



INTERNATIONAL TROPICAL TIMBER ORGANIZATION

Title : Completion report of the ITTO Project PD 449-07-REV 2

1 AUGUST 2010 TO 30 AUGUST 2012

PROJECT TITLE:	ENHANCING FOREST LAW ENFORCEMENT IN PAPUA NEW GUINEA
HOST GOVERNMENT:	GOVERNMENT OF PAPUA NEW GUINEA
EXECUTING AGENCY:	PAPUA NEW GUINEA FOREST AUTHORITY

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REPORT TITLE: PROJECT COMPLETION REPORT

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LIST of ABBREVIATIONS and ACRONYMS

Abbreviation	Description
CBSF	Cloudy Bay Sustainable Forestry
CoC	Chain of custody
EFI	European Forestry Institute
ENGO	Environmental Non-Governmental Organisation
EU	European Union
FCA	Forest Clearance Authority
FLEGT	Forest Law Enforcement, Governance and Trade
FORCERT	Forest Management and Product Certification Service
FSC	Forest Stewardship Council
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
ILG	Incorporated Land Group
ITTO	International Tropical Timber Organization
NFM	Natural Forest Management
NFS	National Forest Service
PDA	Personal Digital Assistant
PIP	Pacific Island Projects
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forest Authority
SBLC	Stettin Bay Lumber Company Ltd
SFM	Sustainable Forest Management
SGS	Société Générale de Surveillance
TLTV	Timber Legality and Traceability Verification
UAT	User Acceptance Testing

Executive Summary

The Project has given Papua New Guinea (PNG) the opportunity to further enhance its forest law enforcement. This, in part was due to the Project's Development Objective which was "to increase the contribution of the forest sector to PNG's national economy through enhanced market access and higher foreign exchange remittances, as well as further improve the sector's sustainable forest management practices by enhancing forest law enforcement and governance". In line with this, the Project's Specific Objective was "to improve the detection and prevention of illegal logging and export of wood products from PNG". In January, 2009 the Papua New Guinea Forest Authority (PNGFA) engaged SGS PNG Ltd and its consortium to implement the project. The consortium included Helveta and Pacific Island Project (PIP). Soon after this engagement, Helveta commenced work on the development of a pilot Forest Operation Management Information System, supporting timber tracking applications; a FLEGT based legality standard and industry code-of-conduct, together with a forestry monitoring module for stakeholders.

By February 2011 the baseline surveys and initial consultations had enabled the consultants to precisely define the technical and functional requirements of the timber tracking system, and also to outline a cost-effective stakeholder consultation process for delivering an acceptable timber legality standard, industry code-of-conduct and forestry monitoring module. A software system was developed and field visits were carried out to test the prototype software with the two partner companies; namely Cloud Bay Sustainable Forestry Ltd (CBSF), and Stettin Bay Lumber Company Ltd (SBLC).

The project has provided the PNG Forest Authority (PNGFA) with a sound basis for implementing a Legality Assurance System that responds to timber procurement policies and stakeholder objectives. Unfortunately, the Forest Operation Management Information System for purposes of tracking could not be maintained and made available to the PNGFA due to some disagreement over slow payment of consultancy fees. However, the final versions of the *Timber Legality Standard*; *Guidelines for Preparing an Organisational Code-of-Conduct*; *Awareness Brochures*; *Local Monitoring Form* and *National Monitoring Form* were developed and approved in principle by the National Forest Board in 2013, which will paved the way for an "implementation phase" that would include a cost effective awareness program for the PNG local stakeholders.

1. Project Identification

1.1 Context

The forestry sector in PNG is the third largest revenue earner for the government, behind Mining and Agriculture. It is in the country's and sector's interest that it maintains that standing given also that the forest resources are a source of other subsistence use of the citizens of the country.

Prior to project implementation it was already evident that the market will play a major role in influencing timber trade and a few bigger companies were already seeing this coming and aligning themselves to certain voluntary certification systems. However for the smaller companies given their weak financial abilities, it was business as usual.

The PNG Forest Industries Association (PNGFIA) was initially to be part of the project, however did not agree to implement the project with the argument that PNG should not apply the FLEGT principles because the EU is not the main market for PNG logs. Furthermore, with such a system, it will also imply added costs to the industry. This caused some delay from the start and them not meeting their cost component to the project. The cost component was all taken up by the Government through the PNGFA.

The PNGFA as the Executing Agency (EA) entered into a contract with the SGS consortium to implement the project where the contract allowed for all project funds from ITTO to be transferred in full to the consortium. The EA had only the coordination task to itself. This working arrangement did not enable the EA to submit the audited financial reports on time that led to the late project funding resulting in the ICT provider (Helveta) working under the consortium to switch off the network it was hosting to build the timber tracking verification system for PNG prematurely.

1.2 Origin and problem

Environmental NGOs both nationally and internationally were claiming that PNG was involved in the trade of illegal timber. Due to this claim a Regional Seminar for the Pacific region on Forest Law Enforcement and Governance was held in Port Moresby in 2006; the result of which culminated with a project proposal to the ITTO, hence the Project.

The project's scope covers the entire area of PNG, with an emphasis on forested areas. All provinces and districts in PNG are potentially affected by the project's objectives.

The PNGFA recognizes that it has limited capacity; both in terms of manpower and financial resources to effectively monitor the forestry sector in the country. This is because much of the logging projects are located in remote locations throughout PNG where there is limited access. This may have resulted in some weak law enforcement in the PNG's forest sector. All these

undermine the efforts of the PNGFA to effectively achieve the objectives of SFM to meet the requirements of its key markets.

As far as the PNG Government is concerned, all timber leaving the shores of PNG are from legal source. The process of assessing and monitoring the harvesting and export of timber is paper based. With the advancement in information and communication technology, PNGFA saw the opportunity to put in place a computer based monitoring system that would assist it in tracking and monitoring its timber harvest and export.

