



PROJECT COMPLETION REPORT

Period of November 2015 to November 2018

ITTO PD 477/07 REV. 4 (F)

**"Improving Forest Functions in Bengkulu Province through Community Participation
in Rehabilitation of Degraded Forest by Using Local Prospective Commodities"**

REPUBLIC OF INDONESIA

Directorate of Forest Tree Seed
Director General of Watershed Controlling and Reserved Forest
Ministry of Environment and Forestry

Jakarta, March 2019

Project Number : ITTO PD 477/07 Rev. 4 (F)
 Starting Date : 1st December 2015 to 30th November 2018
 Duration : 36 Months, extended to 2 months
 (1st December 2018 to 31st January 2019)
 Project Costs :

Source	Source	Remarks
ITTO	338,256	a. The start of the project
	318,736	b. Reduction in 2016
Government of Indonesia (in-kind)	92,168	c.
Total (b + c)	410,904	

Project Completion Report

Project Coordinator : Dwi Arianto H. D
 Project Secretary/ Financial Staff : Afiefah Bainnaura
 Field Coordinator : Dr. Rustama Saepudin
 Technician : Nyoman Mudiarte (North Bengkulu) and Irsya Awalia (Seluma)
 Executing Agency : Directorate of Forest Tree Seed
 Director General of Watershed and Protected Forest Management
 Ministry of Environment and Forestry
 Office Address:
 Manggala Wanabhakti Building Block I, 13th floor
 Jl. Jend. Gatot Subroto, Senayan Jakarta Pusat 10270,
 Indonesia
 Telephone : +62-21-5730179, 5730332
 Facsimile : +62 21 5730175
 Cooperating Agency : Environment and Forestry Service of Bengkulu Province
 Jl. Pembangunan, Padang Harapan, Kota Bengkulu
 Telephone : (0736) 20091, 22856
 Facsimile : (0736) 22856

JAKARTA, MARCH 2019

All right reserved. Printed in Indonesia. Except for the logo, graphical and textual information in this publication may be reproduced in whole or in part provided that not sold or put to commercial use and its source is acknowledged.



Table of Contents

List of Table -----	v
List of Figures -----	vi
Executive Summary -----	vii
I. Project Identification -----	1
1.1. Context -----	1
1.2. Origin and Problem -----	1
II. Project Objectives and Implementation Strategy-----	3
2.1. Project Rationale -----	3
2.2. Project Implementation Strategy -----	3
2.3. Assumptions and Risks-----	4
III. Project Performance-----	6
3.1. Specific Objectives -----	6
3.2. Project Outputs and Related Activities-----	6
3.3. Project Schedule and Duration-----	7
3.4. Project Budget and Applied Input -----	8
IV. Project Outcome and Target Beneficiaries Involvement-----	10
4.1. Specific Objective Achievements -----	10
4.2. Project Implementation and Target Beneficiaries-----	10
4.3. Existing situation at project completion as compare to the pre-project situation -----	19
4.4. Project Sustainability -----	21
V. Assessment and Analysis -----	23
5.1. Project Rationale and Identification Process-----	23
5.2. The problems addressed, project design and implementation strategy-----	23
5.3. Critical differences between planned and actual implementation -----	24
5.4. Adequacy of project inputs -----	25
5.5. External influences-----	26
5.6. Project beneficiaries-----	26
5.7. Project sustainability-----	26
5.8. The Institution Involved inProject Implementation-----	27
VI. Lesson Learned-----	28
6.1. Lesson Learned from Project Identification, Design, and Implementation -----	28
VII. Conclusions and Recommendations-----	30

List of Table

Table 1. Status of Project Completion based on the outputs-----	6
Table 2. Performance of each activities-----	7
Table 3. Budget Modification of Each Component -----	8
Table 4. Budget Implementation of the Activities-----	8
Table 5. Budget Recapitulation-----	9
Table 6. The number of living plants in each model location -----	17
Table 7. Project’s objectives and outputs achievement -----	19
Table 8. Project’s meetings -----	20
Table 9. Task & Responsibility for Post-Project Activities -----	22

List of Figures

Figure 1 (from left to right): (a) Habitus of Bentara Durian Mother Tree, (b) Mr. Sutarkam, the owner of mother tree, and (c) Bentara Durian fruit-----	11
Figure 2. (a) Seed Source of "Kayu Bawang Penyangkak" and (b) Habitus of Kayu Bawang tree -----	11
Figure 3. Participans of TOT on Propagation Technique of Bentara Durian and Kayu Bawang	12
Figure 4. Two Technical Guidelines produced by the Project-----	13
Figure 5. Workshop on the Plantation Technologies of the Selected Species-----	14
Figure 6. The Nursery of Kayu Bawang developed by Farmers Group-----	15
Figure 7. Graphic of Seedling Distribution -----	16
Figure 8. Seedlings distributed to farmer groups-----	16

Executive Summary

This project completion report is prepared as one of responsibilities of the project activities. The purpose of report is to report all of project activities between November 2015 and January 2019. The report focused on project result, impact achievements and also lesson learnt.

One of the causes of failure in the Forest and Land Rehabilitation (FLR) activities in Bengkulu Province is due to lack of use of prospective local plants. In addition, it is also due to the low participation, capacity and awareness of the community as well as related parties (especially regional stakeholders) in the FLR activity itself.

The ITTO's project entitled "Improving Forest Functions in Bengkulu Province through Community Participation in Rehabilitation of Degraded Forests by Using Local Prospective Commodities" has been implemented with the objectives are (1) to implement appropriate technology for the production of qualified planting materials from prospective local species commodities and (2) to improve stakeholder involvement and the welfare of community through the success of forest and land rehabilitation and local prospective commodities plantation. To achieve these objectives, it is necessary to carry out identification and selection of prospective local plants. This activity involves the local community around the forest and related parties (Forest Management Unit) who manage the forest. Furthermore, a number of cadres were selected from the community and related parties to be given the opportunity to join in the training on seed propagation technology and methods of manage plants in the field.

The project has been implemented by the Ministry of Environment and Forestry in collaboration with Environment and Forestry Service of Bengkulu Province and the local communities. The promoted prospective local plants are Kayu Bawang (*Azadirachta excelsa*) and Bentara Durian (*Durio zibethinus*). The expected outputs of the Project are as follows: (1) Seed sources of selected species identified and their suitable technology developed, (2) Technical guidelines for handling the selected species developed and disseminated, (3) High quality planting materials for plantation produced and distributed, and (4) Community-forestry plantation model involving relevant stakeholders developed.

Considering the outputs generated from the project, the first objective has been achieved. The indicator of this specific objective achievement is produced and cultivated Kayu Bawang and Bentara Durian seedlings. Kayu Bawang seedlings derived through identification and selection techniques on qualified seed source. Meanwhile, Bentara Durian seedlings produced from the oculation (budding) method on the superior variety of mother tree. The project objective on the improvement of community welfare still cannot be assessed yet due to the short duration of project that is only 3 years.

In term of FLR, the activity implementation has represented attempts to restore and improve the forest and land functions. But, further research is still needed to evaluate whether forest and land have returned to their original functions or not. Moreover, this activity was solely carried out in the model scale.

In general, the project outputs were accomplished through an adequate process involving the community and main stakeholders to participate and took an initiative on FLR activity by using promoted prospective local plants.

Regarding to the result of model activity as a pilot, the project not only observed the wood potential, but also the potential of non-wood products from Bentara Durian. For example, through the continuous maintenance, it was estimated that Bentara Durian will produce fruits at

the age of 6-7 years. Bentara Durian is a high quality variety of durian and combination of Kayu Bawang – Bentara Durian will benefit to the community.

In this activity many factors must be considered, such as forest areas, the involvement of surrounding communities, selected local prospective commodities, seed propagation technology and how to manage plants, participation of related parties such as the FMU, and so on. The integration of all these factors will deliver the success of plant rehabilitation. The success of rehabilitation must be supported by the downstream economic sector (e.g. distribution and marketing) so that the results of rehabilitation activities such as Kayu Bawang timber and durian fruit capable to provide economic benefits to the surrounding community.

From the several factors above, not all of them give good results. For example, community participation factors; there are significant differences in participation based on the location of the selected activity.

The presence of Bentara Durian in the location model could be developed for other business opportunities. When Bentara Durian stands harvested, the model location and its surrounding can be developed into the adventure and nature tour packages combined with culinary tour of Bentara Durian. This is one of the project efforts to attract the community to be actively involved in the model offered.



