

**Lake Kutubu Catchment Management Plan, Southern Highlands Province,  
Papua New Guinea.**

**Pilot and Demonstration Activity (PDA)**

**Project Inception Report**



**Prepared by *WWF South Pacific PNG Programme* for the Asian  
Development Bank (ADB).**

**26 January 2007.**

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## Table of Contents

1. Introduction	1
2. Objectives	1
3. Scope of Activities.....	2
4. Budget Plan and Activities.....	3
5. Stakeholder Participation.....	3
6. Community Awareness.....	4
7. Project Management and Monitoring.....	4
8. Project Implementation Timeframe.....	5
9. Reporting System.....	6
Appendix 1 Terms of Reference #1– Community Planning Consultant.....	7
Appendix 2 Terms of Reference #2– Catchment Planning Consultant.....	9
Appendix 3 Detail Work Plan.....	11
Appendix 4 Map of Kikori Basin.....	12
Appendix 5 Budget and Planned Activities.....	13

## **1. Introduction**

Catchment planning in the lake Kutubu is a new concept to be developed in Papua New Guinea. Although the government through the Department of Environment and Conservation has a concept in place for, 'Total Catchment Environment Management Policy' (TCEMP), its implementation is yet to be realized and currently steps are being taken by the government to make this concept a reality. The capacity to undertake the required task seems non-existent. Therefore this project will serve as a pilot project for catchment management in PNG and if successful, some of the 'lessons learnt' will be incorporated into the government's much talked about TCEM policy.

In Papua New Guinea, there is an abundance of natural resources, but their use has become rapid and unsustainable. Forest degradation as a result of industrial logging is prevalent throughout the country. River basins and their ecosystems are being threatened due to human-induced actions. The lake Kutubu is situated in a very vulnerable location where an oil operation is also taking place. Very importantly, it has some of the world's abundant biodiversity ecosystems and therefore warrants a high degree of protection from all kinds of disturbances and habitat loss. The initiative taken by WWF PNG to establish a catchment management plan will be very useful in protecting the natural resources of the people and allowing them to use these resources on a sustainable basis.

Stakeholder consultation in this project is a vital component throughout the project implementation process. It really begins from project planning stage through the implementation stage and to the completion stage. Stakeholder participation is seen as a key to successfully completing the project. This participation will involve quite a number of activities; carrying out awareness to the communities, facilitating workshops to stakeholders on the concept of catchment management, having regular meetings with major stakeholders including the Lake Kutubu Local Level Government, the Southern Highlands Provincial Government and the community leaders. Through such approaches we indeed would like to ensure that there is a continuous dialogue with the people and stakeholders and implementation of the project is understood by all. This would be the greatest challenge to us as the implementing agency to make sure that the local authorities and people are well equipped with the catchment planning concept as they would be the ones to ensure the plan is utilized as much as possible to safeguard the integrity of the Lake Kutubu Catchment.

Awareness to communities will come in a number of forms; through direct conversation with the people, through development of posters and disseminating them to local communities and educational institutions such as schools. Radio programmes would also be held to disseminate information to the wider communities. We would also encourage as much as possible the involvement of the communities in the decision making process.

## **2. Objective.**

The main objective of this project is to assist the government and local stakeholders to design an integrated catchment management framework for the lake Kutubu catchment. The development of this plan will protect biological diversity and ecological processes while promoting the sustainable management and utilization of natural resources supported by properly implemented catchment management policy.

### **3. Scope of Activities.**

As outlined in the PDA, this project will work towards achieving one major goal and that is an integrated catchment management plan established for Lake Kutubu. However, the achievement of this final product is subject to a number of associated activities. WWF PNG is the ‘implementing agency’ (IA) in this project and it has outlined four major outputs;

1. A biological vision and target setting for Lake Kutubu
2. A community vision developed for the management of Lake Kutubu catchment/ecoregion
3. A catchment management forum established for Lake Kutubu for addressing stakeholder interests and
4. A catchment management plan established for Lake Kutubu

In association with these major outputs identified, a number of activities to be undertaken include;

- Awareness to communities and other stakeholders
- Collection of appropriate baseline information on the social, economical and biological aspect of the catchment. Identification of threats to biodiversity is important as part of the overall analysis for the establishment of the catchment management plan.
- Facilitate workshops
- Conduct meetings
- Regular consultation with major stakeholders
- Liaise with the government authorities especially the Department of Environment and Conservation to commit itself to this project and also to further provide input towards the development and implementation of the government’s “Total Catchment Environment Management Policy” (TCEMP).