At the conclusion of the project, it was expected that the following would be achieved:

- a cost-effective forestry operations monitoring regime, and products tracking including a chain of custody verification system appropriate to the needs of the forestry sector in PNG, will have been developed, field-tested and implemented in collaboration with the key stakeholders; the PNGFA, the industry, landowners, civil society etc;
- a database on forest law enforcement will have been established to assist in better monitoring and reporting on the flow of timber products, to address illegal activities;
- legality standards including industry code of conduct for legal forestry activities, based on FLEGT principles and guidelines developed and implemented; and
- local institutional capacity for forest law enforcement to support the achievement of SFM will have been significantly enhanced through training and improved logistical support.



Log tracking piloted and field training on the use of the PDA instrument

2. Project Objectives and implementation strategy

The Project's Development Objective was "to increase the contribution of the forest sector to PNG's national economy through enhanced market access and higher foreign exchange remittances, as well as further improve the sector's sustainable forest management practices by enhancing forest law enforcement and governance". The Project's Specific Objective was "to improve the detection and prevention of illegal logging and export of wood products from PNG".

In order to achieve the above **Objectives**, the Project adopted the following Strategies:

1. Review all existing enforcement mechanisms for forest laws and policies which included consultation with key stakeholders (Government, PNGFA, the industry, civil society, landowners and forest-dependent communities);
2. Develop and field test a cost-effective product tracking and chain of custody verification system, incorporating the monitoring of field operations;
3. Design a database to capture information on product flows to complement the chain of custody verification system;
4. Develop a standard or definition for legality based on the FLEGT guidelines and principles to be complemented by an industry code of conduct;
5. Build capacity for the key stakeholders to monitor and report illegal forestry activities; and
6. Provide training to other agencies of government such as the Police, Justice Department as well as the PNGFA staff and other stakeholders involved in forest law enforcement on the principles and guidelines of FLEGT.

The Project had four (4) Outputs and these are tabulated in Table 1 below, highlighting also the perceived Assumptions and Risks in attaining those Outputs.

Table 1: *Project Objectives, Output, Assumptions and Risks*

PROJECT ELEMENTS	ASSUMPTIONS	RISKS
<p>DEVELOPMENT OBJECTIVE</p> <p>To increase the contribution of the forestry sector to PNG's national economy through enhanced market access and higher foreign exchange remittances, as well as to further improve the sectors sustainable forest management practices by enhancing forest law enforcement and governance.</p>	<p>The project is successfully executed with the total support and commitment of all stakeholders.</p> <p>Systems to be implemented through the project including PNG's forest laws, policies</p>	<p>Some or all stakeholders not willing to participate in the project.</p>

PROJECT ELEMENTS	ASSUMPTIONS	RISKS
<p>SPECIFIC OBJECTIVE</p> <p>To improve the detection and prevention of illegal logging and export of wood products from PNG</p>	<p>and regulations are continually reviewed and monitored to ensure they are achieving their intended objectives.</p> <p>Key stakeholders agree to co-operate and participate in the execution of the project, and implementation of the new regime.</p>	<p>Key stakeholders refusing to co-operate and participate in the activities of the project.</p>
<p>OUTPUT 1.</p> <p>A cost effective log tracking and chain of custody verification system appropriate to the needs and requirements of PNG developed and field tested for implementation in collaboration with key stakeholders.</p>	<p>No relevant Assumption.</p> <p>* The forestry industry and other stakeholders recognize the value of the log tracking and Chain of Custody verification systems.</p>	<p>Forestry industries not willing to adopt the system due to cost</p>
<p>OUTPUT 2.</p> <p>A database to capture timber products flow information developed and field tested for implementation.</p>	<p>The existing SGS data base will be expanded and adapted to achieve this output</p>	<p>SGS not willing to allow its database to be expanded and adapted</p>
<p>OUTPUT 3.</p> <p>A legality standard based on ITTO FLEG guidelines and principles and industry code of conduct developed for implementation in PNG in collaboration with key stakeholders.</p>	<p>No relevant Assumptions</p> <p>* Forest industry supports the introduction of the standards and code of conduct.</p>	<p>Forestry industries receptive to the introduction of the standards and code of conduct</p>
<p>OUTPUT 4.</p> <p>A training module for enhancing the skills and expertise of key stakeholders particularly the PNGFA and forestry industry participants in the monitoring of forestry activities to deter and detect illegal practices developed and implemented.</p>	<p>No relevant Assumptions</p> <p>* There is sufficient interest among the key stakeholders to support and participate in the monitoring of forestry activities to deter and detect illegal practices.</p>	<p>Forestry industry and other stakeholders not interested to attend the training on monitoring of forestry operations to deter and detect illegal practices.</p>

* New Assumptions.

3. Project Performance (Project elements planned and implemented.)

In July 2010, the PNGFA in conjunction with SGS PNG Ltd commenced work on the development of a pilot Forest Operation Management Information System supporting timber tracking applications; a FLEGT based legality standard and industry code-of-conduct, together with a forestry monitoring module for stakeholders. The following project implementation phases were established:

- PHASE1: Mobilization, Survey and Initial Consultations
- PHASE 2: System Configuration; Legality Standard and Industry Code of Conduct Development; Forestry Monitoring Module Development
- PHASE 3: System Roll-Out and Training of Key Stakeholders
- PHASE 4: Piloting and Sustainability
- PHASE 5: Final Consultation and Reporting

The project had a delayed initiation due to the unfortunate passing away of the anticipated project manager. This required a new project manager to be recruited and relocated to Papua New Guinea.

By 28 February 2011, the baseline surveys and initial consultations had enabled the consultants to precisely define the technical and functional requirements of the timber tracking system, and also to outline a cost-effective stakeholder consultation process for delivering an acceptable timber legality standard, industry code-of-conduct and forestry monitoring module.