I. Project Identification

1.1. Context

The size of forest area recorded in 2017 in the province of Bengkulu is approximately 46,54% (924,631 Ha) of the province's total area. The Head of Environment and Forestry Service of Bengkulu Province stated that as many as 657.049 Ha area or 71% of total forest area is in degraded condition. The specific characteristic of the forest area is typically distributed in a narrow strip from the North to the South East of Sumatra. The vast portion of this area is located in the mountainous area with relatively higher elevation. By this characteristic, this forest area is highly important and its ecosystem function as source of water for the lower landscape is very critical. Likewise, the forest is also very critical to stabilize the whole ecosystem in the catchments area and functioning to protect from flooding, land sliding etc. which are related to the rainfall.

Ironically, most of this forest area has been converted to other uses (approximately 43,15%) such as for coffee cultivation, rubber tree plantation, palm oil plantation, paddy and other agricultural uses and the remaining forest areas, approximately 523.429 ha or 56,85% has also been severely degraded (Land Coverage Map of Bengkulu Province, 2003). Its forest degradation rate (deforestation), especially in production forest area, is recorded much higher than the rate of forest rehabilitation, which is only 3,15% within the last 3 years.

The major causes of forest degradation in this province are slightly similar to that of other provinces in Sumatra, such as over-exploitation including illegal logging and conversion to other uses. Over exploitation, illegal logging and conversion are mostly due to poor law enforcement in the implementation of sustainable forest management, forest protection and conservation, lack of awareness on forest function and economic pressure (poverty and the lack of sustainable source of income). This situation, directly or indirectly, contributes to slow progressing in forest and land rehabilitation, poor forest protection and insignificant nature conservation efforts.

At the national level, Ministry of Forestry (now Ministry of Environment and Forestry), has set out a national programs to restore forest resources and improve forest ecosystem, through (1) Eliminating illegal logging from state forest including its trade of illegal timbers, (2) revitalizing forest sector, especially forest industry; (3) Rehabilitating and conserving forest resources; (4) Empowering social economic in and around forest area; and (5) establishing forest regions.

1.2. Origin and Problem

The Province of Bengkulu, which has relatively small forest area but the higher percentage of degraded forest has also adopted and initiated several field activities related to National program ... involving local community participation. Those ... Planning Strategy for Forest Management ... Planning Strategy some priorities have ... forest utilization for social ... respective commodities and ... support program at ... map, rough baseline ... to facilitate all field ... es which are specific to ... therefore, is expected to



contribute to the enhancement of the rehabilitation through the provision of appropriate and applicable technologies for these species involving local community participation.

In order to restore the forest ecosystem as a whole and conserving the remaining forests at provincial level, the Bengkulu Provincial Forest Service (now Environment and Forestry Service) has put priorities in accordance with local specific problems, as described in the programs of Provincial Forest Service for the period of five year, until 2012. Intervention by ITTO Project is critically important to the acceleration of the achievement of the program objectives. This has not been specifically elaborated in the program. The project has offered the most important part in the provision of appropriate technology to enhance the improvement of propagation and plantation technology for most locally adapted species, the improvement of community forest and cooperation, community involvement (participation) and alternative sources of income, which in turn, will also improve community prosperity.

Several meetings and small workshops have been carried out since 2004 in Bengkulu, Jakarta and Bogor to discuss necessary means to enhance rehabilitation performance of forest resource and land in the Bengkulu provincial, including the possibility of proposing funding assistance. Results of the meetings and workshop, among others, were summarized below:

- 1) It is urgent to enhance successfulness of the forest and land rehabilitation in Bengkulu.
- 2) The choice of species should be locally adapted species and having high economic potential, especially to local communities.
- 3) The project intervention is necessary and should focus on the development of propagation technology and its application in field plantation.
- 4) The project should involve local communities around the forest areas.

The four points above had been incorporated in project proposal. The potential success of this project was indicated, especially due to the presence of several high economic value species which had been locally adapted and traditionally planted by local community. The technology for these timber species was not developed although those species has potential economic value. Some of those species were Kayu Bawang (*Azadirachta excelsa*), Bambang Lanang (*Michelia spp*), *Mangifera spp*, *Durio spp*, *Parkia spp* and many others including a non-timber forest product, such as rattan (*Calamus manan*).

II. Project Objectives and Implementation Strategy

2.1. Project Rationale

Forest utilization that disregards the principles of sustainability had become main factor of forest destruction in Bengkulu Province. Harvesting method which was not considering to sustainability, illegal logging, encroachment and land conversion are several forms of unsustainable forest utilization.

On the other hand, Forest and Land Rehabilitation (FLR) program which had been implemented had not shown a maximum result on overcoming of forest degradation. Furthermore, support on the sustainable forest management from local community and related parties (especially regional stakeholders) were also still not optimal yet. These obstacles such as forest utilization (which is not considering sustainability principles), unsatisfactory results of FLR program as well as low participation of local community and related parties in the forest management had led into increasing poverty of the community around the forest. Their income from forest decreased.

ITTO collaborated with the Ministry of Environment and Forestry (MoEF) (c.q. Directorate of Forest Tree Seed under the Directorate General (DG) of Watershed and Protected Forest Management) and Environment and Forestry Services of Bengkulu Province had formulated the issues on the FLR activity, namely: (1) lack contribution of the prospective local plants on improving community welfare and (2) low participation, capacity and awareness of the community as well as related parties in the FLR activity itself.

In the further observation, the first issue in the above was due to three (3) things that were deficiency seed/seedlings sources production, lack of mastery on the propagation technology as well as technology on seedling planting. While the causes of the second issue were also due to 3 things, specifically: imprecise selection of the species and planting pattern, low understanding and less expertise on the propagation and planting of prospective local plants, as well as low awareness of local community in the FLR activity.

The ITTO's project entitled "Improving Forest Functions in Bengkulu Province through Community Participation in Rehabilitation of Degraded Forests by Using Local Prospective Commodities" had been implemented with the development objectives were to contribute to the sustainable forest management in Bengkulu provincial forest through rehabilitation and community prosperity improvement by planting local prospective commodities. While the specific objectives were (1) to implement suitable technology for production of high quality planting materials of locally adapted and prospective commodities for plantation and (2) to improve stakeholder involvement and community prosperity through successful rehabilitation and plantation of local prospective commodities.

2.2. Project Implementation Strategy

The project agreement was signed by ITTO on 24 October 2014 but the project effectively implemented in December 2015 (based on the start of using the project budget). As with initial planning, the project mobilized local community in the implementation of project to achieve overall outputs. Wider participation of stakeholders and communities were encouraged to achieve "Community-Forestry Model Developed" in three different stages: diagnostic, designing

and delivery stage. Diagnostic stage involves several activities such as secondary and primary data collection, especially for the two target districts, participatory observation, household survey, and key or community leader's interviews and workshops or consultation meetings. Selected members of the community were hired during seed source identification, collection of planting materials (seeds), seeds and seedling handlings and nursery growing. The involvements of communities in the next stages were determined based on the outcome of the diagnostic stage.

To achieve the objectives, the following strategies were chosen. In the first phase of the project, several steps have been carried out are as follows:

- 1 Re-identity the existing sources of seeds from pre-identified and locally adapted potential species for seed and seedlings production.
- 2 Conduct a stakeholder consultation or participatory discussion with local communities and relevant stakeholders on species and demonstration sites selection for the establishment of plantation model. Two districts with high accessibility will be chosen for the plantation model sites and one and / two demonstration sites will be established in each district. The potential districts are Bengkulu Utara and Seluma.
- 3 Develop propagation and plantation technologies in collaboration with relevant institutions. Compile all existing and relevant technologies and analyze their compatibility to the pre-identified species. Several qualified/ capable institutions have been carried out these activities, such as Regional I of Forest Tree Seed (BPTH Wilayah I), Department of Forestry (University of Bengkulu), South Sumatra Regional Research Center (Forestry Research and Development Agency-FORDA) and other related institutions.
- 4 Carry out training workshop or forest extension to improve institutional capacity, community awareness and coordination for whole forest management in the province. The capacity building workshop is expected to be participated not only by related forestry institutions but also other relevant institutions, such as Regional Office for Ministry of Agriculture, Ministry of Environment and Forestry, Provincial Planning and Development Agency and Universities.