### **Activity Analysis**

The analysis of each activity would be done during the implementation process. We would as much as possible want to see that the output of each activity is accomplished in line with each work activity.

### **Biological vision and target setting**

Biological information gathering is a vital component in this activity. All data with regards to biodiversity would be collated and put into a state of Lake Kutubu report (a reconnaissance report). This report gives all the necessary information on the biological aspect of the lake Kutubu catchment. Identification of priority areas and mapping these priority areas is a vital task and would be carried out as recommended. These priority areas may be high biodiversity areas and therefore would require a high degree of protection from any human induced disturbances and ecosystem change.

## **Community vision for the management of Lake Kutubu catchment/ecoregion.**

The immediate task here is to compile a socio-economic background report for Lake Kutubu which will be useful in the catchment planning process. Community visits and awareness is an essentially important task in this project which we have already started doing some initial discussion and awareness to the communities. We also stress that community involvement is important and we endeavor to see that communities and the local people are properly informed of the project and that is one of the task that will be undertaken through awareness programmes. We will also facilitate workshops and from this, gauge the views and perception of the communities on the values and threats of the Lake Kutubu catchment. Awareness raising to the communities would involve very simple techniques such as posters and community meetings. This would also be done in the simple language as possible where the local dialect would be used. Getting the information across to the communities is vital and we ensure that the people are properly informed.

## **Lake Kutubu Catchment Forum established to represent stakeholder interest**

The establishment of a Lake Kutubu catchment management forum is vital in that this group through its members will identify the priority values, threats and mobilize actions for dealing with the issues. This forum will help and assist in putting together strategies for use in the catchment planning process.

## **A Catchment Management Plan for Lake Kutubu.**

This is the final product after the completion of the project. A catchment management plan established for Lake Kutubu will address all the relevant issues regarding social, economical, biological and the threats involved and an outline of how best to manage the catchment so that as much as possible the catchment is still in a reasonably healthy stage. This plan when successfully established will be used as a model catchment management plan in Papua New Guinea.

## **4. Budget Plan and Activities**

ADB has provided the necessary funding for the implementation of the PDA- Lake Kutubu Catchment Management Plan. The provision of these funds would be utilized fully in all the activities planned to achieve the goals of the project. A detailed work plan and budget is shown in appendix 5. In the case where consultants will have to be engaged, a separate budget detailing the activities, travel and field work will be specified according to ADB's guidelines for recruiting consultants. However, in this case we have included the terms of reference for the consultants in appendix 1 and 2.

## **5. Stakeholder Participation**

This project anticipates a wider stakeholder participation and commitment in the implementation of this pilot project. Identification of stakeholders is an important area in this project. Obviously some of the key partners that would be involved in the implementation of this project in one way or the other include;

- The local communities of the lake Kutubu catchment;

- The Lake Kutubu Local Level Government
- Oil Search Limited
- Department of Environment and Conservation
- The Southern Highlands Provincial Government
- The Community Development Initiative (CDI) Foundation Trust
- Some other scientific and environmental NGOs.

Initial discussions have been made with certain stakeholders such as the Lake Kutubu Local Level Government. The Department of Environment and Conservation is well aware of the project and have indicated its support towards the project. Oil Search as the oil developer within the area has also shown its commitment to support the project. Further discussions and dialogue would be held during the implementation process. Therefore it is indeed our strong ambition to fully involve all these key stakeholders and ensure that they are committed to the project and would fully participate in the catchment planning process.

