ITTO

PROJECT PROPOSAL

TITLE DEVELOPMENT OF QUALITY-OF-GOVERNANCE STANDARDS

FOR REDUCING EMISSIONS FROM DEFORESTATION AND

FOREST DEGRADATION(REDD) IN PAPUA NEW GUINEA

SERIAL NUMBER PD 682/13 Rev.1 (F)

COMMITTEE REFORESTATION AND FOREST MANAGEMENT

SUBMITTED BY GOVERNMENT OF PAPUA NEW GUINEA

ORIGINAL LANGUAGE ENGLISH

SUMMARY

The PNG Forestry Authority (FA) has undertaken a variety of initiatives to fully promote the concept of REDD+, including reviewing provincial forest plans, undertaking internal restructuring and launching new policy initiatives, and is implementing 5 REDD+ demonstration activities. However, climate change policies have not been mainstreamed in all government departments, and decisions have been taken that continue to place millions of hectares of forest under threat. There also needs to be more consultation in the design of the national REDD+ strategy and related policy documents and guidelines. Without strengthening governance to ensure commitment to REDD+ across departments and broad stakeholder support, REDD+ performance-based payments will not be forthcoming at scale.

With this understanding, the development objective of the proposed project is strengthened governance of REDD+ strategy development and implementation in Papua New Guinea to achieve climate change mitigation and national development goals through the sustainable management and enhancement of forest resources. The Project will contribute to this objective through the development of a voluntary standard for REDD+ quality-of-governance, which can strengthen governance by guiding and evaluating REDD+ structures and processes at national and sub-national levels. The REDD+ quality-of-governance standard will be developed through a proven robust multi-stakeholder process that involves an online survey, face-to-face interviews with key stakeholders, a multi-stakeholder forum workshop, and field-testing at demonstration sites.

EXECUTING	AUSTRALIAN CENTRE FOR SUSTAINABLE CATCHMENTS
AGENCY	(ACSC), UNIVERSITY OF SOUTHERN QUEENSLAND (USQ) IN

CLOSE COLLABORATION WITH PNG FOREST AUTHORITY

COOPERATING GOVERNMENTS

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APPROXIMATE TO BE DETERMINED

STARTING DATE

BUDGET AND PROPOSED Contribution Local Currency SOURCES OF FINANCE Source in US\$ Equivalent

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TOTAL 179,744

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LIST of ABBREVIATIONS and ACRONYMS

ACSC	Australian Centre for Sustainable Catchments
COP	Conference of Parties
EFF	EcoForestry Forum
FCCFA	Forestry and Climate Change Framework for Action 2009-2015
FORCERT	Forest Management and Product Certification Service
FIA	PNG Forest Industries Association
FPCD	Foundation for People and Community Development
FRI	PNG Forest Research Institute
GU	Griffith University
FROs	Forest Resource Owners
IGES	Institute for Global Environmental Strategies
INA	Institute of National Affairs
ISO	International Standardisation Organisation
ITTA	International Tropical Timber Agreement
NCCARF	National Climate Change Adaptation Research Facility
NGO	Non-governmental Organisations
NRI	PNG National Research Institute
PCI&V	Principles, Criteria, Indicators and Verifiers
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forest Authority
PWM	Partners with Melanesians
REDD(+)	Reducing Emissions from Deforestation and Degradation; (+) the role of conservation, sustainable management of forests and enhancement of forest carbon stocks
TNC	The Nature Conservancy
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNITECH	PNG University of Technology
UPNG	University of Papua New Guinea
USQ	University of Southern Queensland
WWF	Worldwide Fund for Nature

1. PROJECT CONTEXT

1.1. Origin

PNG and other Parties to the UNFCCC agreed at the 16th COP in Cancun to include "transparent and effective national forest governance structures, taking into account national legislation/sovereignty", and "full and effective participation of relevant stakeholders" as safeguards for REDD+. Building transparent and effective national forest governance structures and achieving full and effective participation of stakeholders are important challenges for PNG. Direction and processes are now required to achieve these outcomes.

Discussions between a wide range of forest stakeholders at two workshops on REDD+ in PNG (INA-IGES REDD+, PES and Benefit Sharing Workshop, 17-18 Feb. 2011 and INA-IGES REDD Capacity Building Workshop, 1-3 March 2010) indicate the value to PNG of a quality-of-governance standard. At the workshops, PNGFA, other government departments, industry, NGOs and technical institutes described problems and discussed solutions regarding deforestation drivers (e.g. inappropriate use of the lease-leaseback system), transparency of REDD+ financing, international representation on REDD+, carbon rights, etc.

Governance has been identified as central aspect of sustainable forest management. While all participants within the forest policy arena would agree with this observation, it has been less easy to determine how best to evaluate forest governance. A significant contribution in this regard has been the work of Dr Tim Cadman, whose recently published research monograph *Quality and legitimacy of global governance: case lessons from forestry* clarified for the first time the main features underpinning best practice governance in the forest arena. Building on the work of the 1992 UN *Statement of Forest Principles*, and using a hierarchical framework of principles, criteria and indicators (PC&I), Dr Cadman has developed a consistent approach to evaluating forest governance at the global, regional, national and local levels. Tim and Tek applied his work to a range of global policy mechanisms, including REDD+, and has been used by the forest sector in developing countries (Nepal) to develop on-the-ground standards for evaluating REDD+ effectiveness and governance quality. Standards allow for the certification of forest management, and provide assurance to investors and beneficiaries regarding the market value of REDD+. This creates certainty in the market, and encourages future financing of REDD+ projects in developing countries.

The approach has been tested by the Executing Agency in a pilot programme funded by the Ministry of Environment, Japan, in Nepal from July 2011 - February 2012. The approach was successful in facilitating stakeholder development of an informal draft voluntary standard for the sustainable use and management of forest biomass. The proposed project will build on these positive outcomes.

1.2. Relevance

1.2.1.Conformity with ITTO's objectives and priorities

The proposed project complements the objectives of the International Tropical Timber <u>Agreement</u> (ITTA) of 2006, to promote the expansion and diversification in international trade of tropical timber originating from sustainably and legally managed forest operations. More specifically, the project will assist PNG in meeting the following objectives:

By developing a forest governance standard through a multi-stakeholder process that contributes to climate change mitigation and national development goals, this project will: (1) provide an effective framework for consultation, international cooperation and policy development among all members (objective 1a); (2) contribute to sustainable development (objective 1c); (3) contribute towards mechanisms for the provision of new and additional financial resources (objective 1g); (4) encourage members to recognize the role of forest dependent indigenous and local communities in achieving sustainable forest management and develop strategies (objective 1r); and (5) identify and address relevant new and emerging issues (objective 1s).

Organising multi-stakeholder forum workshops in PNG will: (1) strengthen the capacity of members to improve forest law enforcement and governance (objective 1n); (2) encourage information sharing for a better understanding of marketing mechanisms to promote sustainable management of tropical forests, and assisting members with their efforts in this area (objective 1o); and (3) enhance the capacity of members to implement strategies for achieving exports of tropical timber and timber products from sustainably managed sources (objective 1d).

1.2.2. Relevance to the submitting country's policies

Vision 2050

Vision 2050 incorporates the national Government's Strategic Directional Statements to drive development initiatives over the next 40 years. It is designed to map out the future direction of the country, reflecting the aspirations of its entire people. The vision elaborated in this document is "We will be a Smart, Wise, Fair, Healthy and Happy Society by 2050." Being wise means "that our people, our institutions and our systems will practise and uphold transparency, accountability and good governance." The proposed project contributes to the realisation of Vision 2050 by creating a quality-of-governance standard through a multi-stakeholder process that can be used to evaluate existing governance as well as guide the strengthening of governance. The standard formulation process itself will contribute to strengthened governance by bringing diverse REDD+ and forest sector stakeholders together to elaborate a standard for forest governance in PNG that they can all agree on.

PNG Development Strategic Plan 2010-2030

In PNG Development Strategic Plan 2010-2030, good governance and broad based growth are considered essential to build PNG into a prosperous nation, including by facilitating PNG investors. Weak governance will deter investment in REDD+ and could negatively impact PNG's global reputation as a leading proponent of REDD+ in the international climate negotiations. The proposed project will encourage greater foreign investment in REDD+ activities by creating a quality-of-governance standard as a tool for strengthening REDD+ and forest sector governance, and providing market assurance.