The following methods were used by the consultants to collect the required baseline data:

- A series of meetings were held with both managers and technical officers at the PNGFA headquarters in Port Moresby, including with the selected project partners; Cloudy Bay in Central Province and Stettin bay lumber company (SBLC) in West New Britain Province.
- Inspections of existing systems and processes were carried out at the PNGFA headquarters in Port Moresby as well as at Cloudy bay and Stettin bay lumber company project sites.
- A comprehensive review of the available literature was undertaken with regards to the tools, techniques and processes currently being used to monitor and prevent potential illegal logging activities and engage key stakeholders at both domestic and international levels.

The baseline survey resulted in the preparation of three specific documents for review and signing-off by the PNGFA before the project proceeded to the second phase of activities.

These documents detailed out the technical specifications and functional requirements of the timber tracking system as well as the platform configuration requirements for meeting PNGFA and stakeholder specifications and industry practices and the specifications of the network infrastructure, hardware, features and scope of the timber tracking system. The stakeholder consultation methodology outlined the objectives, principles, list of participants and work-plan. A stakeholder database and online workspace was also prepared in preparation for the consultation work which started in March 2011.

During the project's second six months period the software system to be used for the system under development was prepared to a beta stage. Field visits were carried out to test the prototype software with the two partner companies; Cloudy Bay Sustainable Forestry Ltd, and Stettin Bay Lumber Company Ltd.

The field trials of the software assisted greatly and several enhancements were identified. Subsequent to the field trials, the software was further developed to a pre-release version.

User Acceptance Testing (UAT) was carried out on the pre-release version of the software. This was done by SGS, PNGFA, CBSF, and SBLC staff. The UAT was carried out on PDA units purchased as part of the project funding, and also on web versions of the software.

Feedback from the UAT was sent to Helveta Ltd to assist in the refinement of the pre-release software. A final version of the software was developed, and manuals were prepared for release during the training period which commenced in September 2011.

A number of implementation problems were resolved through field visits, with users gaining more experience in the use of the system. PNGFA officers were trained in the use of the new system for royalty assessment approval.

The users identified a number of issues which would require resolution in a full implementation of the system. The PDAs used in the pilot have shown some problems in field use, with users on occasion managing to delete the software. A full implementation would require the software to be better protected from accidental deletion.

Table 2: Planned versus realised performance under Output 1

Planned Performance		Realised Performance
Output 1	A cost effective log and timber tracking and chain of custody verification system appropriate to the needs and requirements of PNG operations developed and field tested for implementation in collaboration with key stakeholders.	A pilot log and timber tracking and chain of custody verification system was designed and built to meet the needs of the PNGFA. Field testing was carried out to trial the system and test implementation of the system.
Activity 1.1:	Engagement of relevant consultants	UK Consulting firm Helveta Ltd was engaged at the commencement of the project during the inception period. Staff member Derek Charter was appointed as consultant and company contact liaison.
Activity 1.2:	Review timber product tracking systems and technologies available on the market.	A thorough review of timber tracking systems was carried out in combination with the development of a set of functional specifications.
Activity 1.3:	Development of timber products tracking and chain of custody verification system.	A set of functional specifications was prepared to design the system. After review by involved stakeholders a pilot system was developed by Helveta Ltd as described in <i>Technical Report Two - Technical specifications for software system</i> . The system was hosted by Helveta outside of the PNGFA system.
Activity 1.4:	Field testing of system	Extensive field testing of the system was carried out at two partner sites as described in <i>Technical report Four - Pilot testing of PNG log tracking software system</i> .
Activity 1.5:	Implementation of system and training	Not undertaken as Helveta blocked the system from being used due to disagreement.

Table 3: Planned versus realised performance under Output 2

Planned Performance		Realised Performance
Output 2	A database to capture and store log and timber products flow information developed and tested for implementation.	An integrated system was prepared under Output 1 which included a database to store timber product information. The database was developed and tested as a component of the system developed under Output 1
Activity 2.1:	Appointment of ICT specialist/consultant	UK firm Helveta Ltd consultant Derek Charter was appointed / engaged as technical specialist during the inception phase.
Activity 2.2:	Development of specifications for the database	A set of functional specifications was prepared to design the system. After a review of existing processes and data output with stakeholders, a pilot system was developed by Helveta Ltd as described in <i>Technical Report Two - Technical specifications for software system</i>
Activity 2.3:	Consultations with stakeholders on the design of the database	Consultation was carried out with the PNGFA, Cloudy Bay Sustainable Development Limited, Stettin Bay Lumber Company, and other industry representations as detailed in <i>Technical Report Two - Technical specifications for software system</i>
Activity 2.4:	Development of the database	Database developed and hosted by Helveta
Activity 2.5:	Testing of the database	Some testing were undertaken and it showed promise
Activity 2.6:	Commissioning of the database and training of staff	Unfortunately the database was not put to use as Helveta blocked the database due to disagreement