## **6. Community Awareness**

The implementation of this project will need a lot of awareness to the communities. The local people as the customary owners of the catchment area should be well informed so that they have a clear understanding of the importance of Lake Kutubu catchment as an area of high biodiversity and ecological significance. Awareness to communities will involve various techniques; use of posters as a pictorial form to get the message across to the people. Very simple language either in Pidgin or local dialect would be used to ensure the message gets to the people. Use of video will be another mode of information dissemination. Pictures shown here relates to similar projects held in other countries and their successes, some on environmentally destructive operations which have had a lot of negative impact on the local population. Direct conversation with the local people will be the main medium of awareness. During this process, the local people will also be encouraged to discuss their ideas and views on what they perceive would be the appropriate way in managing their resources. This allows for a two way communication process which we strongly encourage.

## **7. Project Management and Monitoring**

Monitoring of the project is an integral part in the implementation process. As soon as the project becomes fully operational, meaning the execution of planned activities has fully begun, monitoring would also be initiated. This will be a continuous process in overseeing the implementation of the project throughout the specified period. It will ensure that input deliveries, work schedules, the carrying out of targeted outputs and other required duties are done according to time and plan.

WWF as the implementing agency (IA) would ensure that strict schedules are followed to ensure production of quality outputs and results are obtained as planned. The overall objective of setting up a monitoring and evaluation system is to identify and promote the necessary actions needed to improve the implementation of the project. During the implementation process, there may be unidentified constraints and obstacles therefore continuous monitoring is required so that alternative plans and designs can be made to suit the situation.

The implementation of this Pilot Demonstration Activity (PDA) or the Lake Kutubu Catchment Management Plan is a one year project as specified in the time frame. Therefore the monitoring and evaluation system ensures that targeted results obtained are measured against time and if needed further improvements can be made during the implementation period for quality and efficiency.

In this project, a primary person or team leader would be responsible for monitoring and evaluation of the progress of the planned activities. This person or team leader will be responsible for evaluating a number of variables; planned activities against time, scope of activities, the depth at which each activity is being undertaken and the final output or the accomplishment of each activity measured against the implementation schedule. Targets have been set for each activity and the monitoring and evaluation process will simply be structured around those targets. The evaluation process will also focus on measuring some core indicators identified in the output for each activity. The monitoring and evaluation report will be done quarterly and the final evaluation report would be prepared and presented together with the final project completion report.

In summary, as part of the monitoring and evaluation system, the following steps would be undertaken throughout the implementation process;

1. All activities will have set targets and timeframes allowing easy measurement of their progress
2. Targeted outputs for each activity will be evaluated and measured against indicators
3. Targeted results not accomplished as scheduled would be reported and the reason stated for not achieving the required result. This will require extension of activities and it would be appropriate that some flexibility be given to allow design and deviation of plans to suit the situation.
4. A primary person or an evaluation team comprising three people will be responsible to undertake the monitoring programme. These three people comprise the Project Manager, Deputy Project Manager and the Catchment Management Officer who are all employees of the implementing agency – WWF PNG's Kikori River Programme. However, close consultations will also be held with stakeholders to oversee project implementation.
5. The project team or the three lead people to meet on a regular basis to review the success of each activity and also have continuous consultation with stakeholders.

The monitoring programme will include;

- Monthly/quarterly monitoring reports
- Six monthly reviews of work plans
- Evaluation of trainings and workshops

## **8. Project Implementation Timeframe**

This project is proposed to be carried out within a 12 month period. It starts in January 2007 and should be completed by December 2007. The detailed work plan and time schedule can be found in **appendix 3**.

## **9. Reporting System**

The reporting system will coincide with the project monitoring system. The technical report would include;

- Monthly reports. This monthly reports would be prepared only for the ‘implementing agency’ (WWF PNG) and or their management team. This report will be done to assess monthly targets and their outputs.
- Quarterly reports will be the main reference report to be prepared and sent to ADB on the progress of the activities.
- A six monthly review of the project will also follow and
- The final twelve months report detailing the outputs and success of the project

## Appendix 1

### Terms of Reference

The implementation of this project will have two consultants who will carry out separate duties as outlined in their ToR. One will be responsible for developing a *community planning process* and the other for developing the *Lake Kutubu catchment management plan*.