FCCFA

The Forestry and Climate Change Framework for Action 2009-2015 (FCCFA), launched by the Minister for Forestry in 2010, provides a road map for the forestry sector to address climate change. The 7 principles of the FCCFA are: Principle 1 – Ownership of Carbon Credits; Principle 2 – Implementing Adaptation Measure; Principle 3 – Contributing to Mitigation of Greenhouse Gas Emissions; Principle 4 – Improving Decision – Making and Good Governance; Principle 5 – Improving Our Understanding of Forestry and Climate Change; Principle 6 – Promoting Education and Awareness; Principle 7 – Promoting Partnerships and Cooperation. FCCFA asserts that climate change requires a multi stakeholder approach and cannot be handled by one sector alone. The proposed project will support greater coordination between government departments to provide a more effective response to deforestation and forest degradation, by engaging them in a multistakeholder process to discuss and agree on governance issues confronting natural resources management.

PNGFA National Forest Development Guidelines

The aims of the current National Forest Development Guidelines include (i) promoting the input of resource owners, local and provincial interests in co-ordination with reliable investors to engage in and better develop secure resources access, protection and sustainability of forest based industries, and (ii) the use of carbon based schemes for adaptation and mitigation. The proposed project will encourage investment in sustainable forestry through carbon based schemes by showing investors that PNGFA has prioritised governance issues and is strengthening collaboration with other departments involved in REDD+ and land use management/development.

National Forest Policy (1991)

The National Forest Policy states that meaningful participation and involvement in the forest and related industries for nationally owned enterprises and Papua New Guinean citizens, especially resource owners, will be promoted and encouraged at all levels. The proposed REDDES Project will ensure full participation of all stakeholder groups in the development of a national quality-of-governance standard through face-to-face interviews, a multi-stakeholder forum, and field-testing.

As discussed in the above sections the project is well-aligned with national government priorities and strategies, including Vision 2050, Development Strategic Plan 2010-2030, FCCFA, and National Forest Policy. The PNG Forestry Authority (FA) has undertaken a variety of initiatives to extensively promote the concept of REDD+, including reviewing provincial forest plans, undertaking internal restructuring and launching new policy initiatives, and is implementing 5 REDD+ demonstration activities. However, without strengthening governance to ensure commitment to REDD+ across departments and broad stakeholder support, REDD+ performance-based payments will not be forthcoming at scale. The project will address this matter by the development of a voluntary standard for REDD+ quality-of-governance, through a proven robust multi-stakeholder process that involves an online survey, face-to-face interviews with key stakeholders, a multi-stakeholder forum workshop, and field-testing at demonstration sites. Extensive effort will be taken in ensuring key stakeholders are involved in all stages. The inputs and outputs will be presented at a national forum, and then opened to public review. A constant 'snowballing' technique of stakeholder engagement will continue during the course of the project.

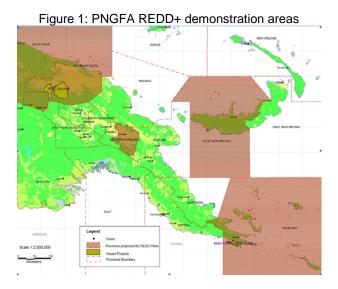
The project would be guided by PNG (FA), which is also the implementing agency of the REDD+ activities, therefore there is significant chance of implementation of the developed standards by FA. The grant applicants have tested the approach in Nepal, and are actively communicating with the REDD+ policy community (UNFCCC, FAO, FCPF, UN-REDD, CDM, INGOS, IPOS, APN, ESG etc). The project is expected to keep this momentum. Therefore, the governance standards generated will reach to broader REDD+ community, and provide a template for future negotiations between experts, governments, civil society and business communities in the ITTO region. Moreover, reports will be made available to governmental, business and civil society organizations for implementation on the ground, and the research team will present at intergovernmental conferences (e.g. COP-19, ITTO, APN etc).

1.3. Target Area

1.3.1.Geographic location

As this is a project to develop a <u>national</u> output in the form of a quality-of-governance standard, the "target area" is essentially the entire country. As part of the development process, once the online survey has created the first draft of the quality-of-governance standard, the draft standard will be elaborated through face-to-face interviews, and the national multi-stakeholder forum, and will then be field tested at selected REDD+ demonstration sites.

In 2008, PNGFA initiated a small working group, including staff from UPNG, UNITECH and FRI, to select pilot REDD+ provinces and possible pilot sites. The provinces selected were West New Britain, Sandaun, Milne Bay and Eastern Highlands, providing a broad geographical spread across the 4 regions of the country. The criteria for province selection included: Provincial Forest Plans must be approved; fair distribution of pilots in the 4 regions; REDD+ pilots to be located in different altitudinal zones and forest types; REDD+ pilots to be located in high risk areas – cyclones, fires, population increase, forest harvesting, oil palm expansions; REDD+ pilots to be located in various resource ownership areas (patrilineal and matrilineal). In 2010, the National Executive Council approved the 4 initial provinces, the respective Provincial Forest Management Committees were consulted, and the provinces selected pilot sites and the types of activities to be implemented. East Sepik province was later added to the four original provinces.



1.3.2. Social, cultural, economic and environmental aspects

While there are large regional and location disparities, the following observations apply across PNG.

Almost all land (97%) is held under systems of customary tenure, involving clans or kinship groups. Customary tenure is established by kinships systems that apply to each social and linguistic grouping. Customary rights recognised by the Constitution include rights to all natural resources, with the exception of minerals, petroleum, water and genetic resources. This means that for PNG's forests, any "development", including REDD+, cannot take place without the consent of the customary landowners. Moreover, the "PNG Forestry and Climate Change Policy Framework for Action" emphasises the need for a multi-stakeholder approach REDD+ programme that engages customary landowners at the local level, at the same time enhances the capacity of government institutions at the national level. Whilst customary landowners are generally well informed about the quality of their forests, they are often excluded from forest management decision-making processes, and associated development opportunities (e.g. REDD+ financing mechanisms). These groups will be actively involved in each stage of the standard development process. The key driver for this project is the belief - which is now tested via the pilot standards setting undertaken in Nepal - that the greater the level of stakeholder involvement in standards setting, the more chance there is to meet stakeholder needs. Working collaboratively with all parties to develop what they see to be the necessary compensation mechanisms (subject to REDD+ requirements) is central to the project.

Rural communities have an intimate relationship with forests. They depend heavily on forest ecosystems services, such as potable water and the nutrient cycle; timber for their housing, churches, schools, etc; and non-timber forest products for medicines, cultural activities, and dietary requirements, especially protein. Rural communities also have cash requirements, e.g. school and hospital fees, fuel, food supplies, etc., and thus are interested in generating cash from their forests and forest lands. Active participation of rural communities in REDD+ is possible if they can receive carbon incentives without compromising the basic needs of local users. In order to ensure this, their meaningful participation in all stages of REDD+ standard development process is essential.

Government services to rural communities are mostly poor, hampered by lack of resources and access difficulties. High population growth of 2.3% per annum places pressure on resources. Access to basic education is generally improving, with the net enrolment rate rising from 52.9% in 2007 to 63.6% in 2009. However, retention in the basic education cycle remains a problem. Health indicators have declined in recent years. In 2006, infant mortality was 57 per 1000 live births and maternal mortality was 733 per 100,000 live births (compared with 370 in 1996). Antenatal care coverage is low at only 60% for one visit, and only 39% of births delivered by trained personnel. The challenges of

distance, isolation, lack of transport and a shortage of skilled birth attendants highlight the hazards of childbirth. Law and order also present challenges. REDD+ could be an important source of income. Well-designed governance standards have the potential to build institutional capacity and verify performance, and promote REDD+ market in PNG. They will save costs and improve the efficiency benefits of REDD+ mechanism.

1.4. Outcomes at project completion

The first set of project outcomes are associated with improved information sharing and collaboration between REDD+ stakeholders, through the process of engaging them in a multi-stakeholder forum to identify and agree on verifiers for the quality-of-governance standard. The participants are expected to be:

- Forest Resource Owners
- Key government agencies: PNGFA, the Lands Department, Office of Climate Change and Development, Department of Environment and Conservation, Department of Agriculture and Livestock, etc.
- Technical bodies and training institutions: FRI, NRI, UPNG, UNITECH, etc.
- NGOs, Churches and Civil Society Organisations: PNG Council of Churches, INA, EFF, FORCERT, FPCD, TNC, WWF, Live and Learn, PWM, etc.
- Industry: PNGFIA, PNG Palm Oil Research Association, etc.
- Donors: JICA, UN-REDD, GTZ, EU, AusAID, World Bank, USAID, etc.