Table 4: Planned versus realised performance under Output 3

Planned Performance		Realised Performance
Output 3:	A legality standard based on FLEGT/ITTO Best Practices guidelines and principles, and industry code of conduct developed for implementation in PNG in collaboration with key stakeholders by September 2010	<p>This output will be fully realised when the final versions have been approved by the National Forest Board towards the end of 2013. In the meantime, the following versions have been approved by the Technical Committee and are ready for wider circulation amongst the project's stakeholders:</p> <ul style="list-style-type: none"> • <i>Timber Legality Standard (Version 2)</i> • <i>Guidelines for Preparing an Organisational Code of Conduct (Version 2)</i> <p>The following additional materials also demonstrate that the stakeholder consultation process has been effective:</p> <ul style="list-style-type: none"> • <i>Code of Conduct for Stettin Bay Lumber Company (SBLC)</i> has been prepared by SBLC. • <i>Recommendations: Actions to be taken after the project</i> have been prepared by the Technical Committee of stakeholder representatives.
Activity 3.1:	Stakeholder consultations and workshops on the development of a legality standard and industry code of conduct	<p>From May to September 2011, the <u>overall scope</u> of the Timber Legality Standard and Organisational Code of Conduct was defined through:</p> <ul style="list-style-type: none"> • Face-to-face meetings with over 50 registered organisations / sub-organisations in Port Moresby and the project's pilot areas with reference to a scoping questionnaire. • Phone / fax / email consultations with stakeholders in other locations. <p>From October to November 2011, an <u>acceptable framework</u> for the Timber Legality Standard and Organisational Code of Conduct was prepared through:</p> <ul style="list-style-type: none"> • Preparation and distribution of draft framework documents to registered stakeholders for comments • Promotion of national workshop and draft framework documents through article in national newspapers, together with links for downloading materials from project webpage. • Facilitation of 2-day national workshop with over 60 registered participants in Port Moresby to complete the framework documents and identify remaining work to be done both during and after the project.
Activity 3.2:	Preparation of report and recommendations on stakeholder consultations and workshops	<p>The stakeholder consultation process has been documented as follows:</p> <ul style="list-style-type: none"> • <i>Initial Consultation Findings Report</i> details the initial scoping findings. • <i>Project Technical Report 3</i> summarises the overall research findings leading to the development of an acceptable framework for PNG's Timber Legality Standard, Industry Code-of-Conduct (and Stakeholder Monitoring Module). <p>The following documents were finalised after the national workshop:</p> <ul style="list-style-type: none"> • <i>Framework for PNG's Timber Legality Standard</i> • <i>Framework for PNG's Organisational Code of Conduct</i>
Activity 3.3:	Review of report and recommendations with the government and stakeholders	<p>The document listed above (activity 3.2) were widely circulated amongst the project's registered and other stakeholders via the project e-bulletin (mailing list has almost 300 subscribers) and webpage.</p>
Activity 3.4:	Preparation of legality standard and industry code of conduct	<p>From December 2011 to September 2012, the Technical Committee of stakeholder representatives (nominated during national workshop) assisted with the preparation of the</p>

		<p>following documents:</p> <ul style="list-style-type: none"> • <i>Timber Legality Standard (Version 1)</i> • <i>Guidelines for Preparing an Organisational Code of Conduct (Version 1)</i> • <i>Committee Recommendations: Actions to be taken after the project</i>
Activity 3.5:	Circulation of standard and industry code of conduct for comment and input	The documents listed above (activity 3.4) were widely circulated amongst the project's registered and other stakeholders via the project e-bulletin (mailing list has almost 300 subscribers) and webpage.
Activity 3.6:	Field testing of standard and code of conduct	<p>From 14 to 17 May 2013, the documents listed above (activity 3.4) were pilot-tested with the project's industry partner - Stettin Bay Lumber Company (SBLC). Unfortunately, Christmas / New Year celebrations and funding delays meant that this activity was postponed for around 5 months</p> <p>This field work comprised both training and field work with the following stakeholders:</p> <ul style="list-style-type: none"> • SBLC management and staff (office and field) • PNG Forest Authority staff (headquarters and local) • Technical Committee representatives (from each stakeholder group)
Activity 3.7:	Implementation of standard and code of conduct and training.	<p>On 6 June 2013, the National Forest Board was given a presentation on project progress to-date. Following the presentation, board members proposed the final versions be submitted for board approval before the end of the year.</p> <p>On 26 July, the Technical Committee approved the following materials for wider circulation amongst the project's stakeholders (including hard copies to the heads of key government departments):</p> <ul style="list-style-type: none"> • <i>Timber Legality Standard (Version 2)</i> • <i>Guidelines for Preparing an Organisational Code of Conduct (Version 2)</i> <p>Once the final versions have been approved by the National Forest Board (i.e. after project closure), the "implementation phase" should commence with the selection of the most cost effective strategy for implementing PNG's Legality Assurance System.</p>