#### TERMS OF REFERENCE (#1)

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<b>Title</b>	:	Framework for Community Planning Process for Catchment Management Plan for Lake Kutubu in SHP, Papua New Guinea.
<b>Name</b>	:	Marc Wohling
<b>WWF Project</b>	:	Kikori River Programme
<b>Project No(s)</b>	:	PG 0013.01-6311 (Kikori River Programme) and PG0013.08 (ADB PDA)
<b>Reports to</b>	:	Eric Manasi
<b>Duration</b>	:	Trip 1 (14 Feb-23 Feb 2007) Trip 2 (March- April 2007) **dates will be confirmed after 1 <sup>st</sup> trip

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#### 1. Major Functions:

1. With WWF staff and partners, develop **a framework for a community planning process** as part of the development of a catchment management plan for Lake Kutubu catchment. This will use a participatory approach based on **the community visioning** methodology developed in the TransFly ecoregion, on the mobile team methodology and other PNG appropriate approaches.
2. Train staff and partners in the application of this process.

#### 2. Tasks:

1. Meet with WWF PNG KRP Management staff in Sydney on 14 December 2006 for initial discussions to map out the processes involved in developing a framework for the community planning approach for development of a Catchment Management Plan for Lake Kutubu.
2. Identify key stakeholders within the Lake Kutubu catchment and other relevant agencies and specific roles they would contribute in the community planning process for Lake Kutubu catchment.
3. Facilitate awareness workshop on Integrated Catchment Management and Community Visioning for Programme staff (including communications strategy) and key stakeholders.
4. Facilitate village workshops to understand community perceptions of the values and threats of the Lake Kutubu catchment management.

5. Develop a framework of community planning process for the development of the catchment management plan for Lake Kutubu catchment in the next 12 months.
6. Collate and prepare a draft Lake Kutubu socio-economic background report(s).
7. Provide advice on the production of the appropriate awareness materials on (i) ICM, (ii) Lake Kutubu values and threats, (iii) significance of Lake Kutubu.
8. Compile reports on the socio-economic values of Lake Kutubu, community vision for the management of Lake Kutubu and framework on the community planning process for the development of the Lake Kutubu catchment management plan.

**3. Outputs:**

1. A detailed **framework of community planning process and workplan** for the Kikori River Programme for the development of Lake Kutubu catchment management for 12 months.
2. **Report** on the community perception of the socio-economic values and threats of the Lake Kutubu and community visioning of the Lake Kutubu catchment management.

## Appendix 2

### Terms of Reference Catchment Management Planning Consultant.

#### Terms of Reference (#2)

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<b>Title</b>	:	Develop a community-based catchment management plan for Lake Kutubu.
<b>Name</b>	:	Mainstream Consultant
<b>WWF Project</b>	:	Kikori River Programme
<b>Project No</b>	:	PG0013.01-6311 (Kikori River Programme) and PG0013.08 (ADB PDA)
<b>Reports to</b>	:	Eric Manasi
<b>Duration</b>	:	2 months; from June to July 2007

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#### I. Major Function

To develop a community – based **catchment management plan** for Lake Kutubu Catchment, which will protect biodiversity and promote sustainable use of resources.

#### II. Major Duties and Responsibilities

1. Collect and collate data for the preparation of lake Kutubu biological background report and maps of priority areas
2. Compile biological and socio-economic information into a state of lake Kutubu report (reconnaissance report) – built on from initial work done by WWF and recently by two French students on the biological and socio-economic status of the lake Kutubu catchment
3. Take lead in developing the process for catchment management planning
4. Conduct biological target setting workshop by email group through a meeting of scientists in Australia and PNG and produce a biological vision map.
5. Involve in conducting community visits, awareness and assist identify existing and potential threats.
6. Identify key stakeholders and their roles in the establishment of the catchment management plan.
7. Organize and facilitate workshops to different stakeholders on the strategies for the establishment of a catchment management plan including staff and local communities
8. Assist and facilitate the establishment of lake Kutubu catchment management forum

9. Assist in the development of the catchment management framework for lake Kutubu catchment
10. Prepare information materials for web publication
11. Outline strategies to establish lake Kutubu as a model catchment management area through the ICM approach
12. Final report on the development of the Lake Kutubu catchment management plan with the strategies established.
13. Assist with other tasks as required.