The second set of Project outcomes is associated with the use of the quality-of-governance standard, and include:

- REDD+ policies, readiness processes and demonstration activities that are well-designed and enjoy broad stakeholder support;
- Demonstration for other sectors (planning, agriculture, mining, etc.) from the introduction of transparent and inclusive decision-making and management processes in the forest sector;
- Reduced risk of REDD+ market failure through, inter alia, permanence of net emissions reductions and control of leakage; and
- Control and transparency of financial flows associated with REDD+ readiness and implementation in PNG, giving Government a stronger voice in international negotiations.

2. PROJECT RATIONALE AND OBJECTIVES

2.1. Stakeholder analysis

A national stakeholder forum of relevant stakeholders will be convened, with the aim of developing a quality-of-governance standard for forest sector projects, and applicable to REDD+, following accepted standards setting procedures. A key input into the forum will be the draft collection of verifiers (means of evaluation) created over the course of the online survey and face-to-face interviews. As their participation in developing the standard is essential to ensure ownership, all major national REDD+ and forest stakeholders in PNG are considered *primary stakeholders* under the Project.

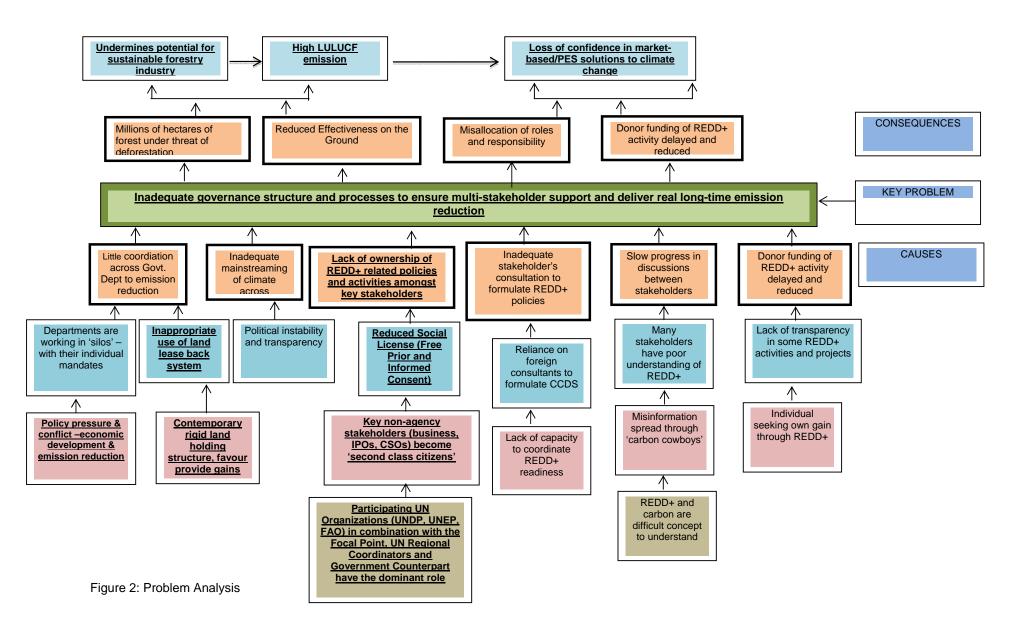
Figure 2: Stakeholder analysis table							
Stakeholder group	Characteristic	Problems, needs, interests	Potentials	Involvement in the project			
Primary Stakeholders	<u> </u>		•				
Forest Resource Owners (FROs)	Own forests; Forest important for their subsistence and culture; Some rights transferred to developers	Lack knowledge on REDD+; Spread of misinformation; Over 800 distinct languages; Isolation of some communities	Live in and around forests Strong interest in participating in REDD+ projects	interviews and participate			
Government agencies	Work according to their legal mandates	Under- resourced; Climate change not mainstreamed; Inadequate policy coordination	Technical expertise; Law prescribe stakeholder engagement processes				
Technical bodies	Conduct research in their specific area of expertise, e.g. inventory, remote sensing, etc.	Capacity on REDD+ RELs and MRV	Relevant technical expertise	As above			
International and national NGOs. Churches, Civil Society Organisations	Specific areas of interest, e.g. environment, human rights, etc.	Weak policy influence	Relevant expertise – working with FROs, ecoforestry, et	As above			
Industry	Invest in forest and land development	Environmental performance and stakeholder engagement	Resources and forestry expertise	d As above			
Secondary stakehold		1	1 =.				
Donors/Bilateral Partners and Co- financer	Own areas of interest; Primary source of REDD+ funding	Inadequate coordination; Lack of direction from Government	Financial resources and technical expertise	Provide information; Observe multi-stakeholder governance forum; provide input into verifiers relevant to ensuring responsible management of donor funds			
SGS (PNG office)	Implementing PNG export log monitoring scheme; Forest management and chain of custody certified	Slow uptake of standards by industry	Expertise on standards development	Provide information; Observe multi-stakeholder governance forum; provide input into ensuring consistent standards			

2.2. Problem analysis

An important question for REDD+ is whether structural and procedural aspects will be given sufficient weight so that as meaningful participation of stakeholders as possible takes place. The success of REDD+ as an international mechanism will further depend on the existence of governance arrangements that are also able to deliver both emission reductions at scale (i.e. solve the problem), as well as being transparent, and inclusive. Decision-making processes will need to include methods that engage representatives of a range of non-state stakeholders, including forest dependent peoples, civil society organizations, and the private sector. Decision-making also needs to be equitable that caters for a range of stakeholders, both relating to communities most at risk from climate change as well as broader concerned communities.

At present REDD+ policies and procedures largely cover Financial reporting and policies and procedures and activities on the basis of the 6 Thematic Work Areas and Outcomes, and pay little attention to the structures and processes associated with the development of the REDD+ governance system in-country. UN Participating Organisations (UNDP, UNEP, FAO etc) in combination with the Focal Point, UN Regional Coordinators and Government Counterpart have the central role, with other stakeholders less directly involved. These institutional structures vary in their effectiveness across countries. A governance standard seeks to provide consistency, applicable across countries, for multi-stakeholder participation in REDD+ development and implementation. Greater involvement of other key stakeholders (business, IPOs, CSOs) beyond seeking input to the Work Areas and Outcomes is essential. Other stakeholders are secondary, rather than primary actors, the recipients of funding, and/or information provision, rather than active participants. This has the potential to reduce ownership, and foster an environment of compliance, in exchange for funding. This may reduce effectiveness on the ground, and has the potential to reduce free, prior and informed consent, and reduce the potential for emissions reduction projects to have long-lasting impacts.

Quality of governance standards will improve the REDD+ governance system in country, by making stakeholder participation in REDD+ meaningful, and deliberations (decision-making) more productive, thereby improving implementation.



2.3. Objectives

2.3.1.Development objective and impact indicators

The development objective is strengthened governance of REDD+ strategy development and implementation in Papua New Guinea to achieve climate change mitigation and national development goals through the sustainable management and enhancement of forest resources.

The impact indicators of the project include:

- Structures and processes for the formulation and implementation of REDD+ and natural resources and land management policy that reflect effective collaboration between government departments, industry and civil society; and
- Implementation of the commonly agreed quality-of-governance standards to strengthen governance.

2.3.2. Specific objective and outcome indicators

The specific objective is to develop a standard for REDD+ quality-of-governance through a multistakeholder process, including an online survey, face-to-face interviews, multi-stakeholder forum workshops, and field testing pilot study areas in PNG.

The outcome indicators of this project are:

- Multi-stakeholder forum for quality-of-governance standard development and promotion
- Quality-of-governance standard developed by all major stakeholder groups

3. DESCRIPTION OF PROJECT INTERVENTIONS

3.1. Outputs

Outputs of the project include:

(1) PNG national REDD+ quality-of-governance standard and accompanying report have been drafted

The proposed PNG national REDD+ quality-of-governance standard is a hierarchical governance framework that elaborates governance attributes using *Principles* (Fundamental rule or value of governance), *Criteria* (Categories or states of governance, non measurable), *Indicators* (qualitative/quantitative parameters, assessed in relation to a criterion), and *Verifiers* (source of information for the indicator) (PCI&V). The principles, criteria and indicators are generic and are based on Cadman (2011), whereas the verifiers will be developed by stakeholders in PNG to elaborate the standard to reflect their expectations and PNG conditions. The value of this approach is that it builds ownership across stakeholder sectors and improves governance capacity amongst stakeholders overall.

Output 1 is both the quality-of-governance standard and the accompanying report that describes the standard development process.