2.3. Assumptions and Risks

The Ministry of Environment and Forestry of the Republic of Indonesia has implemented several priority programs to achieve sustainable forest management, both in state and community-owned areas. The priority programs include (1) Rehabilitation and conservation of forest resources; and (2) Socio-economic empowerment in and around forest areas.

The two priority programs have been implemented through various operational activities with the target area of over 3 million ha of rehabilitated areas of forest and land by the year 2012. The priority programs have also been decentralized into provincial level. Bengkulu Provincial Environment and Forestry Service has set out a plan to rehabilitate at least 280.000 ha degraded forest area and other community land surrounding provincial forest land.

To ensure the success of the rehabilitation programs, Provincial Environment and Forestry Services coordinated the field implementation in assisting in the provision of high quality planting materials for plantation, developing technologies by collaborating with other agencies, empowering community and improving local community participation in forestry program and coordinating with other relevant stakeholders.

In this province and nearby areas, several studies have been carried out to support the rehabilitation program, especially on the choices of species through species trials, propagation and rehabilitation technologies and community empowerment model. Lessons for improving

local community involvement could be taken from some existing ITTO projects, which are nearly similar to their background problems, such as PD210/03 Rev.3 (F): Participatory Establishment of collaborative sustainable forest management in Dusun Aro Jambi; PD271/04 Rev.2 (F): Rehabilitation of degraded forest land involving local communities in West Java; PD386/05 Rev.1 (F): Technological development for the production of planting materials to support sustainable plantation of Bali indigenous species through community participation.

The project was designed to complement the national program on reforestation and rehabilitation of degrade land. As this program received full commitment from the central and provincial government as well as district and therefore the risk of failure in the execution was unlikely to occur. The project had better sustainability since most of the project activities were related to the improvement of local community prosperity through direct involvement by all relevant stakeholders in this province, starting from the planning process until the execution of project activities.

Fire hazard is always a potential risk in any plantation in Indonesia. Its intensity is recorded relatively low in Bengkulu provincial forests. However, various ways have been developed to minimize the risk of forest fire. The project emphasizes on community participation and therefore the risk of fire hazard could be minimized. As a preventive measure, fire break or fire belt along the demonstration site (as also part of the model) may be planted around the plantation model.

The farmers are mostly reluctant to participate in the project at the initial stage due to lack of knowledge, awareness and immediate benefits from project activities. Therefore, it is important that a survey and stakeholder consultative meetings need to be conducted, especially those related to plant certain species for certain areas to determine the preference, the need and the condition of local people. This would minimize the risk of rejection from farmers.



III. Project Performance

3.1. Specific Objectives

Success indicator of FLR activity could be observed from many factors. Nawir et al. (2008) stated that there was no project can be assessed entirely successful or failed; after every aspect of the implementation are considered (viz. aspect of technical, socio-cultural, economy and institutional), the project usually success or fail only on certain aspect or stages depend on viewpoint of related stakeholders.

As mentioned before that objectives of this Activity project were (1) To implement suitable technology for production of high quality planting materials of locally adapted and prospective commodities for plantation (2) To improve stakeholder involvement and community prosperity through successful rehabilitation and plantation of local prospective commodities.

3.2. Project Outputs and Related Activities

In principle, all activities in the project have been carried out well and produce output as planned. However, some stages in the process of the activity must be repeated or require additional time. From table 1, it can be seen that all project activities were completed, but certain activities were not realized on schedule.

Table 1. Status of Project Completion based on the outputs

Output	Activities	Completion status/remarks
Output 1.1. Seed sources of selected species identified and their suitable technology developed	1.1.1. Identification of seed sources for 2 selected indigenous species (<i>Azadirachta excelsa</i> and <i>Durio spp</i>),	Completed. Kayu Bawang seed sources and Bentara Durian mother tree are available.
	1.1.2. Development of propagation and plantation techniques for the selected species,	Completed. Techniques on propagation and plantation for Kayu Bawang dan Bentara Durian are developed
Output 1.2. Technical guidelines for handling the selected species developed and disseminated	1.2.1. Preparation and development of technical guidelines on seed handling and planting for the species	Completed. Technical guideline is available (has been produced)
	1.2.2. Workshop on plantation technologies of the selected species	Completed. Proceeding of Workshop is available.
Output 2.1. High quality planting materials for plantation produced and distributed	2.1.1. Improve nursery technology to produce and distribute planting materials	Completed. High quality materials plantation has been produced from the nursery that developed by community.
	2.1.2. Distribute high quality planting materials to participating communities	Completed. Communities grow/ cultivate high quality seedling.
Output 2.2. Community - forestry plantation model developed	2.2.1. Review and refine the existing community forestry plantation model	Completed. 1) Baseline data of vegetation and community socio-economic are collected and 2) Technical Design of Models are developed

Output	Activities	Completion status/remarks
	2.2.2. Develop and establish model in 2 districts	Completed. Models are developed in Seluma District and North Bengkulu District.

Table 2. Performance of each activities

Related Activities	Person/Institution in Charge	Performance	
		Planned	Executed
Output 1.1. Seed sources of selected species identified and their suitable technology developed			
1.1.1. Identification of seed sources for 2 selected indigenous species (<i>Azadirachta excelsa</i> and <i>Durio spp</i>),	Project Coordinator, MoEF, and Forestry Service of Bengkulu Province	May 2016	May 2016
1.1.2. Development of propagation and plantation techniques for the selected species,	Project Coordinator	May – June 2016	May – June 2016
Output 1.2. Technical guidelines for handling the selected species developed and disseminated			
1.2.1. Preparation and development of technical guidelines on seed handling and planting for the species	Herry Gusmara, M. Sc, National Expert from University of Bengkulu	6 months	6 months
1.2.2. Workshop on plantation technologies of the selected species	Project Coordinator	August 2016	August 2016
Output 2.1. High quality planting materials for plantation produced and distributed			
2.1.1. Improve nursery technology to produce and distribute planting materials	Dr. Gunggung, National Expert from University of Bengkulu	6 months	6 months
2.1.2. Distribute high quality planting materials to participating communities	Farmers Group and Seed Breeder	1 stage	2 stages
Output 2.2. Community - forestry plantation model developed			
2.2.1. Review and refine the existing community forestry plantation model	Dr. Yansen, National Expert from University of Bengkulu	June 2016	June 2016
2.2.2. Develop and establish model in 2 districts	All participant	Continually	Continually

3.3. Project Schedule and Duration

In accordance to the existing document, the time period of this project is 36 months. Although the project document was signed on 24 October 2014, implementation of the project was held effectively on 1 December 2015 and completed on 30 November 2018. Moreover, It has been approved that the project will be extended to 2 (two) months from December 2018 to January 2019 without additional ITTO fund based on the results of PTC-V on 11 October 2018.

3.4. Project Budget and Applied Input

The project budget was originally at USD 430,424 included ITTO contribution (USD 338,256) and GoI contribution (USD 92,168). In 2016, there was new policy from ITTO to reduce the budget so that ITTO fund contribution decreased become USD 318,736. Therefore, the total amount of project budget become USD 410,904 and the project only manage as much as USD 255,680 (less than budget planned as USD 275,200).

The budget modification was done 5 (five) times during implementation of project activities. The backgrounds of budget modification proposal are to adjust the lots of price standard and technical & non-technical needs of the activities due to many differences found in the initial proposal that made in 2007 whereas the project was implemented at the end of 2015. In addition, the modifications were made also due to reduction policy from ITTO in 2016 so that many component of the activities had to be adjusted. The last modification was made because the duration of the project was extended without additional ITTO funds. Comparison between original budget and modification budget (I – V) for all components can be seen as the table 3 at below :

Table 3. Budget Modification of Each Component

Budget Components		Original	Modif I	Modif II	Modif III	Modif IV	Modif V
1	Project Personnel	138,000.00	155,416.00	147,616.00	128,171.30	123,090.65	128,190.00
2	Sub Contract	-	-	-	-	-	-
3	Duty Travel	44,450.00	42,050.00	42,050.00	46,913.74	47,413.74	46,100.00
4	Capital Items	21,000.00	22,000.00	29,800.00	34,642.64	34,642.64	31,217.09
5	Consumable Items	44,250.00	33,551.00	33,551.00	17,443.16	17,443.16	15,750.26
6	Miscellaneous	27,500.00	22,183.00	22,183.00	28,509.16	33,089.81	34,422.65
7	Executing Agency Management Cost	-	-	-	-	-	-
Component total		275,200.00	275,200.00	275,200.00	255,680.00	255,680.00	255,680.00