### **Outputs**

1. Produce a status report of the lake Kutubu catchment management plan
2. A framework for the lake Kutubu catchment management plan established
3. By the end of the period specified in the ToR, a full report should be prepared outlining the strategies and the establishment of the lake Kutubu catchment management plan.
4. A biological vision map and priority areas map for lake Kutubu catchment completed
5. A catchment management forum established for lake Kutubu
6. A comprehensive catchment management plan established for lake Kutubu catchment

## Appendix 3

### Detailed Work Plan: Jan – Dec 2007

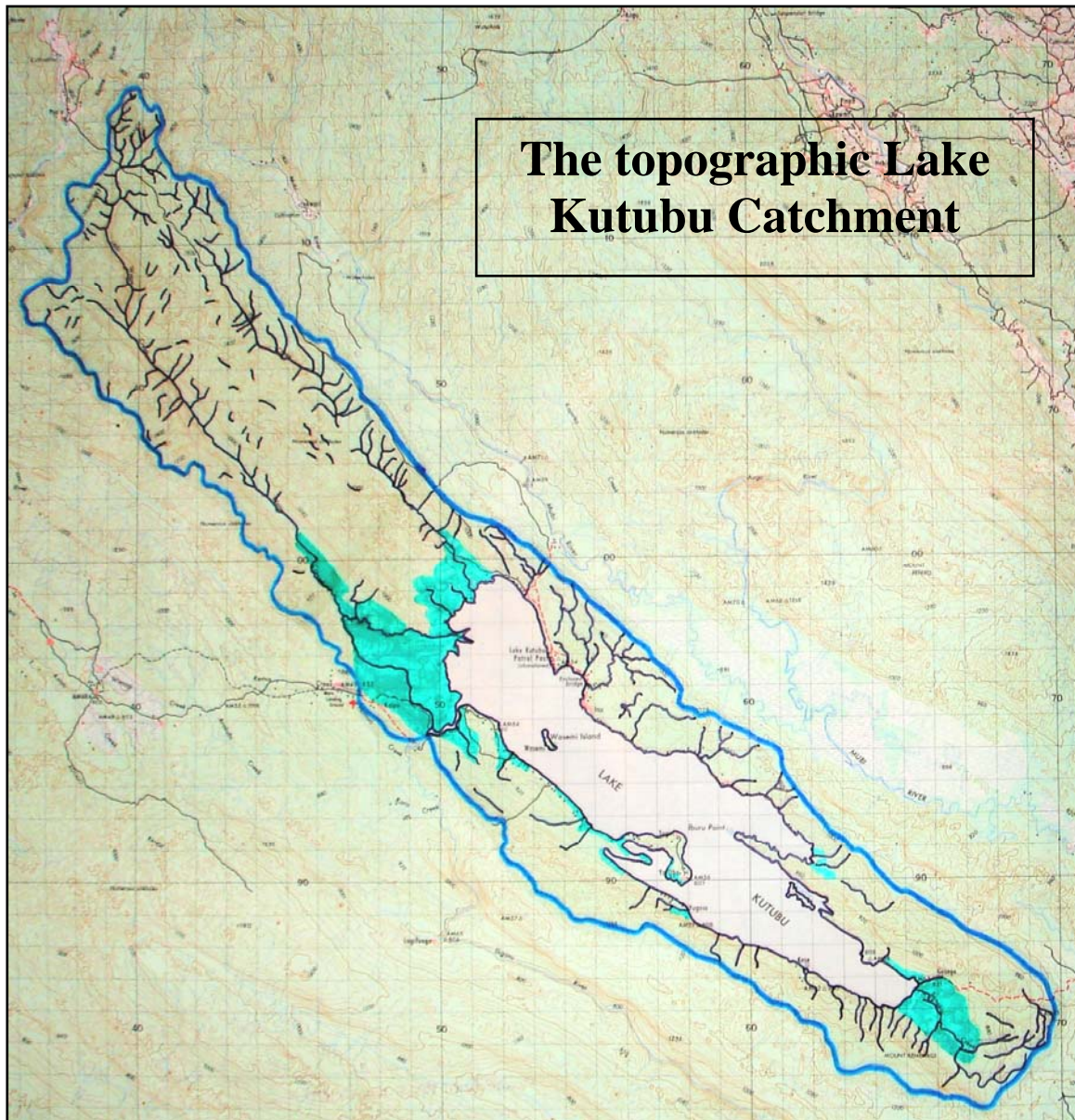
Activity	J	F	M	A	M	J	J	A	S	O	N	D
<b>1. Biological vision and target setting</b>												
1.1 Biological background reports and maps of priority areas						X						
1.2 Compile bio/socio-econ reports						X						
1.3 Biological target setting workshop (PNG/Australia)							X					
<b>2. Community Vision</b>												
2.1 In-house workshop for staff		X										
2.2 Socio-economic reports			X									
2.3 Facilitate village workshops				X								
2.4 Develop awareness materials					X							
2.5 Web publication										X		
<b>3. Establish Catchment forum</b>												
3.1 Strategies clarified and established							X					
3.2 Facilitate forum establishment						X						
3.3 Group identifies values, threats and action plans										X		
<b>4. Catchment Management Plan</b>												
4.1 Compile strategies for CMP										X		
4.2 Stakeholder consultative workshop										X		
4.3 CMP draft circulated											X	
4.4 Final CMP launched												X