(2) Comprehensive database of REDD+ stakeholders has been created and is available Online

This allows for an active and informed stakeholder base for future REDD+ and sustainable natural resource management projects. For each organisation, the database will provide their contact details, mandates, major activities, interests in REDD+, and their REDD+ partnerships and initiatives, etc.

(3) PNG national group to promote the standard has been established

Once the verifiers are developed and the standard negotiated and field-tested, a national group (steering committee) will be formed to assist in the promotion of the standard, and encourage its uptake in other REDD+ and sustainable natural resource management projects. This will comprise key representatives identified from the stakeholder database created during the project.

(4) 3 peer-reviewed journal papers have been accepted for publication.

These are in regionally relevant (Asia-Pacific) and high-quality international journals

3.2. Activities and inputs

Output 1: PNG national REDD+ quality-of-governance standard and accompanying report have been drafted

Activity 1.1: Review international literature on REDD+ quality-of-governance.

Activity 1.2: Recruit key stakeholders

The project will recruit key stakeholders currently involved in forest management from the environmental, social and economic sectors, and including state (i.e. governmental) and non-state (i.e. non-governmental, and other) interests.

Activity 1.3: Conduct Online pre-tested questionnaire surveys

Pre-tested questionnaire surveys (based on hierarchically consistent indicators) of recruited key stakeholders, which will provide some indications of stakeholders perception on current REDD+ quality-of-governance, and standards for each of the 11 indicators and verifiers, will be conducted.

Activity 1.4: Face-to-face interviews to refine and further collect verifiers

Verifiers will be refined and further collected through face-to-face interviews with different REDD+ stakeholders.

Activity 1.5: Conduct multi-stakeholder forum/workshop

A multi-stakeholder forum/workshop following accepted standards setting procedures (ISO 2005; ISEAL 2003; ISEAL 2006) will deliberate quality-of-governance standards derived from the collected verifiers.

Activity 1.6: Produce first draft of standards

Based on the methodology above, the first draft of the quality-of-governance standards will be produced.

Activity 1.7: Test standards at demonstration sites

Over the course of standards development, test sites will be identified and field trials will commence. Field trials are necessary to determine site-specific means of verification within the pilot study areas meet standard requirements. These include local participation in decision-making regarding associated agreements concerning benefit sharing, implementation of the relevant forest management regime according to forest type and management activity, and compliance with baselines relating to carbon accounting and procedures for monitoring reporting and verification.

Activity 1.8: Revise standard

The quality of governance will be revised to reflect the results of the field tests.

Output 2: Comprehensive database of REDD+ stakeholders has been created and is available Online

Activity 2.1: Design database.

Activity 2.2: Input data collected through online survey and face-to-face interview survey.

Output 3: PNG national group to promote the standard has been established

Activity 3.1: Meeting of key representatives to establish a national group to promote the standard The stakeholder group representatives will be identified from the stakeholder database created under Output1.

Output 4: Peer-reviewed research outputs have been drafted

Activity 4.1: Prepare a report on the development of the verifiers and quality-of-governance standard in PNG.

Activity 4.2: Analyse the process and outcomes of the research

The project will analyse the process and outcomes of the research and determine the feasibility of applying such standards internationally to REDD+ in particular and other market-based sustainable development initiatives such as emissions trading, environmental certification and labelling of natural resources (forestry, fisheries, agriculture, mining), corporate social responsibility, and finance (responsible investment).

Activity 4.3: Prepare 3 peer-reviewed journal papers

3 peer-reviewed papers targeting high-quality journals, with relevance to the Asia-Pacific region, will be prepared.

3.3. Strategic approach and methods

Approach

The research project approaches the governance of sustainable development from the disciplines of international relations and comparative politics, with some reference to public administration. It is grounded in the social constructivist theory that the ideas and institutions within which social identities and interests operate are interactively constituted by means of collective intentionality (Ruggie 1998). State and non-state actors (government, business and society) now interact within systems that have a wider focus than traditional institutions. The usual preoccupation with economic performance, for example, is supplemented by broader concerns about environmental-social governance (ESG –

Hawley and Williams 2005). This is particularly the case in global environmental governance (Haas 2002). Once it is accepted sustainability is founded on engaging 'stakeholders' in the broadest possible sense, it is possible to measure effectiveness in terms of the levels of interaction and collaboration in developing of environmental, social or economic outcomes. This allows for a more ethical, and less functionalist and utilitarian model of governance quality. See Figure 3 below:

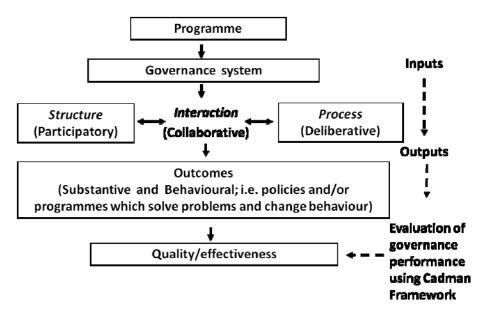


Figure 3: Theoretical model for the evaluation of contemporary global governance (Cadman 2011, adapted).

The approach of this project is to engage directly with practitioners active in the arena. The intention is to provide an atmosphere that allows stakeholders to develop their own solutions to the problems they are tackling, and solve them through their own efforts (Hall, 1979).

Methods

Institutional and sectoral participants in the forest sector will be invited to participate in the negotiation of formal, voluntary quality-of-governance standards suitable for subsequent certification by an independent, third party accreditation body, and the design and evaluation of field trials associated with the creation of standards and their implementation on the ground. The four-stage method outlined in Figure 4 will be used to develop the quality-of-governance standard.

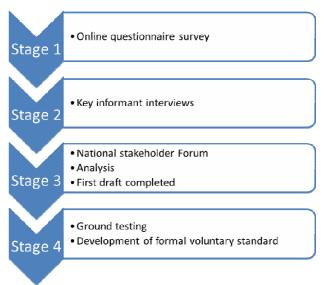


Figure 4: Standard development methodology

The key methodological stages are discussed above in section 3.2 Activities and Inputs.

Between July 2011 and February 2012, Dr. Tek Maraseni and Dr. Tim Cadman ran a collaborative research project with the Institute for Global Environmental Strategy (IGES) and University of Southern Queensland (USQ) to develop a quality-of-governance standard in Nepal using the above method. Stakeholders participated enthusiastically in the project, demonstrating that the methodology is sound.

Engagement and building ownership

As noted, the project will follow multi-stakeholder, multi-level & multi-stage process for the development of voluntary quality-of-governance standards. In the whole process, in addition to several other key stakeholders, PNG Forest Authority will be actively involved and thus allowing the ownership of the developed quality-of-governance standards.

Involvement of stakeholders will be as representative of multi-interests as possible. Initial consultation will be via Internet survey, and where this is not possible face-to-face surveys technique will be adopted. Stakeholders will be asked to identify the specific elements of REDD+ governance they need to ensure effectiveness, and how they would evaluate effectiveness. These initial essential evaluation will be drafted into a preliminary set of governance verifiers, and supplemented by key informant interviews. These verifiers will be returned to stakeholders for further refinement. From this a preliminary draft standard will be developed. This will be presented back to stakeholders at a national forum, for further refinement, and then re-circulated to all stakeholders. This will result in an informal draft, which will be tested on the ground amongst, by, and with stakeholders, leading to further improvements. By this stage the standard will have a high level of ownership amongst implementing actors and agencies. Active participation and engagement of a diverse range of stakeholders promotes transparency in benefit sharing mechanisms, promote sense of ownership and thus increases the chance of long-term implementation.