Table 5: Planned versus realised performance under Output 4

Planned Performance		Realised Performance
Output 4:	A training module for enhancing the skills and expertise of key stakeholders particularly the PNGFA and forestry industry participants in the monitoring of forestry activities to deter and detect illegal practices developed and implemented.	<p>This output will be fully realised when the final versions have been approved by the National Forest Board towards the end of 2013. In the meantime, the following versions have been approved by the Technical Committee and are ready for wider circulation amongst the project's stakeholders:</p> <ul style="list-style-type: none"> • <i>Awareness Brochures (Version 2)</i> that introduce PNG's (i) Timber Legality Standard; (ii) Guidelines for Preparing an Organisational Code of Conduct; (iii) National Monitoring Form, and (iv) Local Monitoring Form. • <i>Local Monitoring Form (Version 2)</i> • <i>National Monitoring Form (Version 2)</i> <p>The following stakeholder agencies took part in the pilot-test training and field-work :</p> <ul style="list-style-type: none"> • PNG Eco Forestry Forum (NGO) • National Research Institute (Government) • PNG Forest Authority (Government) • Stettin Bay Lumber Company (Industry) • Landowner Representative (West New Britain Provincial Forest Management Committee)
Activity 4.1:	Appointment of a training consultant	This position was included in the project consultancy agreement with SGS PNG Ltd.
Activity 4.2:	Consultations with stakeholders on the design of the content of the training manual	<p>From May to September 2011, the <u>overall scope</u> of the Stakeholder Monitoring Module was defined through:</p> <ul style="list-style-type: none"> • Face-to-face meetings with over 50 registered organisations / sub-organisations in Port Moresby and the project's pilot areas with reference to a scoping questionnaire. • Phone / fax / email consultations with stakeholders in other locations. <p>From October to November 2011, an <u>acceptable framework</u> for the Stakeholder Monitoring Module was prepared through:</p> <ul style="list-style-type: none"> • Preparation and distribution of draft framework document to registered stakeholders for comments • Promotion of national workshop and draft framework document through article in national newspapers, together with links for downloading materials from project webpage. • Facilitation of 2-day national workshop with over 60 registered participants in Port Moresby to complete the framework document and identify remaining work to be done both during and after the project.
Activity 4.3:	Preparation of the training manual	<p>From December 2011 to September 2012, the Technical Committee of stakeholder representatives (nominated during national workshop) assisted with the preparation of the following documents:</p> <ul style="list-style-type: none"> • <i>Awareness Brochures (Version 1)</i> that introduce PNG's (i) Timber Legality Standard; (ii) Guidelines for Preparing an Organisational Code of Conduct; (iii) National Monitoring Form, and (iv) Local Monitoring Form. • <i>Local Monitoring Form (Version 1)</i> • <i>National Monitoring Form (Version 1)</i>
Activity 4.4:	Review of the manual by stakeholders	The documents listed above (activity 4.3) were widely circulated amongst the project's registered and other stakeholders via the project e-bulletin (mailing list has almost 300 subscribers) and webpage.
Activity 4.5:	Implementation of training program	<p>From 14 to 17 May 2013, the documents listed above (activity 4.3) were pilot-tested with the project's industry partner - Stettin Bay Lumber Company (SBLC).</p> <p>This field work comprised both training and field work with the following stakeholders:</p> <ul style="list-style-type: none"> • SBLC management and staff (office and field)

		<ul style="list-style-type: none"> • PNG Forest Authority staff (headquarters and local) • Technical Committee representatives (from each stakeholder group)
Activity 4.6:	Implementation of two weeks training for stakeholders	<p>On 6 June 2013, the project provided the National Forest Board with a progress report. Board members proposed the final versions be submitted for board approval before the end of the year.</p> <p>On 26 July, the Technical Committee approved the following materials for wider circulation amongst the project's stakeholders (including hard copies to the heads of key government departments):</p> <ul style="list-style-type: none"> • <i>Awareness Brochures (Version 2)</i> that introduce PNG's (i) Timber Legality Standard; (ii) Guidelines for Preparing an Organisational Code of Conduct; (iii) National Monitoring Form, and (iv) Local Monitoring Form. • <i>Local Monitoring Form (Version 2)</i> • <i>National Monitoring Form (Version 2)</i> <p>Once the final versions have been approved by the National Forest Board, and the most cost effective strategy for implementing PNG's Legality Assurance System has been selected, an awareness program for local stakeholders should become the next focus.</p>

4. Project Outcome, Target Beneficiaries Involvement

During the first six months period, the project produced the first Technical Report and the Technical Specifications for the system were prepared and submitted. Draft versions of these reports were prepared for review at the ITTO meeting held in Yokohama, Japan, in December 2010.

In the second six months period, the project produced the first Progress Report. A User Acceptance Testing version of the database software was prepared and tested.

Field testing of the software was carried out in late 2011 in the PNG FA Head Office, and the two partner company sites, Cloud Bay Sustainable Forestry Ltd, and Stettin Bay Lumber Company Ltd.

The Tables (Tables 6-9) below outlines how the Project Outcomes were achieved.

Table 6: Development principles, methods and outcomes under Output 1

Framework Principles	Development Methods	Outcome
The log and timber tracking and chain of custody system should be suitable for use in PNG.	Extensive consultation was held with PNG forestry stakeholders to ensure that the system proposed would be of value to the stakeholders	Output 1 has provided the PNGFA with a field tested pilot system which can form the basis of a future PNG wide implementation of a log tracking and chain of custody system. The system developed is compatible with international standards and clearly outlines the structure of the system for future development, modification, or implementation.
The log and timber tracking and chain of custody system should be acceptable as according to world standards	A major UK consulting firm with world wide experience in the development of log tracking and chain of custody systems was appointed to carry out the design and development of the system	
The log and timber tracking and chain of custody system should be suitable for future use in REDD, FLEGT and similar log source tracking standards	Interviews with forestry industry stakeholders involved in the future implementation of REDD and FLEGT systems were carried out to ensure that the system proposed for development would meet these future needs.	

Table 7: Development principles, methods and outcomes under Output 2

Framework Principles	Development Methods	Outcome
The timber products database should be fit for the purpose of usage in the system developed under Output 1.	The timber products database was developed as an integrated component of the log and timber tracking and chain of custody software system to ensure compatibility.	Output 2 has produced a timber products database structure imbedded as a component of the log tracking and chain of custody system developed under Output 1 which can be used or extended to provide compatibility with other forest management systems which may be developed by the PNGFA or other forest industry stakeholders.
The timber products database should be suitable for further integration in future forest management systems	An open development standard was included in the database, with a module which permits linkages to the database, import of external data, and export of data from the timber products database for use in alternative systems.	