#### Legend:

**X:** Time each activity is proposed to be undertaken

## Appendix 4

### Topographic map of Lake Kutubu Catchment



## Appendix 5

### Budget and Planned Activities.

	<b>Budget (US\$)</b>
<b>1: Biological vision and target setting completed for Lake Kutubu</b>	
1.1 Prepare Lake Kutubu biological background report(s) and maps of priority areas	3,000
1.2 Collate and compile biological and socio-economic information into a 'State of Lake Kutubu' report (reconnaissance report)	2000
1.3 Conduct a biological target setting workshop by email group and through a meeting of scientists in Australia and PNG and produce a biological vision map	8000
<b>2: A community vision for the management of the Lake Kutubu catchment / Ecoregion</b>	
2.1 Conduct in-house awareness workshop on ICM and community visioning for project staff (including communications strategy)	3000
2.2 Prepare Lake Kutubu socio-economic background report(s)	3000
2.3 Facilitate village workshops to understand community perceptions of the values and threats of the Lake Kutubu catchment management	3000
2.4 Develop awareness materials on (1) ICM (2) Kutubu values and threats (3) significance of Lake Kutubu	2000
2.5 Disseminate information on Lake Kutubu ICM through web publication	1000
<b>3: A Lake Kutubu catchment forum to represent stakeholder interests and mobilize action</b>	
3.1 Clarify strategies to establish Lake Kutubu as a model catchment management area through the ICM approach	1000
3.2 Facilitate the establishment of Lake Kutubu catchment forum	2500
3.3 Kutubu catchment management group identifies priority values, threats and actions for catchment management	2000
<b>4: A catchment management plan for Lake Kutubu.</b>	
4.1 Compile catchment management plan for Lake Kutubu	2000
4.2 Facilitate stakeholder consultative workshop to design and develop Lake Kutubu catchment management plan	4000
4.3 Catchment management plan draft circulated for comments	1000
4.4 Final catchment plan published and launched	5000
<b>Management Fees</b>	<b>6437</b>
<b>Total</b>	<b>48,937</b>