3.4. Work plan

Outputs / Activities	uts / Activities Responsible Party		Sc			in qu ears		rs
		1	2	3	4	5	6	7 8
Output 1: PNG national REDD+ quality-of-governance standard and								
accompanying report have been drafted								
Activities								
Activity 1.1: Review international literature on REDD+ quality-of-governance	Executive Agency and consultant							
Activity 1.2: Recruit key stakeholders	PNG Forest Authority (FA), Executive							
	Agency & consultant							
Activity 1.3: Conduct Online pre-tested questionnaire surveys	Executive Agency & consultant							
Activity 1.4: Face-to-face interviews to refine and further collect verifiers	Executive Agency & consultant							
Activity 1.5: Conduct multi-stakeholder forum/workshop	PNG FA							
Activity 1.6: Produce first draft of standards	PNG FA							
Activity 1.7: Test standards at demonstration sites	Executive Agency, consultant & PNG FA							
Activity 1.8: Revise standard	Executive Agency							
Output 2: Comprehensive database of REDD+ stakeholders has been								
created and is available Online								
Activity								
Activity 2.1: Design database	Executive Agency							
Activity 2.2: Input data collected through Online survey and face-to-face	Executive Agency							
interview survey								
Output 3: PNG national group to promote the standard has been								
established								
Activity								
Activity 3.1: Meeting of key representatives to establish a national group to	PNG FA, Executive Agency & consultant							
promote the standard								
Output 4: Peer-reviewed research outputs have been drafted								
Activities								
Activity 4.1: Prepare a report on the development of the verifiers and quality-of-	Executive Agency & consultant							
governance standard in PNG								
Activity 4.2: Analyse the process and outcomes of the research	Executive Agency & consultant							
Activity 4.3: Prepare 3 peer-reviewed journal papers	Executive Agency & consultant							

3.5. Budget

3.5.1.Consolidated budget by component

	solidated Yearly Project Budget					
(featu	uring Input and Unit Costs)					
	Budget Components	Input	Unit	TOTAL	YEAR 1	YEAR 2
10	Project Personnel					
	11.1.ACSC Project Team			\$40,600	<u>\$20,300</u>	<u>\$20,300</u>
	12. International consultant (Tim)			\$18,000	\$9,000	\$9,000
	12.2. Research Assistant (ACSC)			\$13,800	<u>\$6,900</u>	<u>\$6,900</u>
	12.3 National Expert from PNG			<u>\$12,000</u>	<u>\$6,000</u>	<u>\$6,000</u>
	19. Component Total			\$94,400	\$47,200	\$47,200
20	Sub-contracts			\$34,400	<u>ψ47,200</u>	ψ+1',200
	Multi-stakeholder			*		
	forum/workshop (run by INA)	1	\$25,000	\$25,000	\$25,000	
	29. Component Total	1	\$25,000	\$25,000	\$25,000	\$0
30	Travel					
	31. Daily Subsistence Allowance	120	\$50	\$6,000	\$3,000	\$3,000
	32. International Travel	7	\$1,500	\$10,500	\$5,250	\$5,250
	33.1 Travel in Port Moresby	15	\$40	\$600	\$300	\$300
	33.2 Domestic air travel for field	4	\$400	\$1,600		\$1,600
	33.3 4WD hire for field testing	20	\$200	\$4,000		\$4,000
	39. Component Total	166	\$2,190	\$22,700	\$8,550	\$14,150
40	Capital Items					
	49. Component Total			\$0	\$0	\$0
50	Consumable Items					
	51. Raw materials			\$0	\$0	\$0
	53. Utilities	5	\$1,000	\$5,000	\$2,500	\$2,500
	54. Office Supplies	30	\$500	\$15,000	\$7,500	\$7,500
	59. Component Total	35	\$1,500	\$20,000	\$10,000	\$10,000
60	Miscellaneous					
	62. Auditing					
	63. Contingencies					
	69. Component Total				ļļ	
70	National Management Costs					
	71. Executing Agency					
	79. Component Total				 	
	SUBTOTAL			\$162,100	\$90,750	\$71,350
80	Project Monitoring and			Ţ. J., 100	755,100	Ţ, 000
	81. ITTO Monitoring and Review			1,600	\$800	\$800
	82. ITTO midterm, final, ex-post			-,,,,,,	7	1
	83. ITTO Programme Support Costs (12% on items 10 to 82)			<u>\$16,044</u>	\$8,022	\$8,022
	89. Component Total					
90	Refund of Pre-Project Costs (Pre-project budget)					
100	GRAND TOTAL			<u>\$179,744</u>	\$94,572	<u>\$75,172</u>

3.5.2.ITTO budget by component

Innua	l Disbursements			
	Budget Components	TOTAL	YEAR 1	YEAR 2
10	Project Personnel			
	11.1.ACSC Project Team	\$40,600	\$20,300	\$20,300
	12. International consultant (Tim)	\$18,000	\$9,000	\$9,000
	12.2. Research Assistant (ACSC)	\$13,800	\$6,900	\$6,900
	12.3 National Expert from PNG	\$12,000	\$6,000	<u>\$6,000</u>
	19. Component Total	<u>\$84,400</u>	\$42,200	<u>\$42,200</u>
20	Sub-contracts			
	Multi-stakeholder forum/workshop (run by INA)	\$25,000	\$25,000	
	29. Component Total	\$25,000	\$25,000	\$0
30	Travel			
	31. Daily Subsistence Allowance	\$6,000	\$3,000	\$3,000
	32. International Travel	\$10,500	\$5,250	\$5,250
	33.1 Travel in Port Moresby	\$600	\$300	\$300
	33.2 Domestic air travel for field testing	\$1,600		\$1,600
	33.3 4WD hire for field testing	\$4,000		\$4,000
	39. Component Total	\$22,700	\$8,550	\$14,150
40	Capital Items	\$0	\$0	\$0
50	Consumable Items	\$0	\$0	\$0
60	Miscellaneous			
	62. Auditing			
	63. Contingencies			
	69. Component Total			
70	National Management Costs			
	71. Executing Agency Management Costs			
	79. Component Total			
	SUBTOTAL	\$132,100	\$75,750	\$56,350
80	Project Monitoring and Administration			
	81. ITTO Monitoring and Review	<u>1,600</u>	<u>\$800</u>	<u>\$800</u>
	82. ITTO midterm, final, ex-post Evaluation			
	83. ITTO Programme Support Costs (12% on items 10 to 82)	\$16,044	\$8,022	\$8,022
90	Refund of Pre-Project Costs (Pre-project			
100	ITTO TOTAL	\$149,744	\$84,342	\$65,172

3.5.3.Executing agency budget by component

Annual Disbursements			
	Total	Year 1	Year 2
Budget Components			
10. Project personnel (Project team 0.1 & Research Assistant 0.07)	<u>\$10,000</u>	<u>\$5,000</u>	\$5,000
20. Sub-contracts			
30. Duty travel			
40. Capital items			
50. Consumable items	\$20,000	\$10,000	\$10,000
60. Miscellaneous			
70. Executing Agency Management Costs			
EXECUTING AGENCY/HOST GOVT. TOTAL	\$30,000	\$15,000	\$15,000

3.5.4. Activity and Component

Overall Project Budget By Activity and Component (in U.S. Dollars)			DUDGET	COMPONI	ENTE		ı	
OUTPUTS / ACTIVITIES + Non-Activity Based Expenses	10. Project Personnel	20. Sub- Contracts	30. Duty Travel	40. Capital Items	50. Consumable Items	80. Monitoring and prog costs	Yr	GRAND TOTAL
Output 1: PNG national REDD+ quality-of-governance standard and accompanying repo	rt have been	drafted	ı					-
Activity 1.1: Review international literature	6500				1200		Y1	7700
Activity 1.2: Recruit key stakeholders	3500				1000		Y1	4500
Activity 1.3: Conduct Online pre-tested questionnaire_surveys	2800				1000		Y1	3800
Activity 1.4: Face-to-face interviews to refine and further collect verifiers	10400		4600		500		Y1	10900
Activity 1.5: Conduct multi-stakeholder forum/workshop	9400	25,000	4600		500		Y1	9900
Activity 1.6: Produce first draft of standards	4900				3500		Y1 & Y2	8400
Activity 1.7: Test standards at demonstration sites	11500		9,500		500		Y1 & Y2	12000
Activity 1.8: Revise standard	3500				3500			
Output 2: Comprehensive database of REDD+ stakeholders has been created and is ava	ilable Online							
Activity 2.1: Design database	2500				2500		Y1	5000
Activity 2.2: Input data collected through online survey and face-to-face interview survey	3200				2500		Y1	5700
Output 3: PNG national group to promote the standard has been established								
Activity 3.1: Meeting of key representatives to establish a national group	5400		4000		500		Y2	5900
Output 4: Peer-reviewed research outputs have been drafted								
Activity 4.1: Prepare a report on the development of the verifiers	6400				4500		Y2	10900
Activity 4.2: Analyse the process and outcomes of the research	4800				2500		Y2	7300
Activity 4.3: Prepare 3 peer-reviewed journal papers	7600				4500		Y2	92000
Subtotal (ITTO)	84400	25,000	22,700		0	17644		149,744
Subtotal (E. Agency)	10,000	0	0		20,000	0		30,000
Subtotal (Others)	94,400	25,000	22,700		20,000	1000		179,744
TOTAL				<u> </u>				179,744
(I) - Contribution of the ITTO								
(E) - Contribution of the Executing Agency / Host Government								
(O) - Contribution from Other Sources								