Table 8: Development principles, methods and outcomes under Output 3

Framework Principles	Development Methods	Outcome
The Timber Legality Standard should be acceptable to overseas markets. It should stand alongside international benchmarks.	PNG's Timber Legality Standard has been aligned with: <ul style="list-style-type: none"> • The EU-FLEGT Action Plan's social, environmental and economic "principles". • The voluntary legality standards that have been developed for PNG by the Forest Stewardship Council (FSC) and the Société Générale de Surveillance (SGS). • Relevant international conventions. 	Output 3 has provided the PNGFA with a sound basis for implementing a Legality Assurance System that responds to timber procurement policies and stakeholder objectives. For example, preliminary discussions with the Australian Government regarding the verification of legal timber from PNG under the Illegal Logging Prohibition Act (2012) have been promising. Once the final versions have been approved by the National Forest Board and the completion report accepted by the International Tropical Timber Council the "implementation phase" should commence with the selection of the most cost effective strategy for implementing PNG's Legality Assurance System.
The Timber Legality Standard should be acceptable to local stakeholders. It should be developed in consultation with stakeholders	PNG's Timber Legality Standard has been developed in consultation with: <ul style="list-style-type: none"> • Over 60 registered stakeholders. • Over 200 non-registered stakeholders. • A technical committee of stakeholder representatives (landowner, industry, government and non-government). 	
The Timber Legality Standard should be implementable. It should be possible for forestry operators to practice.	PNG's Timber Legality Standard has been carefully reviewed and modified by the PNG Forest Industries Association (their executive officer also participated in the technical committee's wrap-up meeting)	
The Timber Legality Standard should be specific. It should be possible for forestry auditors to verify.	PNG's Timber Legality Standard has been field-tested at a forestry concession and further modified to suit field monitoring tasks.	

Table 9: Development principles, methods and outcomes under Output 4

Framework Principles	Development Methods	Outcome
<p>Monitoring tools should address three levels of assessment and understanding, namely:</p> <ul style="list-style-type: none"> • Local awareness • Local monitoring • National monitoring 	<p>A set of complementary monitoring tools have been developed, comprising:</p> <ul style="list-style-type: none"> • <i>Awareness Brochures</i> that introduce PNG's (i) Timber Legality Standard; (ii) Guidelines for Preparing an Organisational Code of Conduct; (iii) National Monitoring Form, and (iv) Local Monitoring Form. • <i>Local Monitoring Form</i> that provides the means for local stakeholders to assist the PNG Forest Authority measure forest industry participant compliance with PNG's Timber Legality Standard. • <i>National Monitoring Form</i> that provides the means for licensed auditors (including National Forest Service staff) to measure forest industry participant compliance with PNG's Timber Legality Standard. 	<p>Output 4 has provided the PNGFA with a comprehensive set of tools for deterring and detecting illegal practices within the forestry sector.</p> <p>The local stakeholders particularly the landowners and resource owners now have a role to play in the field monitoring process to support SFM.</p> <p>Once the final versions have been approved by the National Forest Board and the final report approved by the ITTC and the most cost effective strategy for implementing PNG's Legality Assurance System has been selected, an awareness program for local stakeholders should be designed and implemented.</p>

For Outputs 1 and 2, the participation by Cloudy Bay Sustainable Forestry Limited and Stettin Bay Lumber Limited was workable because the two companies were already engaged in FSC controlled wood and TLTV timber certification schemes respectively and ran this parallel to their existing systems which was proven to be compatible with valuable experiences gained.

Outputs 3 and 4 did involved a wider stakeholder participation to include the other relevant laws and processes necessary to support effective field monitoring work and to eradicate undesirable practices creeping into the system.

Project sustainability

Output 1:

A cost effective log tracking and timber tracking chain of custody verification system appropriate to the needs and requirements of PNG developed and field tested for implementation in collaboration with stakeholders

The log and timber tracking and chain of custody verification system has been developed and trialled in collaboration with key stakeholders and project development partners. Implementation of the software system will require a source of funds to pay for software licensing and usage costs.

Output 2:

A database to capture timber products flow information developed and field tested for implementation

The database has been developed in cooperation with project partners. Field testing has been completed. The database was able to function as required and is now ready for further expansion nationwide. The database is integral to the system developed under output 1. Further use of the database is dependent on the sourcing of funding for implementation costs as pointed out under Output 1.

Output 3:

A legality standard based on FLEGT guidelines and principles and industry code of conduct developed for implementation in PNG in collaboration with key stakeholders.

Output 3 has provided the PNG Forest Authority with a sound basis for implementing a Legality Assurance System that responds to timber procurement policies and stakeholder objectives. The *Timber Legality Standard* and *Guidelines for Preparing and Industry Code of Conduct* have been developed in collaboration with key stakeholders, including major NGOs, the PNG Forest Industry Association and PNGFA. The fact that these parties have managed to come to a reasonable compromise on the legality requirements means that the new standard is robust and credible both nationally and internationally. The favourable response received from the Australian Government during recent meetings regarding the verification of legal timber from PNG under the Illegal Logging Prohibition Act (2012) is also a promising signal.

The final versions of the *Timber Legality Standard* and *Guidelines for Preparing and Industry Code of Conduct* are expected to be approved by the National Forest Board towards the end of 2013; paving the way for the “implementation phase” which should begin with selection of the most cost effective strategy for implementing PNG’s Legality Assurance System.

Output 4:

A training module for enhancing the skills and expertise of key stakeholders particularly the PNGFA and forest industry participants in the monitoring of forestry activities to deter and detect illegal practices developed and implemented.

Output 4 has provided the PNGFA with a comprehensive set of tools for deterring and detecting illegal practices within the forestry sector. The final versions of the *Awareness Brochures*, *Local Monitoring Form* and *National Monitoring Form* are expected to be approved by the National Forest Board towards the end of 2013.

5. Assessment and Analysis

The Project has been well-designed, leading to the step-by-step development of an enhanced forest law enforcement “regime” for PNG.

The log tracking system under Output 1 was designed by the SGS consortium with inputs from PNGFA. Output 2 was developed as part of the same system; the design followed the log monitoring procedures and steps used by PNGFA. Trials done on the system via the Helveta website did prove that important vital information on log origins, ownership of logs, species, sizes, data security and the different levels of reporting can be achieved. The trial royalty assessment; a vital component enabling resource owners receive payment for their logs before logs can be exported as legal was achieved with some minimal difficulty at times in accessing the data.