The budget implementation of the activities can be seen on the table 4 at below:

Table 4. Budget Implementation of the Activities

Outputs/Activities	Budget (US Dollar)		
	Original	Revised	Realized
Output 1.1. Seed sources of selected species identified and their suitable technology developed.			
Activity 1.1.1. Identification of seed sources for 2 selected indigenous species (<i>Azadirachta excelsa</i> and <i>Durio spp</i>)	25,600.00	500.00	500.00
Activity 1.1.2. Development of propagation and plantation techniques for the selected species.	19,850.00	9,755.65	9,755.65

Outputs/Activities	Budget (US Dollar)		
	Original	Revised	Realized
Output 1.2. Technical guidelines for plantation technology of selected species developed and disseminated			
Activity 1.2.1. Preparation and development of technical guidelines on seed handling and planting for the species.	5,100.00	4,150.00	4,150.00
Activity 1.2.2. Workshop on plantation technologies of the selected species.	13,500.00	2,800.00	2,800.00
Output 2.1. High quality planting materials produced and distributed			
Activity 2.1.1. Improve nursery technology to produce and distribute planting materials.	24,500.00	9,774.35	9,774.35
Activity 2.1.2. Distribute high quality planting materials to participating communities.	12,800.00	8,300.00	8,300.00
Output 2.2. Community-forestry plantation model developed			
Activity 2.2.1. Review and refine the existing community forestry plantation model	8,000.00	3,550.00	3,550.00
Activity 2.2.2. Develop and establish plantation model in 2 districts.	35,850.00	25,750.77	25,533.94
Non-Activity based expenses	130,000.00	191,099.23	187,531.05

In accordance with the project agreement, the budget disbursement divided into 6 (six) phases, namely: Installment I as much as USD 80,000; installment II as much as USD 60,480; installment III, IV & V respectively amount to USD 30,000; and installment VI as much as USD 25,200. Budget recapitulation can be seen on the **Table 5** below:

Table 5. Budget Recapitulation

No.	Description	Total Budget (A)	Expenditure (B)	Remaining (A-B)
1.	Total Installment	255,680.00		
2.	Expenditures		251,894.99	
3.	Cost of Bank Administration		108.21.00	
Total Remaining Budget (refund to ITTO)				3,676.80

In the end of project, there was still an unspent budget amount USD 3,676.80 from all components which had been returned to ITTO Secretariat's account. The financial report has been audited by an independent auditor up to end period in January 2019. The detail of project financial statement and cash flow of ITTO fund can be seen as attached in **Annex 1 and 2**.

During the project period, there was also capital items purchasing such as equipment and machinery (include vehicle) were utilized to support the achievement of project's targets and goals. As for the detail list of these capital items as attached in **Annex 3**.

IV. Project Outcome and Target Beneficiaries Involvement

4.1. Specific Objective Achievements

As explained in the previous chapters, the project has 2 specific objectives namely (1) to implement appropriate technology for the production of qualified planting materials from prospective local species commodities and (2) to improve stakeholder involvement and the welfare of community through the success of forest and land rehabilitation and local prospective commodities plantation

Considering the outputs generated from the project, the first objective has been achieved. The indicator of this specific objective achievement was that Kayu Bawang and Bentara Durian seedlings have been produced and cultivated. Kayu Bawang seedlings derived through identification and selection techniques on qualified seed source. Meanwhile, Bentara Durian seedlings produced from the vegetative method on the superior variety of mother tree. The second objective on the improvement of community welfare will only be assessed its impacts after several years of post-project implementation. Ideally, post project evaluation could be undertaken after 3 years.

In term of Forest and Land Rehabilitation, the activity implementation has represented attempts to restore and improve the forest and land functions. But, further research is still needed to evaluate whether forest and land have returned to their original functions or not. Moreover, this activity was solely carried out in the model scale.

4.2. Project Implementation and Target Beneficiaries

Output 1.1. Seed sources of selected species identified and their suitable technology developed

Seed sources for prospective commodities have been identified within the provincial areas. One of the selected species (Kayu Bawang) flowers and produces fruits/seed annually and therefore will be available for their technology development. The technology to be developed for the selected species include seed handling technology, propagation and plantation technology initiated with the compiling of the existing technique commonly used. Then the most appropriate technique of handling, propagation and plantation will be further developed. Whereas, the propagation technique for Bentara Durian is use vegetative techniques through the use of buds.

The output has been completed in 2016. There were two activities in this output, namely:

a) Activity 1.1.1. Identification of seed sources for 2 selected indigenous species (*Azadirachta excelsa* and *Durio spp*)

The identification of single mother tree (seed source) of Durian Bentara (*Durio spp*) has been done. The appointment as mother tree by the Ministry of Agriculture by issuing Ministerial Decree No. 493 / Kpts / SR.120 / 12/2005 of 26 December 2005 on the Release of Durian Bentara as Main Variety.

Registration of Variety of Durian Bentara was carried out by the Head of Center for Plant Variety Protection and Agricultural Licensing (Ministry of Agriculture) based on proposal of Bengkulu Governor with Registration Number: 001 / PVL / 2006 dated 21 July 2006.

The mother tree belongs to Mr. Sutarkam located in Batu Layang Village, Hulu Palik Sub district, North Bengkulu District, Bengkulu Province with coordinate: 03° 28 ' 23.7" SL and 102° 18'

37.6" EL, in the height of 356 m asl.



Figure 1. (from left to right): (a) Habitus of Bentara Durian Mother Tree, (b) Mr. Sutarkam, the owner of mother tree, and (c) Bentara Durian fruit

The seed source of Kayu Bawang (*Azadirachta excelsa*) belongs to Mr. Sanusi and has been appointed as "Identified Seed Stand" class. The appointment is based on certification of seed source issued by Head of BPTH Region I No: 001 / BPTH.I-3 / SSB / 2016 dated May 18, 2016. The source of the seed was named "Kayu Bawang Penyangkak", located in Sub District Kerkap, North Bengkulu District, Bengkulu Province. The total area is about 0.75 ha, in coordinates: $03^{\circ} 31' 51.4''$ SL and $102^{\circ} 15' 12.3''$ EL, in the height of 129 m asl.



Figure 2. (a) Seed Source of "Kayu Bawang Penyangkak" and (b) Habitus of Kayu Bawang tree

b) Activity 1.1.2. Development of propagation and plantation techniques for the selected species

The Training of Trainers (TOT) on Propagation Technique of Bentara Durian and Kayu Bawang has been implemented by the project on 29 May to 2 June 2016. The participants come from 4 (four) technicians specifically PMU, 6 members of farmer group and 1 extension agent from Forestry and Plantation Service of North Bengkulu District as additional participants. The selected TOT material is conducted the propagation practice of horticultural crops and forest plants species.



Figure 3. Participants of TOT on Propagation Technique of Bentara Durian and Kayu Bawang

The procedure of Kayu Bawang and Bentara Durian planting was not delivered in the training, but through direct practice when the participants develop model in their each areas.

Output 1.1. (Seed sources of selected species identified and their suitable technology developed) supposed to overcome problems on the species selection, the seed/seedlings source production and the obstacle of its propagation technology. The criteria of the prospective local plants must be in the form of timber forestry plants even native or exotic species that popular among community in Bengkulu and superior species in the form of sap wood products as well as could produce high economic value fruits. Various promotion local plants in this project are Kayu Bawang (*Azadirachta excelsa* (Jack) M. Jacobs), Bambang Lanang (*Michelia valutida*), Bengkulu Mango (*Mangifera* sp), Bentara Durian (*Durio zibethinus*) and Bengkulu Petai (*Parkia* sp). Based on discussion with local community and related parties, Kayu Bawang and Bentara Durian were selected as promotion of prospective local plants because these plants also compatible to the feature in the site location of Forest and Land Rehabilitation.

Output 1.2. Technical guidelines for handling the selected species developed and disseminated

In order to make the useful technology, the technical guidelines were produced using the simplest pattern and Indonesian language. The technical guideline consists of seed handling, propagation and plantation techniques.

There were two activities in this output, namely:

Activity 1.2.1. Preparation and development of technical guidelines on seed handling and planting for the species

Through Activity 1.2.1. ITTO has been prepared 2 (two) manuals entitled Technical Guideline on Seed Handling and Planting of Kayu Bawang as well as the Guideline of Propagation and Maintenance of Bentara Durian.