4. IMPLEMENTATION ARRANGEMENTS

4.1. Executing agency and organisational structures

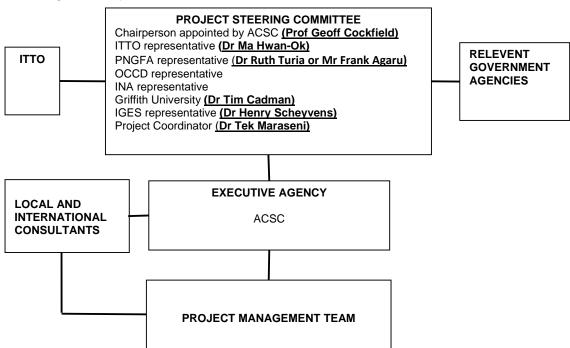
This project will be executed through Australian Centre for Sustainable Catchments (ACSC), which is one of the key research centres of the University of Southern Queensland (USQ). ACSC focuses on underpinning the profitability and sustainability of catchments through the most sustainable and efficient use of natural resources. A strong theme of sustainability is paramount in ACSC and this matches and 'satisfies' the values of the University and the University's key organizational goals in its Strategic Plan, 2009-2013. ACSC is leading the world in many research areas such as climate and meteorological science, water resources, forest governance and carbon accounting and modelling. Since 2010, ACSC's external income has increased rapidly (tenfold).

ACSC is part of an 8 universities consortium that contributes to National Climate Change Adaptation Research Facility (NCCARF). In addition, ACSC is spearheading a proposal for a major international and national cooperative program (CRC) in climate and weather risk management for industry, especially insurance/finance, and has forged close links with major research and operational agencies such as the UKMO (Hadley Centre), the US National Center for Atmospheric Research, (Boulder, Colorado) and the International Research Institute for Climate and Society (IRI, Columbia University), the Australian Bureau of Meteorology, the Fenner School at the Australian National University, the National Australia Bank and Qantas. In addition to these projects, Dr Tek Maraseni is also involved with the Forest Governance project, and Cotton Catchment Communities CRC Limited, undertaking carbon footprint analysis for the cotton and forestry industry, and improvement of crop and sugar delivery for Queensland Sugar Limited. As noted above,

Drs Tim Cadman and Tek Maraseni worked together at USQ. They have very strong knowledge and skills on standard development through multi-stakeholders process, which has been demonstrated in Nepal. Several renowned organizations will be working collaboratively for this project. The research skills of Drs Tek Maraseni, and contractor Dr Tim Cadman, and other collaborators (PNG Forest Authority, Office of Climate Change and Development, Institute of National Affairs, PNG Office of Climate Change and Development, Griffith University and Institute for Global Environmental Strategies, which have very good working relations with local people/organizations) complement each other very well and will ensure that this project produces the highest quality research and policy outcomes at a modest cost.

The diagram below outlines the Small Project's organizational structure. ACSC will provide the Project Coordinator Dr Tek Maraseni, who will report to the Project Steering Committee at 6-monthly meetings. On behalf of ACSC Professor Geoff Cockfield will work as a Chairperson. Similarly, Dr Ruth Turia or Mr Frank Agaru from PNGFA, Dr Tim Cadman from Griffith University and Dr Henry Scheyvens from IGES have enormously contributed to this proposal, and will be (UNU Institute for Ethics Governance and Law) involve in the steering committee. If the project is approved for funding, they will provide mandate from respective organisations. Similarly, we will also include representatives of REDD+ related key PNG organisations (such as OCCD, INA etc) in our steering committee. We will submit their mandates immediately after receiving the confirmation of project.

Figure 5: Project Structure



4.2. Project management

The Project Management Team will be headed by the Project Coordinator, and include the PNGFA ITTO Focal Point, project experts and project consultants. In addition to the experts listed in Annex 2, it will include national and international experts provided by the collaborating organisations, and the expert specified in Annex 3.

PNG Forest Authority (FA) will involve in all process (multi-stakeholder, multi-level & multi-stage) of standards development and will take the ownership of the developed quality-of-governance standards. Particularly, FA will be focussing on engagement with local stakeholders, and liaison with forest managers, carbon accounting experts and other relevant technicians. Organisation of multi-stakeholder forum will be a sole responsibility of FA. In order to help this activity a national expert will be appointed in PNG.

Drs Maraseni and Cadman will be responsible for the overall management and conductance of the project and writing the progress and final reports. One part-time research assistant at ACSC will undertake administrative duties associated with the implementation of each stage of the project and associated meetings and events, as well as database management, documentation of meetings and associated report writing.

4.3. Monitoring and reporting

A monitoring framework consisting of time-bound milestones will be set at the beginning of the project with reference to the Work Plan (Section 3.4) and progress will be reported against these. The Project Coordinator will deliver progress reports to the Steering Committee comprising the ITTO Focal Point and representatives of the main stakeholder groups at least every 6 months over the duration of the project. Project planning and reporting meetings will be held monthly.

The table below presents the proposed project-reporting schedule.

Proposed reporting schedule

Description	Date
Minutes of project management meetings	Monthly
1 st project progress report	End of 1 st 6 month period
2nd project progress report	End of 2 nd 6 month period
3rd project progress report	End of 3 rd 6 month period
Project completion report	End of 24 th month

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ANNEX 1. PROFILES OF THE EXECUTING AGENCY

Australian Centre for Sustainable Catchments

The project will be implemented through the Australian Centre for Sustainable Catchments (ACSC), which is one of the key research centres of the University of Southern Queensland (USQ). The ACSC is an interdisciplinary research organisation specialising in carbon accounting and modelling, forest governance and in the effects of climate change on the environment, agriculture and communities at the catchment level. ACSC has 10 'core' staff with national and international reputations and, additionally, draws expertise from over 40 researchers working under different disciplines at the USQ. Furthermore, the ACSC has 35-40 postgraduate students conducting in-depth scientific research in the areas of climate change, water, sustainable landscape and environmental management, and food security.

Since 2007 Professor Roger Stone (who is currently also the Chair of the United Nations World Meteorological Organization Commission for Agricultural Meteorology) has led ACSC as Director and now heads a team comprising world leading applied researchers in hydrology/flooding (Dr Ian Brodie; Dr Helen Fairweather), remote sensing and spatial modelling (Drs Kevin McDougall and Armando Apan), soil systems (Drs Chuxia Lin and Tim/Tek Maraseni), resource economics (Drs Shahbaz Mushtaq and Tek Maraseni), carbon accounting and modelling (Dr Tek Maraseni), land forest systems (Drs Geoff Cockfield, Tim Cadman and Tek Maraseni), and climate and meteorological science (Drs Roger Stone and Joachim Ribbe). Tek is working as the Deputy Director (Operations) of ACSC and is responsible for: co-ordinating and maintaining strong relationships with ACSC staff, community organizations and industry partners; manage and supervise postgraduate students; and develop grant applications. Therefore, Tek is deeply involved in most of these projects, industry partners and researchers and may draw on their expertises when needed

ACSC has major contract research or consultancy projects involving: Queensland Sugar Limited; leading insurance and reinsurance agencies (eg Lloyd London, Willis Re, Suncorp Ltd); major catchment industries (e.g., cotton industry); leading mining/gas companies; Queensland's largest rural industry agency (QFF); numerous federal research contracts through the 'Managing Climate Variability Program'; Queensland and NSW State Government research programs and industry reviews; local and regional councils contract research (eg climate and weather risk assessment for the Toowoomba Regional Council); contract research in counties such as India on aspects related to farm irrigation, water supply and climate variability; contracted reports to Queensland Water Infrastructure Ltd regarding weather-climate risk assessment and projections; forests vulnerability assessment and flood adaptation research projects with NCCARF; forest governance in Nepal; and relocation of agricultural industry to northern Australia with the Queensland Government Department of Employment, Economic Development and Innovation (DEEDI) and others.

On behalf of ACSC Drs Tek Maraseni, Geoff Cockfield and Shahbaz Mushtaq will oversee the project. They have worked in the areas of forest governance, climate change adaptation and mitigation and emissions accounting and modeling research for over 10 years. They have developed an extensive knowledge on forest governance, and climate change mitigation and adaptation policies and their effects in developing and developed countries. This is reflected in their publications which include: (1) An assessment of REDD+ governance quality; (2) An analysis of socioeconomic impacts of climate change on forested regions in Australia; (3) Greenhouse gas (GHG) and water saving implications of new irrigation technology; (4) An analysis of whether adoption of zero tillage reduces GHG emissions; (5) An assessment of different land use systems including carbon values; (6) An assessment of GHG emissions from vegetable, cotton and rice industries; (7) An analysis of whether or not agriculture should be included in an emissions trading system (8) An analysis of Australia's Carbon Pollution Reduction Scheme; (9) Tradeoffs between energy and water in enhancing food security; (10) Analysis of anthropogenic GHG emissions status of Annex I countries; and (11) reassessment of the profitability of the irrigation industry including water and GHG values.

