KFF meetings thereafter
Apr 2008	Apr-Mar 2008/09	Investment in agreed business plans for alternative incomes for fishers initiated
Sep 2008		Wakatobi Govt empowers KFF to manage Kaledupa reef fisheries. Weekly landing data for 12 month period, Underwater Visual Census (UVC) data from 108 transects in 2007 and 2008 and the fishers interview data presented to KFF with proposals for how they could begin to introduce local perdas (laws)
Oct 2008		Workshop training for KFF members in fisheries management and how to utilise the monitoring data being provided
Nov 2008		Completion of registration of fishers and boats. Collaborative National Park rangers extend their activities to police registration scheme (funded by COREMAP)

Dec 2008	Apr-Mar 2009/10	Workshop to develop collaborative enforcement strategy and implementation of regular patrolling (funded by COREMAP)
May 2009	Apr-Mar 2010/11	Alternative businesses offered to licence holders to reduce fishing effort by 30%
September 2010		Fisheries landing data, transect data and socio-economic surveys reveal a recovery in the fishery and protection of the biodiversity.

**22. Set out the project's measurable outputs using the separate list of output measures.**

<b>PROJECT OUTPUTS</b>		
<b>Year/Month</b>	<b>Standard output number (see standard output list)</b>	<b>Description (include numbers of people involved, publications produced, days/weeks etc.)</b>
Years 1 & 2	6A	20 Fishery Monitors and 3 Fisheries Scientists
Years 1 & 2	6B	20 KFF members
Years 1 - 4	8	2 X 1 week training courses and mentoring for 3 months
Years 1 - 4	9	160 man weeks
Year 2	10	12 quarterly fishery management reports
Years 1 - 4	11A	1 Fisheries Monitoring Manual
Years 1 - 4	11B	15 papers to be submitted
Year 2	12A	15 papers published
Years 1 & 2	14A	1 fishery database
Years 2 & 4	14B	2 workshops to be organised (fishery survey, KFF management training)
Years 1 - 4	15A	3 presentations at seminars
Years 1 - 4	15B	3 national Indonesia newspaper articles
Years 1 - 4	15C	6 local paper articles
Years 1 - 4	16A	3 UK national Press releases
Years 1 - 4	16B	12 X quarterly KFF newsletters
Year 4	16C	1000 readership in Indonesia
Years 1 - 4	17B	25 readership in UK
Years 1 - 4	18A	1 information network established by COREMAP
Years 1 - 4	18B	3 Indonesian national TV programmes
Years 1 - 4	18C	1 national UK TV programme
Years 1 - 4	19A	4 local Indonesian TV programmes
Years 1 - 4	19B	3 Indonesian national radio programmes
Years 1 - 4	19C	1 national UK radio programme
	20	4 local Indonesian radio programmes
	21	£1000
	22	1 fishery and biodiversity research centre will continue after Darwin
	23	108 X 50m transects
		£402,750

**PROJECT BASED MONITORING AND EVALUATION**

**23. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.**

Achievement of the overall purpose to build capacity for sustainable fisheries co-management in the Wakatobi Marine National Park would be indicated, monitored and evaluated by the following:

- KFF functioning effectively - this would be assessed from the monthly meeting reports in relation to the ability of the KFF to take management decisions rather than just acting as a discussion group.
- Fisheries monitoring and assessment functioning - Field survey reports and database produced by Forkani
- Effective enforcement system - Police and Community records (increased detection and prosecution).
- Viability of businesses to be exchanged for fishing licences - business plans and success in persuading fishers to accept businesses in exchange for their fishing licences.
- Evidence of recovery of fisheries - Project technical reports (increase in target size, CPUE per fisher and improved economic return for fishers through sustainable fisheries management)