Figure 4. Two Technical Guidelines produced by the Project

Activity 1.2.2. Workshop on plantation technologies of the selected species

ITTO also has been conducted Social Forestry Development Workshop on Plantation Development Model (demplot) of Kayu Bawang and Bentara Durian. The workshop was held on 9 August 2016 with total of 52 participants consisted of representatives from central, provincial, district, sub-district, and village governments, universities and non-government authorities.

In the workshop, it was also agreed to ratify the Tehnical Design of the Development of Community-Model Plantation Forest in the location of North Bengkulu and Seluma Districts.



Figure 5. Workshop on the Plantation Technologies of the Selected Species

Furthermore, to improve community understanding and expertise on the seedlings propagation and planting techniques, the beneficiaries/ trainees were also provided with technical guideline on propagation and planting techniques for both of prospective local plants (Kayu Bawang and Bentara Durian). This guideline was arranged by involving experts from local universities who have competency in handling Kayu Bawang and Bentara Durian. Dissemination of technical guideline was carried out through project activity meetings and during field visits by the project implementers.

Output 2.1. High quality planting materials for plantation produced and distributed

A number of high quality planting materials have been produced for the establishment of plantation model in two different districts, namely North Bengkulu and Seluma. The plantation models in each district were 2 - 5 ha using major species (local prospective commodities). High quality planting materials will be produced to support plantation activities carried out by local communities in their own land. The choice for site location involved relevant stakeholders.

Activity 2.1.1. Improve nursery technology to produce and distribute planting materials

Through the activity of 2.1.1. Improve nursery technology to produce and distribute planting materials, the production of seedlings activity are Kayu Bawang and Bentara Durian. The seedling of Kayu Bawang comes from identified and appointed seed source and its seedlings production was done by each group in the near of demplot location. This Kayu Bawang's seedling production is intended to produce quality seed as the origin of the mother tree.

Whereas for Bentara Durian, seedlings production through 2 categories namely White Lable (it was prepared to be mother tree and fruits producer) and Blue Lable (it was prepared to be fruits producer) because of its material limitation of buds and considering the high risk of its

mortality so that Bentara Durian production still in collaboration with the expert of seed breeders.

Based on the consideration of the lot of Bentara durian buds necessary and the ease of its accessibility, the project also developed a "Buds Orchard" as a garden for producing durian buds in the North Bengkulu District as many as 55 stems. Another consideration is to optimize the results of the training that has been carried out by TOT cadres.

Activity of 2.1.2. Distribute high quality planting materials to participating communities

Furthermore, through the Activity of 2.1.2. Distribute high quality planting materials to participating communities, Kayu Bawang and Bentara Durian seedlings which are produced from the nursery have been distributed. The main objective of the distribution is to fulfill the construction need of demonstration plot while the remain seedlings are distributed to the community around the demplot location.



Figure 6. The Nursery of Kayu Bawang developed by Farmers Group

In regards to the supply and distribution of two seedling commodities, Kayu Bawang and Bentara Durian, there are interesting facts and tend to contradictory to be highlighted. Kayu Bawang productions have been relatively stepping well but facing low demand from community and limited to the certain areas only. Furthermore the Environment and Forestry Service of Bengkulu Province (Dinas LHK) has implemented Kayu Bawang seedling production independently and distributed directly to the community.

In the other hand Bentara Durian seedling has encountered lack supply and relatively difficult to obtain, nevertheless public demands for this seedling is relatively high. Another obstacle is the characteristic of the seedling that susceptible to the fungus when it will be planted on the field.

The production and distribution activities of the seedling are desired to yield 10.000 seedlings of Kayu Bawang and Bentara Durian. However, in the realization as many as 15.442 seedlings of Kayu Bawang and Bentara Durian has been achieved with the detail as presented at the chart at below (Figure 7).

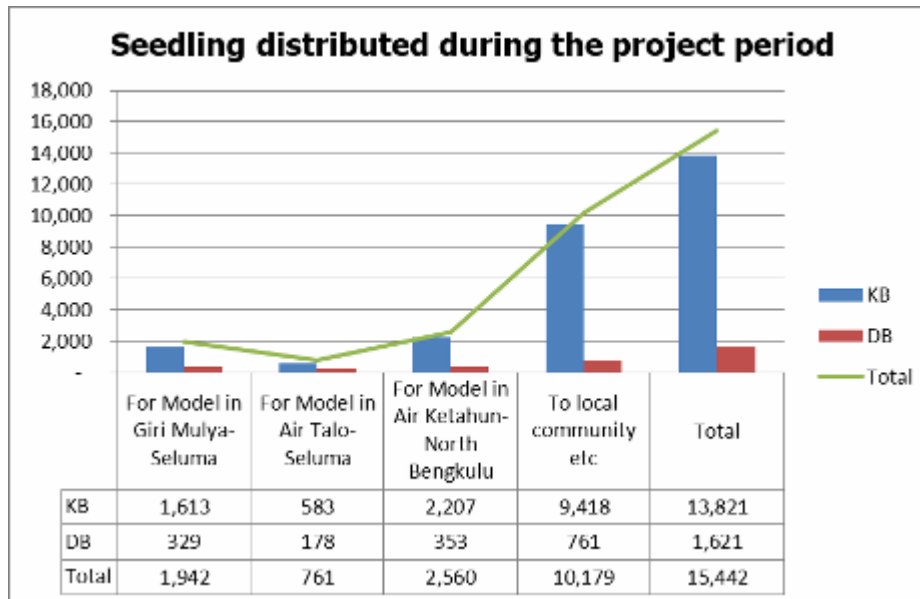


Figure 7. Graphic of Seedling Distribution

The seedlings distribution activity to the community obtained well support by Watershed and Protected Forest Management Agency of Ketahun (it is one of the technical implementation Units under MoEF). The agency also participated in the productive seedlings distribution to the ITTO's farmer group in Seluma District. The seedlings delivered were 370 stems which consisted most of fruit plants species.



Figure 8. Seedling distributed to farmer groups

Output 2.2. Community - forestry plantation model developed

To achieve this output is needed a diagnostic process and followed by design the most acceptable model by community and select the most appropriate method of delivery of the model. At the diagnostic process, the project has been hold a workshop by inviting relevant stakeholder and local communities to share information, experience and discuss on previous lesson learned. National guideline and concepts by Ministry of Forestry will still be an important part and therefore it is used as a reference guide.

Community-forestry plantation model has been developed using the high quality planting materials as produced in the Output 2.1. Method of plantation was also determined based on the recommendation of the workshop or stakeholder consultation, by considering the cost, the easiness in the execution and the impact to local community prosperity and environment.

Activity 2.2.1. Review and refine the existing community forestry plantation model

The activity has been completed in 2016. The initial stage of this activity was collecting basic data through the Vegetation inventory and the Community Socio-Economic inventory in the two districts. After the inventory activity, the determination and measurement of the location of the model were conducted. One of its products was the technical design of model. In relation to demplot activities, it is necessary to consider the sustainability of management for the future. Farmer groups are expected to play a role as land manager. Therefore it is necessary to formulate the most appropriate land management mechanism and management sharing system with government. This is important to maintain the management sustainability after the project is terminated.

Activity 2.2.2. Develop and establish model in 2 districts

It has been done at the end of 2016. However, maintenance activities still need to be implemented, especially replanting. With remote location conditions and low accessibility, the mortality rate of seedlings is relatively high, especially from wild boar threatens, pests and diseases. Continuing maintenance and security are priority.

In relation to the model development, the necessary things to be highlighted are the issues on successful rate likewise participation of the surrounding community. The result of the 3 models that built in the 2 districts has low plant growth rate due to the severe land condition (the weeds grow rapidly) and excessive wild boar pest. Other than that, inaccessible of the location makes controlling activity obstructed. For the detail of plant growth rate in each location up to November 2018, can be seen at the **Table 6** at below:

Table 6. The number of living plants in each model location

No	Location	Area (ha)	The amount of living plants (Nov 2018)			
			Kayu Bawang		Durian	
			Number (pc)	%	Number (pc)	%
1	Giri Mulya Village's land, Seluma	3	746	79	146	99
2	LPF Air Talo - Seluma and Protection FMU of Seluma	2	333	68	12	8
3	Limas Jaya Village, LPF Air Ketahun and Production FMU of North Bengkulu	5	1,440	78	220	80

Table 6 described that the percentage of Kayu Bawang growth rate relatively better than Bentara Durian growth rate. It is caused by major failure at the beginning of Bentara Durian planting. It was occurred especially in Seluma District with more than 90% of prospective plants dead destroyed by wild boar. The circumstances of model location in North Bengkulu District relatively secure because of related parties (Production FMU of North Bengkulu) initiative to build individual fence for every durian seedling. Eventhough the mortality rate was quite high and considering the limitation of seedling supply, the replanting of Bentara Durian in the demonstration plot location of forest area in Seluma (about of 2 Ha) was not implemented optimally. Another obstacle is the rapid growth of reeds around the location. If not intensively maintained, within one month the surface of the location will be covered by reeds.