ANNEX 2. TASKS AND RESPONSIBILITIES OF KEY EXPERTS PROVIDED BY THE EXECUTING AGENCY

On behalf of executing agency Drs Tek Maraseni, Geoff Cockfield and Shahbaz Mushtaq will oversee the project. A research assistant will assist their day-to-day activities.

1) Tek Maraseni

Dr Tek Maraseni is the Deputy Director (Operations) with the Australian Centre for Sustainable Catchments and is working in the areas of climate change adaptation, mitigation, and greenhouse gas emissions accounting/modelling. Tek's role is to: (1) co-ordinate and maintain strong relationships with ACSC staff, community organisations and industry partners; (2) manage and supervise postgraduate students; (3) develop grant applications for climate change adaptations and mitigations research; and (4) conduct research and publish the findings. He is an expert on REDD+ forest reference levels and MRV. He has produced over 70 publications including two books in the last seven years.

His published work has been recognized by national and international fellowships/grants/awards including a prestigious US Climate Change Professional Fellowship 20011, Queensland-China Climate Change Fellowship 2008 award from Queensland Premier, Ms Anna Bligh MP; a globally competitive and highly prestigious award from the US National Science Foundation (NSF) and financial support from the Intergovernmental Panel on Climate Change (IPCC) to attend and present papers at a meeting during 2009. In 2009 he received the Faculty of Business Researcher of the Year Award and 2010 Research Excellence Award (which includes a medallion, a certificate and cash prize of \$5000) from USQ. Very recently, in recognition of his innovative work on forest governance and carbon accounting and modelling: (1) he has been appointed as a Visiting Professor for Chinese Academy of Sciences (CAS), Lanzhou, China; and (2) he has been invited by UN REDD to Expert Working Meeting on Forest Governance Data Collection in Rome.

During this time he has supervised nine PhD students, marked PhD theses and reviewed journal articles in ten international journals. He is also an experienced quantitative data analyst.

Dr Maraseni has an intimate working knowledge of sustainable forest management and community forestry on account of his position as a District Forester in Nepal for 10 years (1993-2003). He has worked closely with several forests stakeholders with the Ministry of Forest and Soil Conservation, Nepal, and has well-established relations with forest users at all levels. His work on community plantations in Nepal was widely acclaimed, thanks to his award-winning "Memorial Forest Plantations" concept.

Dr Maraseni will be focussing on engagement with several levels of forests stakeholders, and liaison with forest managers, carbon accounting experts and other relevant technicians. He will be responsible for the oversight and evaluation of the quantitative data, and the production of technical reports and journal papers.

2) Dr Geoff Cockfield

Dr Cockfield earned his PhD degree in farm forestry policy from the University of Queensland. He is an Associate Professor of Political Economy and currently working as the Deputy Dean for the Faculty of Business and Law at USQ. He has over 20 years work experience in forest governance, farm forestry and public policy. In these fields, he has published 3 books, 18 book chapters and over 40 journal articles. He has supervised 8 research and higher degrees students to the completion. He has successfully completed several research projects including: (1) Forest vulnerability assessment; Socio-economic impacts; (2) Sustainable grazing management; Integrating paddock and catchment planning for sustainable grazing management; (3) An evaluation of natural resources management arrangements in Queensland; (4) Decision Support Systems for Farm Forestry; (5) Conceptual frameworks for analysing effective natural resources management policies and programs; (6) a pilot study of methods to assess the 'vital signs' of rural communities; (7) Frameworks for economic development in a rural shire; (8) Small-scale forests as commercial carbon sinks. He is affiliated with many renowned organizations such as Australian Political Science Association; Australian and New

Zealand Regional Science Association; Public Policy Network. He will be responsible for overall guidance of the project.

3) Shahbaz Mushtaq

Dr. Mushtaq earned his PhD degree in natural resource and environmental economics from the University of the Philippines at Los Baños and International Rice Research Institute, Philippines. He has an outstanding professional and management background acquired through formal education and project management experience in integrated resources management, managing climate variability and climate change, and forest and agricultural governance, and policies development. His role as Principal scientist and Deputy Director (Research) in Australian Centre for Sustainable Catchments, and previous experiences in project management have equipped him with leadership skills necessary to manage and deliver large multidisciplinary projects involving multiple stakeholders, funding agencies and government agencies.

Dr. Mushtaq has over 13 years of research experience natural resource management research in Australia, China, Philippines and Pakistan. Dr. Mushtaq is representing Australia in the UN Commission for Climatology. He is collaborating with the Task Team on Climate Risk Management (TT-CRM) to develop a concept of Climate Risk Management (CRM), strategy for extending the concept of CRM to WMO Members and, practical tools to apply CRM. Dr. Mushtaq has received world recognition across a range of land use management option by developing policy options for water, agriculture and forest management. At the international level this work has lead to multilevel government policy dialogue and changed water practice in the Yellow River Basin, China and the Indus River Basin, in Pakistan.

Dr. Mushtaq is widely published in the area of water, agriculture and forest governance. The comprehensive effort put into this field is demonstrated by the number of scientific publication with over 85 publications including book chapters, journal articles, conference papers and technical reports. In addition, he has supervised/co-supervised 2 MS and 5 Ph.D. students in the field of natural resources management. He will be helping on writing standards and publishing papers.

4) Research Assistant

One research assist will undertake administrative duties associated with the implementation of each stage of the project and associated meetings and events, as well as database management, documentation of meetings and associated report writing.

ANNEX 3. TERMS OF REFERENCE OF PERSONNEL AND CONSULTANTS AND SUB-CONTRACTS FUNDED BY ITTO

Dr Tim Cadman will be involved as a contractor. He was Sustainable Business Fellow at the University of Southern Queensland 2009-2012, and is currently Post-doctoral Research Fellow in the Key Centre for Ethics, Law, Justice and Governance at Griffith University. He was chief investigator with Dr Tek Maraseni in the IGES-USQ Quality-of-Governance project in Nepal. He is well versed in standards development on account of his work as a practitioner and researcher in sustainable forest management and environmental labelling, having assisted in the development and implementation of national standards for Australian forest management under the Forest Stewardship Council (FSC) programme as Country Contact Person, as well as being a member of the Australian Forestry Standard (AFS) Technical Reference Committee. He has considerable insight into contemporary forest governance practice and as an academic he focuses on institutional development and governance theory.

In his previous work as an NGO representative and environmental consultant he has also worked with multi-stakeholders in a range of civil society, private business and governmental contexts. He is experienced in stakeholder interview techniques and qualitative data analysis, and has a wide range of established contacts in the international and national fields of forest governance and climate change, including REDD+.

Dr Cadman has a growing publications record in the field of governance theory and practice, and has worked for a range of organisations in different institutional contexts to evaluate their quality-of-governance and negotiate standards amongst participants. In addition to his work in Nepal he is currently engaged by the Anglican Diocese of Brisbane to work with clergy in relation to the formulation of protocols for church governance.

Dr Cadman will be focussing on engagement of all levels of stakeholders, and liaison with standards bodies, certification programmes and drafting experts. He will also be responsible for evaluating the project methodology and non-technical report writing.

Purpose:

Provide expertise on forest sector quality-of-governance theories and methods, guidance on implementation of the method described in this proposal, and assist with implementing specific components of the project

Duties:

- 1) Oversee the implementation of the online survey to ensure it is consistent with previous projects and research methodologies;
- 2) Manage communications with English-language stakeholders, most notably any expert parties, such as standards setting bodies, who may be called in to provide technical advice;
- 3) Ensure participation, deliberation and consultation methodologies associated with any negotiations are consistent with previous projects and research methodologies;
- 4) Assist in the drafting of any verifiers arising from stakeholder interactions;
- 5) Conduct interviews, and provide facilitation, where appropriate;
- 6) Advise on the participatory and deliberative components of any field testing; and
- 7) Assist in the production of any reports.

Qualifications and Experience:

- PhD or equivalent in relevant field
- At least 10 years international experience in governance and forestry research
- Strong publication record relevant to governance

ANNEX 4. RECOMMENDATIONS OF ITTO EXPERT PANEL

DETAILED RESPONSE TO THE PANEL'S RECOMMENDATIONS

We thank the Expert Panel for their time and effort on the comments, which were a pleasure to deal with – and were extremely helpful for scoping and elaborating the concepts in our proposal.