This worked well because the two project partners were big companies perhaps chosen by design to make work easy in the field. For the smaller companies it was assessed that this would be a burden if costs would be high and for those with short term tenure of projects say five years or less it may not be economical to maintain such a system and this is the perception on the ground at project completion.

The second progress report identified a critical component of the project’s success to be the degree to which the two companies working with the project commit to the field test of the pilot system. This proved to be accurate, with the project team needing to spend a considerable amount of time in motivating and encouraging the users. This is often the case in the implementation of new software systems, where the users initially are faced with added work with no immediate benefit shown.

Any future implementation of a log and timber tracking and chain of custody system for PNG should devote a high degree of the implementation budget to training and motivating the companies and individuals who will actually do the implementation. Implementation will need to run parallel with the PNGFA existing system driven from the bottom up, and not imposed from the top down to be successful.

Output 3 was well implemented with wider inputs from stakeholders, PNG’s Timber Legality Standard provides the PNGFA with a sound basis for implementing a Legality Assurance System that responds to timber procurement policies and stakeholder objectives.

The development of a monitoring module for Output 4 was carefully designed, both documents including the above did made reference to the PNG Logging Code of Practice and as reference materials in the monitoring forms.

Other factors affecting the implementation and sustainability of the project include:

5.1 Extension of the tracking software system to a PNG-wide implementation

Consideration will need to be given on the most efficacious way to extend the ITTO funded pilot project in PNG into a nationally deployed operational system, with the aim of improved forest governance and timber traceability to include both technical, relating to the software system, as well as the overall institutional context into which a national system will operate. The pilot system was capable of operating nation-wide, but an increase in scope to operate nation-wide will need to consider those areas where internet communication is not established and those operators who lack IT capacity and support. Added operational cost if significant would be another risk particularly to the smaller operators with short term timber tenure.

5.2 The Software scope

One of the goals of the project was to help the PNGFA and industry partners identify the institutional impact a national timber traceability system would have. It is usual for the digitization of existing process to reduce time, effort and workloads. However in the context of tropical timber producing countries striving to improve forest governance and legality, an electronic timber traceability system will require a scaling up of human resource and capacity and the introduction of operating procedures and manuals that did not exist before are some of the lessons learned that will be looked at. This investment is repaid many times over as a result of sound monitoring of logging operations and the prevention of undervaluing of logs and timber and thereby increasing taxes and revenue.

The current scope of the pilot software system was limited so as not to demand an unrealistic operational overhead from an already stretched forest administration during the pilot. Therefore a national roll out of the system would necessarily require the functional expansion of the system to include increased inspection control throughout the supply chain.

The functional expansion would involve a limited amount of consultancy work to do gap analysis as well as some development effort to bridge the gap identified.

5.3 Software licence and hosting

During the course of the pilot, the software system operated was hosted outside of the PNGFA system with a reduced rate term licence by the project partners. The sustainability of this arrangement is not permanent subject to licensing fees which we have no control over and is a risk to the project sustainability. It was for this reason that we could not provide a software program expected at project completion to the EA and ITTO.

5.4 Current PNGFA arrangement in Capacity Building and Industry Transformation

Moving from a pilot development to a national roll out will require considerable amount of work into expanding the Traceability system. There must be a comprehensive training and

capacity building drive to ensure the industry is ready to meet the requirements of the system and execute the new governance procedures that are to be supported by the system. In this connection, a second phase project is necessary to scale up or realize the implementation of the tools, systems and processes developed during the first phase.

One component of this will be the integration of the would-be software developed during the ITTO project: *PD 449/07* with the new (PNGFA database system that is currently being developed to host all the PNGFA database information.

This integration will need to ensure that PNGFA has access to all appropriate data, but that forest companies only have access to data for their operations.

Having the software securely stored is important to allow PNGFA options to undertake comprehensive training and awareness to forest and industry officers to get used to the system. There will be two permanent personnel assigned to manage the database system.

6. Lessons learned

The project extended over a three year period, and resulted in a wide variety of factors affecting the progress of the project development. The following factors are amongst those observations made which should be given consideration for future project implementation.

6.1 Timely reporting

Project funds arrived at irregular intervals due to reports not furnished on time based on the ITTO Project guidelines by the Executing Agency. As a result the project time frame was extended to three years, and the project had to stop operating for extended periods.

Because of this, valuable project momentum was lost. Planned activities had to be cancelled or delayed. This led to a loss of interest in the project by stakeholders. Valuable support for the project was lost when planned activities did not take place. By the end of the project many stakeholders had discounted the project.

6.2 Ensure project partners are fully committed

A vital component of the project was logging operators who were willing to take part in the project. The project had some difficulties attracting partners, in part due to partners concerns over the nature of the project particularly where they may be perceived as operating illegally and in part due to potential partners being concerned at possible higher costs and time commitments that might be faced.

The project however was able to find two supportive partners Cloudy Bay Sustainable Forestry Limited and Stettin Bay Lumber Company limited with differing operations and in different locations. These partners made valuable contributions to the project.

Perhaps future projects should consider drawing up specific contracts for partners as such for them to take ownership roles in project implementation.

6.3 Maintian flexible control over software systems developed

Due to the delayed arrival of project funds the final testing phase of the project was abbreviated, as the project agreements with the software supplies specified the software license would either require further funding or be terminated in August 2012. The lack of funds resulted in software development fees being paid late, resulting in a deterioration in relationships between the software development partner and the project implementation team. As such, the software development partner was not prepared to extend the license at no cost, due to the project not being able to pay the development costs and fees incurred.

In future such projects should ensure a greater degree of ownership is maintained in the software under development or implementation, and a greater degree of flexibility is maintained in the software licensing, including provision for suspension of software licenses if funding problems are encountered.

This may also be a lesson for the Executing Agency as we were not fully aware of the extent of this problem and so were not able to take remedial actions.