In the side of community participation, the location in Seluma has more active participation than North Bengkulu District. This is due to the land management in North Bengkulu is fully under FMU, while the community just having role as a labor. Whereas in Seluma, location management is entirely carried out by farmer group.

From the above explanation, it indicates that outputs achievement have addressed several causes behind the execution of this project. The need of qualified prospective local plants seedlings has been fully achieved through the facilitation of seed and or seedlings source provisions and propagation technology as well as its planting. It is outright increase understanding of the community and related stakeholders on determination of species plant and its planting pattern.

However, the critical point of the project in the process achieving these outputs was the lack of capacity of community and related stakeholders. Not all of them have a good sensibility and response with the project activities. For example, only a few trained people had applied the result of the training on their hometown location. Even some of the participants, especially the community, were not involved actively for the maintenance activity in the demonstration plot.

Changes in the FMU structure that are now under the Provincial Government (after the implementation of Law Number 23) also affect. Some FMU officers who have been actively involved in project activities have slightly reduced their participation due to changes in the delegation's task policy by management.

On top of that, community and related parties were directed to have an active role in the planning of plant models development for Kayu Bawang and Bentara Durian. The community and parties referred to mention above are residents of Giri Mulya village, Ulu Talo Sub-District, Seluma District and staffs from Protection FMU of Seluma Districts and Production FMU of North Bengkulu District. Through workshops organized by the project, both villagers and FMU officers were actively involved in planning activity of plant models. Residents of Giri Mulya Village participated in the planning model of 3-hectare area on the village's land. Nevertheless, Protection FMU of Seluma District and Production FMU of North Bengkulu District have planned demonstration plots location respectively area covering of 2 ha and 5 ha. The model which managed by FMU, in its application was expected to continue optimize participation of the surrounding community.

For the record, after the implementation of Law 23 of 2014 concerning Regional Government, the management of forest areas is the authority of the Provincial Government. Districts no longer have authority. KPH becomes the Regional Technical Implementation Unit under the Provincial Government.

4.3. Existing situation at project completion as compare to the pre-project situation

The results of the project compared to the pre-project situation are shown and explained at the following **Table 7**:

Table 7. Project's objectives and outputs achievement

Objective, Output, and Related Activities	Indicators (Project Document)	Achievement
<p>Development Objective: To contribute to sustainable forest management in Bengkulu provincial forest through rehabilitation and community prosperity improvement by utilizing local prospective commodities</p>	<ul style="list-style-type: none"> • Planting program in the Province continues taking place involving local community • Local community prosperity continues improving from plantation of forestry species, especially in two districts. 	<ul style="list-style-type: none"> • The role of farmer group involvement as cultivator increasing which initially only served as laborers to partner together with the land owner. • The community welfare from local prospective plants utilization still can't be described.
<p>Specific objective 1. To implement suitable technology for production of high quality planting materials for valuable indigenous species with community participation.</p>	<ul style="list-style-type: none"> • Seed sources for 2 indigenous species identified for continues production of seeds and seedlings • Technology for production of planting materials developed 	<ul style="list-style-type: none"> • 2 species of prospective local plants commodities have been determined, namely: Kayu Bawang and Bentara Durian as material plant producers.
<p>Specific objective 2. To improve community development for successful reforestation and rehabilitation program.</p>	<ul style="list-style-type: none"> • Local community in 2 districts involves in plantation program • Plantation model trials in 2 districts established. 	<ul style="list-style-type: none"> • The technology in the form of Kayu Bawang seed utilization that comes from qualified seed source. • Budding technology application to obtain Bentara Durian seedling • Local community involved actively and got learning in the planting activity. • Plant model has been developed in the 3 location in Seluma and North Bengkulu Districts.
<p>Output 1.1. Seed sources of selected species identified and their suitable technology developed</p>	<ul style="list-style-type: none"> • 2 seed sources of indigenous species identified • Propagation technique of 2 selected species developed. • Plantation technique of 2 indigenous species improved. 	<ul style="list-style-type: none"> • Kayu Bawang and Bentara Durian have appointed as local prospective plant commodities for the project's activity. • The propagation technology in the form of budding and seed utilization from seed source location has been developed. • The techniques of planting for both local prospective plants have been made including combinations planting both of them in the

Objective, Output, and Related Activities	Indicators (Project Document)	Achievement
		field.
Output 1.2. Technical guidelines for plantation of selected species developed and disseminated	<ul style="list-style-type: none"> • 30-40 participants take part in the workshop • 2 Technical guidelines for plantation of indigenous species developed • Guidelines for propagation technique formulated. 	<ul style="list-style-type: none"> • 52 participants joined actively in the workshop • The guideline of propagation and cultivation techniques of Kayu Bawang and Bentara Durian has been made.
Output 2.1. High quality planting materials produced and distributed	<ul style="list-style-type: none"> • Nursery facilities upgrade • 10.000 planting materials are available to be distributed to local communities in 2 district 	<ul style="list-style-type: none"> • Permanent facilities in the nursery (North Bengkulu) have been upgraded as self-management to support follow-up to the project activities result. • 15.422 seedlings of Kayu Bawang and Bentara Durian have been produced and distributed to the 2 districts for local community.
Output 2.2. Community-forestry plantation model developed	<ul style="list-style-type: none"> • 3-4 community villages for each district involve in the activity • Workshop on Community-Forestry Model organized • 1 Community-Forestry Model adopted in 2 districts • Increased community awareness and participation in tree planting program 	<ul style="list-style-type: none"> • At least 1 community group involved directly in the project activities considering the maximum area of model is 5 Ha. Meanwhile, other group member participated in the training. • Workshop has good result and the community agreed to implement model development. • 2 models have been made in Seluma District, each area is 2 and 3 Ha whereas only 1 model built in North Bengkulu with area of 5 Ha. • Community awareness to plant increased, especially species of fruit-producing plants.

The project also organized meetings (beyond project output-based activities) in regional, national and international levels including presentation of the project activities at seminar as shown at the **Table 8** at below:

Table 8. Project's meetings

No.	Title of Activities	Date and Location	Remarks
1.	Thematic Training on Forest Tree Seed for Farmers Groups Target of ITTO PD 477/07 Rev. 4 (F)	16 – 18 May 2017 North Bengkulu District, Bengkulu Province	Evaluation and refreshment toward results of the previous TOT in 2016

No.	Title of Activities	Date and Location	Remarks
2.	Workshop on ITTO PD 477/07 Rev. 4 (F) Project Activities (Regional Level)	28 December 2017 Bengkulu, Bengkulu Province	Presented results of the field project activities and follow-up Discussion
3.	The 1 st International Symposium on Tropical Forestry and Environmental Sciences (ISTFES 2018)	3 – 4 October 2018 Samarinda, East Kalimantan Province	Delivered the results of the project report as information material for the other parties.

4.4. Project Sustainability

Approaching the end of the project, the issue on who will be responsible for continuing the activity process after the project will emerge. In administrative, regional stakeholder usually going to requisition of the activity responsibility, including allocate the activity budget if needed. The ITTO project PD 477/70 Rev. 4 (F), its regional stakeholder is Province Government of Bengkulu and in this case is Environment and Forestry Service Office of Bengkulu Province.