Please find below the "detailed response to the Panel's Recommendations".

	A. Overall Assessment							
No	Recommendations	Response						
1	The Panel acknowledged the high level of relevance and importance of the project in the context of promoting good forest governance for REDD+ which is being among the current priories of ITTO as well as in connection with REDD+ related international recommendations. The Panel also observed that the proposal had been well written by focusing on the development of REDD+ Quality-of-Governance Standards in PNG.	We highly appreciate Panel's acknowledgement and extremely encouraged with their observation.						
2	The Panel noted that the sections on development and specific objectives were clearly presented but the problem analysis needed to be further refined by focusing the key problem to be addressed by the project.	Thank you very much for your appreciation on our development and specific objectives. The problem tree is thoroughly revised. Key problems are discussed with three more paragraphs in Section 2.2. Some more causes and sub-causes, which are more directly related to the key problem, are included in the problem tree and discussed in the text.						
3	Given the fact that the project will be implemented by a University in Australia	We appreciate this observation. We discussed this issue at length before submitting the proposal. We guarantee the effective involvement of PNG Forest Authority (FA) for five main reasons: (1) this project is						

as a research programme, the Panel was concerned about the effective involvement of PNG Forest Authority as a key stakeholder and that underlined the need for this concern to be fully addressed.

approved and submitted by the PNG Forest Authority, the Office of Climate Change and Development, Institute of National Affairs. They are also involved in Steering Committee and Management Committee. Since the very beginning of the project, we will develop a robust plan to engage key PNG stakeholders in whole process and work collaboratively. (2) in all process (multi-stakeholder, multi-level & multi-stage) of standards development FA will be actively involved and will take the ownership of the developed quality-of-governance standards (see Work Plan, Responsible Party); (3) we have allocated US\$12,000 for a [PNG] national expert that will work for the project; (4) FA will recruit stakeholders and conduct multi-stakeholder forum, for which we have allocated US\$25,000; and (5) we expect Dr Ruth C H Turia (Director, Forest Policy and Planning Directorate, PNG Forest Authority) and Mr Frank Agaru (The Aid Coordinator of the Forest Policy and Planning Directorate of the PNGFA), with the enormous expertise on forest governance, and the Office of Climate Change and Development, Institute of National Affairs, be involved in this project who also provide contributions towards the development of the project proposal. Some more explanation is given in No 5, under Specific Recommendations Section.

On the other hand, there are several reasons why we determined the Australian team should lead the project: (1) the Australian research team has led the Nepalese pilot project. The proposed study builds on this existing work; (2) the Australian team has an existing profile and is actively communicating with the REDD+ policy community (UNFCCC, FCPF, UN-REDD, NGOS, FAO, ESG and IPOs, etc.); (3) the project as it stands already has ethics approval in its current format. This provides an important assurance of quality; (4) the Australian Government is of the view that the inclusion of REDD+ in a post 2012 global climate change outcome could reduce global mitigation costs by 20-25%. Australia has been funding REDD+ and forest related activities through International Forest Carbon Initiative. If the Australian research team leads the project there is a likelihood that the Australian government may use its findings in the verification of its own REDD+-related funding; and (5) being research with a strong focus on governance, involving an independent, third party research team (such as the proponents) provides 'arm's length' credibility, and may encourage possible future accreditation or certification of these projects as being 'well-managed', and suitable for external investment.

With regard to the ITTO budget, the Panel observed that the provision of the project personnel was relatively high and suggested that more contributions on this item be covered by the

ITTO Budget is thoroughly revised. Now the Executive Agency will contribute \$10,000 towards project personnel cost, and another \$20,000 for consumable items.

	Executing Agency.	
		B. Specific Recommendations
No	Recommendations	Response
1	Correct the abbreviation of ITTA with International Tropical Timber Agreement;	We apologise for this typing error. The abbreviation is corrected now.
2	Describe how the project conforms and contribute to PNG's relevant policies under Section 1.2.2 (Relevance to the submitting country's policies). The outcome of the project such as the development of REDD+ Quality-of-Governance standards should be implemented in the country, and there should be a strategy for reaching out to the national level and to other ITTO members;	Relevance of the project to the submitting country's policies is thoroughly discussed in the Section 1.2.2. Why and how the outcome of the project will be implemented in the country and the strategies for reaching out to the national level and to other ITTO members are discussed in the end of the Section. Also, this is discussed under Overall Assessment (No 3)
3	Provide more baseline information and data for social, cultural, economic and environmental aspects of the proposal (Section 1.3.2);	In Section 1.3.2, more information and data for social, cultural, economic and environmental aspects of the proposal are provided.
4	Improve the problem analysis (Section 2.2) by refining the key problem to be addressed by the project aiming at developing REDD+ Quality-of-Governance Standards. Refine the primary causes and subcauses which are more directly related to the key	The problem tree is thoroughly revised. Some more causes and sub-causes, which are more directly related to the key problem, are included. In the Problem Analysis section (2.2), three more paragraphs are added

	problem. In addition to an improved problem tree, the problem analysis section should describe the key problem identified and its causes and effects;	and key problems and their causes and effects are extensively discussed.
5	Improve Section 3.3 (Strategic approach and methods) by further describing the implementation strategies on how key stakeholders in PNG in particular PNG Forest Authority will be consulted and on how to build ownership in the development of REDD+ Quality-of-Governance Standards to strengthen the sustainability of the project after its completion;	discusses how key stakeholders in PNG will be consulted and ownership would be build and sustainability of
6	Improve the work plan (Section 3.4) by specifying responsible parties for the implementation of each Activity	Responsible parties for the implementation of each Activity are specified in the Table 3.4 Work Plan.
	Revise the project budget in the following way:	
	Scale down the project personnel to be funded by ITTO while increasing the EA's contributions;	 The project personnel to be funded by ITTO have been scaled down and the EA's contribution has been increased. Now the Executive Agency will contribute \$10,000 towards project personnel cost and another \$20,000 for consumable items (see Section 3.5).
7	Consider including the engagement of a national expert as a key local resource person;	2. A national expert as a key local resource person has been included and \$12,000 is allocated for the expert (see Section 3.5.1 and 3.5.2)
	 Specify sub-budget components of table 3.5.2 (ITTO budget by component); 	3. Sub-budget components of Table 3.5.2 are specified
		4. Auditing cost is not included. Executive Agency (USQ) has robust systems and procedures in place which

	Include independent auditing costs of the project accounts if they are not borne by the Executing Agency;	promote transparency and accountability and ensure smooth administrative and financial management of funded projects. Project finances are managed through the USQ Financial Office, and USQ's financial policies and procedures are implemented under the Financial Accounting Act 2009. USQ's financial systems are audited each year under State Government procedures by independent accountants. As such purchases associated with this grant can be tracked within a specific project and approval authorised on the basis that the expenditure relates to the project within the grant guidelines.
	5. Include the amount of US\$3,000	5. ITTO Monitoring and Review Costs (US\$3,000) has been included
	as ITTO Monitoring and Review Costs;	6. ITTO Programme Support Costs is recalculated with the new standard of 12% of the total ITTO project
	6. Recalculate the ITTO Programme Support Costs (Sub-component 83) specified in the budget so as to conform with the new standard of 12% of the total ITTO project costs in accordance with the decision of the 48th Session of the ITTC;	costs. Now it is increased to \$16,332.
8	Specify the mandate of the Project Steering Committee under Section 4.1 (Executing Agency and organizational structures). Project team members' consultation mechanisms should also be specified under Section 4.2 (Project management) to ensure the effective involvement of PNG Forest Authority;	We have specified the names of the persons from different organisations involving in the Steering Committee (see Figure 5). Regarding the mandates, we have added one more paragraph in Section 4.1. The role of PNG Forest Authority (FA) and its effective involvement is discussed in the end of Section 4.2. In summary, FA will involve in all process (multi-stakeholder, multi-level & multi-stage) of standards development and will take the ownership of the developed quality-of-governance standards. FA will also involve in Steering Committee and Management Committee. Issue of FA's active involvement is also discussed in Part A Overall Assessment No 3.
9	Include an annex that shows the recommendations of the 45th Expert	This annex Table is developed that shows the recommendations of the 45th Expert Panel and the respective modifications.

Panel and the respective modifications	
	Modifications in the text are highlighted (bold and underlined)
also be highlighted (bold and	
underline) in the text.	