7. Conclusions and recommendations

Identification and implementation of the project was adequate and timely for the PNG Forest Industry sector to re align and enhance its operating mechanisms to meet market demands.

A timber tracking and chain of custody system including a timber products database has been developed and pilot-tested in PNG proving that this can be achieved.

The system developed shows the manner in which a system can be implemented in PNG when a suitable source of implementation funding has been developed and has to run in parallel to the existing system to be successful.

A legality standard based on FLEGT guidelines and principles, together with an industry code of conduct “template”, has been prepared for future implementation in PNG. A set of monitoring tools incorporating the existing PNGFA Logging Code of Practice as reference points in the monitoring forms to enable independent verification. This has also been developed and pilot-tested for assessing forest industry participant compliance with PNG’s Timber Legality Standard.

A second phase of the project is considered necessary for the development of procedures and manuals and scaling up in association with the integration of the PNGFA database system that is being developed.

Project design was adequate for the four outputs with activities streamlined and implemented to achieve the intended outcomes however implementation, organization and management of the project was generally affected due to situations expressed that allowed the project to be delayed.

Annex 1. Project financial statement

Project No. PPD 449/07 (M.I.)		Period ending on: 31/08/2013			
Project Title: Enhancing Forest Law Enforcement in PNG					
ITTO Component	Approved	Expenditures To-date			Unexpended
	Amount (A)	Committed (B)	Expended (C)	Total (D) { B + C }	Amount (E) { A - D }
I. Funds managed by Executing Agency					
10	Project Personnel				
11	National Experts	-	-	-	-
12	National Consultants	58,000	77,007	77,007	(19,007)
13	Other Labour (Project Management)	90,000	78,000	78,000	12,000
16	International Consultants	110,000	233,923	233,923	(123,923)
17	6 one day Workshops	15,000	-	6,372	8,628
19	Component Total:	273,000	-	395,302	(122,302)
30	Duty Travel				
31	Daily Subsistence Allowance	75,000	19,277	19,277	55,723
32	International Travel	4,000	-	8,180	(4,180)
33	Transport Costs (Domestic)	40,000	21,038	21,038	18,962
39	Component Total:	119,000	-	48,495	70,505
40	Capital Items				
44	Capital Equipment	8,000	-	18,501	(10,501)
49	Component Total:	8,000	-	18,501	(10,501)
50	Consumable Items				
53	Fuel and utilities	-	-	-	-
54	Office supplies	-	-	-	-
59	Component Total:	-	-	-	-

60	Miscellaneous					
61	Auditing	3,000	-	-	-	3,000
62	Sundry (Bank fees)	5,000	-	291	291	4,709
63	Contingencies @ 2%	12,000		-	-	12,000
69	Component Total:	20,000	-	291	291	19,709
70	Executing agency management cost					
71	Cost at 15%	-			-	-
79	Component Total:	-				-
	Sub-Total:	420,000	-	462,588	462,588	(42,588)
80	ITTO Monitoring & Administration					a/
81	Monitoring and Review Costs	8,000				a/
62	Evaluation Costs	10,000				a/
83	Programme Support Costs (@ 8%)	35,040				a/
79	Component Total:	53,040				a/
	Sub-Total:	53,040	-	-	-	a/
99	GRAND TOTAL:	473,040				

Note: Budget Components are those detailed in the Project Document.

a/ Funds retained and accounted for by ITTO - details not available with Executing Agency.

Note. Apparent overspending of funds received is due to exchange rate differences. No external funds were spent.

Annex 2. Project cash flow statement

Project No. PPD 449/07 (M.I.)		Period ending on: 31/08/2013		
Project Title: Enhancing Forest Law Enforcement in PNG				
Component	Reference	Date	Amount	
			in US\$	Local Currency
A. <u>Funds received from ITTO:</u>				
Balance bought forward		29/02/2012	-2792	-17887
ITTO Funds via PNG FA		3/07/2012	107000	211875
ITTO Funds via PNG FA		9/01/2013	107000	217480
Total Funds Received:			211208	411468
B. <u>Expenditures by Executing Agency:</u>				
10. Project Personnel				
11. National Experts			0	0
12. National Consultants			36572	74082
13. Other Labour (Project Management)			44000	89431
16. International Consultants			153473	327166
17. 6 one day Workshops			4915	11660
19. Component Total:			238960	502339
30. Duty Travel				
31. Daily Subsistence Allowance			8517	17814
32. International Travel			2540	5440
33. Transport Costs (Domestic)			3597	7257
39. Component Total:			14654	30511
40. Capital Items				
44. Capital Equipment			0	0
49. Component Total:			0	0
50. Consumable Items				
51. Office Supplies				0
52. Fuel and utilities				0
59. Component Total:			0	0
60. Miscellaneous				

61. Auditing			0
62. Sundry (Bank fees)		182	385
63. Contingencies @ 2%			
69. Component Total:		182	385
70. Executing agency management cost			
71. Cost at 15%			
79. Component Total:			-
Total Expenditures To-date:		253796	533234
Remaining Balance of Funds (A-B):		-42588	-121766
Notes:	(1) Amounts in U.S. dollars are converted using the average rate of exchange when funds were received by the Executing Agency		
	(2) Total Expenditures To-date (in local currency) should be the same as amount shown in Sub-Total of column (C) of the Financial Statement.		

Annex 3. Technical reports

Jan. 2011. Technical Report One. Baseline survey methods, findings and recommendations

May. 2011 Technical Report Two. Technical specifications for software system

Dec. 2011. Technical Report Three. Developing an acceptable framework for Papua New Guinea's timber legality standard, industrial code-of-conduct and stakeholder monitoring module.

Oct. 2012 Technical Report Four. Pilot testing of Papua New Guinea log tracking software system

May 2013. Technical Report Five. Testing of the Papua New Guinea timber legality standard.