In relation to this condition, PTC-V that was conducted in Jakarta dated 11 October 2018 has generated several important recommendation on exit strategy, namely are as follows:

- The Local Government involvement has needed of optimized to maintain the sustainability and welfare of local farmers.
- In accordance to the prospective commodities, could be followed up by considering its downstream aspect to develop of the business and marketplace (through the local government involvement) on the commodities development, including the supply guarantee of commodities raw material (Kayu Bawang and Bentara Durian)
- It should be prepared the initiative on the relevant regulation formation to ensure the sustainability of project activities after completion.
- The roles and responsibilities by related parties as well as its budgeting must be elaborated after project completion. Social Forestry scheme through partnership and maintenance facilitation from Regional Watershed Management and Protected Forest (BPDASHL) of Ketahun could be as alternatives to manage demplot location inside of forest area and through Special Allocation Fund (DAK) for demplot outside of forest area.
- It was noted that Forestry Office of Bengkulu Province was proposed to the governor regulation proposal to adjust the partnership and allocation of Locally-generated Revenue (PAD) for demplot location management inside of forest area.
- In accordance to the Buds Orchard, Head of KPHP North Bengkulu has agreed to carry out Buds Orchard maintenance activity for 2019 and 2020, including the activity of Durian Bentara buds collection.
- The Regional of Forest Tree Seed Agency, a technical unit under Forestry Office of Bengkulu Province has been appointed to conduct monitoring of Kayu Bawang seed sources management.

Furthermore, the PTC meeting also produced task and responsibility distribution of related parties to following-up post-project activities management as mandate which described to the following **Table 9** at below:

Table 9. Task & Responsibility for Post-Project Activities

No.	Output	Physical	Responsible person (PIC)	Remarks
1.	Output 1.1.: Seed sources of selected species identified and their suitable technology developed	Seed Source of Kayu Bawang located in Penyangkak Village, North Bengkulu District, certified by BPTH Regional Sumatera	UPTD BPTH under Environment and Forestry Service of Bengkulu Province	Supervision on seed source management
2.	Output 2.1.: High quality planting materials for plantation produced and distributed	Buds Orchard (Kebun Entres) located in North Bengkulu Office yard, belongs to KPHP North Bengkulu	KPHP North Bengkulu	Plantation Maintenance
3.	Output 2.2.: Community-forestry plantation model involving relevant stakeholders developed	<ul style="list-style-type: none"> Demonstration Plots in forest area; Seluma District (2 ha) and North Bengkulu District (5 ha) 	Environment and Forestry Service of Bengkulu Province	Facilitation on Partnership Program (preparation on local regulation)
		<ul style="list-style-type: none"> Demonstration Plots in not-forest area; Seluma District (3 ha) 	Environment and Forestry Service of Bengkulu Province	Facilitation in plant maintenance through Special Allocation Fund (DAK)
		<ul style="list-style-type: none"> 2 Farmer Groups in Seluma District and North Bengkulu District 	Environment and Forestry Service of Bengkulu Province	Facilitation in Capacity Building through Extension Agency Fund

V. Assessment and Analysis

This chapter explains the main result of the internal evaluation that was conducted by Executing Agency (EA) together with related stakeholders before the project ended. This chapter also analyzes on retrospection and actual performance (part 3) and the result (part 4), the adequacy of the project identification process, quality of the project design including strategy of the project and existing & planned resources, as well as assumption and risk explanation. This part will give basic information to identify lesson learned which is presented in the Part 6.

5.1. Project Rationale and Identification Process

The issues on degradation forest and difficulty of the rehabilitation process have getting worse year to year. Although the initial proposal of this project was submitted in 2007, its problems background evidently still relevant after 10 years when the project executed in 2016.

In principal, the government has organized all related matters to the forest and land rehabilitation issues. Forest and Land Rehabilitation (FLR) is an effort to restore, preserve and improve of the forest and land functions so that its carrying capacity, productivity and role on supporting life buffering system are keep maintained.

Rehabilitation activity aims to restore forest function to its original function, for example: damaged forest as much as possible is returned to its original function as a buffer for water management. Thus, the requirement of the types of plants used for rehabilitation must meet the buffer rules/ principles to support the water system function.

The existence of community interaction with forest area does not mean it can cause changes in the forest functions. Community requires a land to be managed at least for their livelihood. There are several government policies which allow community to access or interact with forest area continuously, e.g. arrange the pattern of forest land management involving community through agroforestry activity. In agroforestry, government able to have direct discussion with community to select local prospective plants species which matching to forest function managed. In this context, the government through related parties such as FMU and Forestry Office can conducting a campaign on quality seed utilization to the community surrounding forest.

The project has identified causes the low succes rate on rehabilitation in the forest location where the community interact with. Low rate of growth plant is due to the low participation from community in following-up the plant maintenance in the field. At the economic side, the communities have presumptions that rehabilitation cannot provide benefits and rehabilitation plant will disrupts their farming activities. Accordingly, the use of prospective local plant and setting of planting pattern expected to be solution so that the community will participate actively for the successful of rehabilitation in the field.

5.2. The problems addressed, project design and implementation strategy

ITTO collaborates with the Ministry of Environment and Forestry (MoEF) (c.q. Directorate of Forest Tree Seed under the Directorate General (DG) of Watershed and Protection Forest Management) and Environment and Forestry Services of Bengkulu Province have formulated the issues on the FLR activity (usually involves local community and related parties), namely: (1) lack contribution of the prospective local plants on improving community welfare and (2) low

participation, capacity and awareness of the community as well as related parties in the FLR activity itself. This is not different as stated by Nawir et.al. (2008) that the success of rehabilitation project is generally characterized by active involvement of local communities as well as technical interventions that specifically to address the ecology causes of forest degradation which have caused various problems regarding the use of forest resources for local community.

In the further observation, the first issue in the above was due to three (3) things that are deficiency seed/seedlings sources production, lack of mastery on the propagation technology as well as technology on seedling planting. While the causes of the second issue are also due to 3 things, specifically: imprecise selection of the species and planting pattern, low understanding and less expertise on the propagation and planting of prospective local plants, as well as low awareness of local community in the FLR activity.

Refers to the identification process that has been conducted, the project must emphasize the following several things:

1. It is urgent to enhance the success of forest and land rehabilitation in Bengkulu.
2. The preferences of species should be adapted locally species and having high economic potential, especially to local communities.
3. The project intervention is necessary and should focus on the development of propagation technology and its application in the field plantation.
4. The project should involve local community around the forest areas.

By considering all the matters that mentioned above, so that strategic plans that have been held are as follows:

- 1) Conduct identification, description and certification of the seed source candidates from existing potential species and has adapted locally to produce seed and seedling. The presence of those potential species has encouraged community to participate actively in the rehabilitation activity.
- 2) Conduct consultation to related stakeholders and participative discussion involved local community and relevant stakeholder in the selection of species and demonstration plot location for planting model establishment. Through many consultations, both local stakeholder and community could comprehend the purpose of the planting model establishment so that one another will get benefit from this model management.
- 3) Conduct development of the propagation technology (plant material) and planting (model) through cooperation with related institution. Community obtain quality seed and seedling to be planted and maintained in their land managed.
- 4) Conduct workshop, training or forestry counseling to improve institutional capacity, community awareness and coordination of integrated forest management in Bengkulu Province. Local community and stakeholder expected to be able to produce quality seed and seedlings as well as comprehend and arrange its planting pattern independently after participated in the training from the expert.

5.3. Critical differences between planned and actual implementation

Based on previous explanations, it has indicated that outputs achievement have addressed several problem cause behind the execution of this project. The need of qualified prospective local plants seedlings has been fully achieved through the facilitation of seed and or seedlings source provisions and propagation technology as well as its planting. It had outright increase

understanding of the community and related stakeholders on determination of species plant and its planting pattern.

However, the critical point of the project in the process achieving these outputs was the lack of capacity of community and related stakeholders. Not all of them have a good sensibility and response with the project activities. For example, only a few trained people had applied the result of the training on their hometown location. Even some of the participants, especially the community, were not involved actively for the maintenance activity in the demonstration plot.

The participation of community should have upgraded refers to the result of plant evaluation that the percentage of survived plant was promising in the model location of North Bengkulu (see Table 6). But, this is not portraying the presence of community participation in the maintenance. Involvement and initiative of the surrounding community in the maintenance process were still lacking. Most of the activities were managed by Production FMU of North Bengkulu with embraced the local labor of plantation around model location. Initially, low participation of community was happened in the village's land of Seluma. Then it was increased as the forestry extension of Protection FMU of Seluma was joined in this activity. The participation of community was begun to exist along with the second year of plants maintenance. This cannot be separated from the direction and facilitation of the Extension Center (MoEF) and Environment and Forestry Service of Bengkulu Province in the form of strengthening farmer group institutions

In general, a regional stakeholder that is FMU had greater role on the development and maintenance of model located in forest area. This is because of tenure problem and authority occurred in managing forest area. The community only acts as a laborer and the plan on facilitation of social forestry by maximize the role of community has not seen yet. While in village's land, the management by farmer group had conducted well under Head of Village supervision. The main problem in this activity was difficulty of access to the demonstration plot location (in spite of accessed by axle vehicle) and it has an impact on the lack of intensive control of the location.

Changes in the FMU structure that are now under the Provincial Government (formerly under district government) are very influential. Some FMU officers who have been actively involved in project activities have slightly reduced their participation due to changes in the delegation's task policy by management.

The many changes in personnel due to the implementation of the Law influence coordination activities in the field. It is because there was no transfer knowledge between the former and successor personnel. This impact felt in terms of administration and technical transfer in the field. However, it can be solved after the personnel being appointed from Environment and Forestry Service as a focal point. Environment and Forestry Service of Bengkulu Province has function as a coordinator of province government to manage the project activities.

5.4. Adequacy of project inputs

As mentioned before that the total project budget is as much as USD 255,680 that divided to 6 (six) disbursements. Remaining of budget spent for activities is USD 3,676.80 that will be returned to ITTO. Thus, in the side of finance resource, the project input has adequated to meet the needs from the beginning till the end of the project. Nevertheless, in the project implementation has experienced several modification

Likewise with the personnel, knowledge and skill which are introduced in the project have experienced modification. National experts have performed the activities relatively well as planned.

Initial problems occurred exactly related to the mobilization support to the field on development and maintenance models. Conditions of model location such as in the remote area, poor access, etc. have become obstacle. Several times of field activities were postponed because of those conditions especially when rainy season.

Other than that, the problem on poor communication channel (cellular) in the field (farmer group) location causes delayed activities because of in the beginning the community worked passively and still need intensive mentoring and detail advice. One of the consequences of its lack communication is wild boar attack to durian plants and this condition would not occurred if the community took initiative fenced off the durian plants without waiting for direction from the experts or field coordinators.

5.5. External influences

The most influential external factor towards project implementation is the enactment of Law Number 23 Year 2014 concerning on Regional Government. Change in the FMU structure that is now under the Provincial Government (formerly under district government) very influential to the project. Some FMU officers who have been actively involved in project activities have slightly reduced their participation due to changes in the policy of task delegation by their management.

The modifications of personnel after the law applied also impact to the coordination activity in the field. Coordination steps became obstructed because there was no transfer information from the initial personnel to the successor personnel. Anyhow, those situations could be overcome after personnel appointment from Environment and Forestry Service Office (as focal point) serves as coordinator of province government to handle the project activity.

5.6. Project Beneficiaries

In relation to the implementation of the project strategy, so as the main beneficiaries from this activity are local community and manager area (FMU/ KPH). In the beginning of the activity, they were involved directly in the selection of prospective local plants species, training of propagation technique and planting. Hereafter, they also get involved in the workshop in order to the establishment of community-forest plantation model. The direct benefits were received are in the form of knowledge on plant propagation technology and produce qualified seedling of Kayu Bawang and Bentara Durian.

The other beneficiaries are universities, provincial and district government as well as related research institutions which were involved in supporting this activity. They can share knowledge on lesson learn to the local community and to anyone whom interested in the activities of the project.

The indirect benefits that can be achieved is income from the selling of Kayu Bawang products and Bentara Durian fruits if the model is maintained until the next few years.

5.7. Project Sustainability

The impacts of the project in connection with the forest and land rehabilitation are usually long-term. The impact, especially the economy, would be felt at least after 5-6 years. The project

outputs were accomplished through an adequate process involving the community and main stakeholders to participate and took an initiative on FLR activity by using promoted prospective local plants.

Regarding to the result of model activity as a pilot project, the project not only observed the wood potential, but also the potential of non-wood products from Bentara Durian. For example, through the continuous maintenance, it was estimated that Bentara Durian will produce fruits at the age of 6-7 years. Bentara Durian is a high quality variety of durian and combination of Kayu Bawang – Bentara Durian will benefit to the community.

The presence of Bentara Durian in the location model could be developed for other business opportunities. When Bentara Durian stands harvested, the model location and its surrounding can be developed into the adventure and nature tour packages combined with culinary tour of Bentara Durian. This is one of the project efforts to attract the community to be actively involved in the model offered.

5.8. The Institution Involved in Project Implementation

The project activity is carried out by the Directorate of Forest Tree Seed (PTH) as an Executing Agency in collaboration with Plantation and Forestry Service (now is the Environment and Forestry Service) of Bengkulu Province as a Collaborating Agency. The Directorate PTH responsible for the overall project management which in collaboration with the Environment and Forestry Service for the implementation of activities related to the technology development and seed source identification. This includes the formation of active communication with local community.

The Executing Agency has formed Project Steering Committee (PSC) which contains of ITTO representative, donor country representative, DG of Watershed and Protected Forest Management (WPFM), Forestry Office of Bengkulu Province and others related institution. The PSC chaired by DG of WPFM, Ministry of Environment and Forestry. There are several alterations in the member of PSC because of enactment of The Law No. 23 Year 2014 concerning Regional Government. This alteration includes nomenclature institution name and institution abolishment.

Under structure of PSC consists of Project Coordination, Field Coordinators, Project Secretary (and or Financial Staff/Treasurer), National Experts and Field Technicians. The project coordinator and secretary will be employed throughout the duration of the project, while the Field Coordinators, Experts and Field Technicians are employed based on their respective activities (activity-based).

VI. Lesson Learned

6.1. Lesson Learned from Project Identification, Design, and Implementation

Many unexpected cases occurred when the project activity was running from the beginning until the end of project, likewise design modifications also happening in several times. The dynamics or changes that were occurred become problems on technical and non-technical, managerial, as well as human resource problem.

Identification and Design

The obstacle of the time difference that is too far between aspect of identification, design and implementation sometimes cause those three aspects become irrelevant. However, in the context of FLR activity in Bengkulu Province, the problem behind the low rate of FLR success in the forest area where community interacted with is still relevant from year to year. The problem that arises precisely is related to the managerial, where area managers experienced many alterations with the implementation of the Law Number 23 Year 2014. The same problem has not been addressed yet but the responsible person for handling those problem always changes.

In the context of project which manages in small-scale (in terms of area), those problem may still can be overcome. However, if the process of the project is implemented to the larger scale activity, for example forest area management in the district level, the possibility of emerging problems will be more complex. Thus a policy from the district or even the provincial government is required to resolve and simplify the problems that arise.

In accordance to the mentioned above, the project has carried out dissemination activity in the province level on the result of activity and follow-up to the post-project. It is expected that other parties outside of the project could learn and discover the result of activity evaluation to minimize repetition of the same mistakes in the process of project implementation. In addition, the result of this project expected to be able to obtained policy protection so that can produce a kind of Standard Operational Procedure (SOP) if there is replication of the activities elsewhere.

Operational

The project actually had more technical activities in the field (Bengkulu Province) and the activity of management was controlled in Jakarta, it makes the risk of activity control was relatively difficult and spent high cost. But in the terms of supervision and control especially in financial was more effective. However, it would be more effective and efficient if at the beginning of the project, the field manager/coordinator was provided with the procedures on financial and administrative management.

Although the budget management of the project was based on previous expenditure budget plan, the dynamics in the field related to the changes of price and cost often lead to the budget modification.

In the short term, the reference of the success of this activity is the outputs achievement. The outputs of the project have fulfilled to the project indicators as planned and the process implementation of the project was conducting smoothly. For example, the problem on lack of material of Bentara Durian plants caused re-planting activity was delayed. Whereas for the long term, the participation of community had become critical point for the sustainability factor of post-project activities. The location inside of forest area is required clear rules regarding the right and obligation of the farmer group and area manager in connection with model asset that

will be managed. This can be an incentive for the participation rate of community if the regulation on the right and obligation is mutually beneficial for both parties.

VII. Conclusions and Recommendations

In general, the implementation of the project has been well implemented starting from the planning, coordination of the executing agency with related parties, implementation as well as management activities in the field.

From the aspect of the objectives of the activity, the specific objective of the project on the improvement of community welfare has not been fully assessed due to the short time of evaluation. In this case, the term of project implementation is only 3 (three) years. In relation with the FLR (Forest and Land Rehabilitation) activity achievement, it is still not showing satisfactory results on restoring and improving the forest and land functions. In more detail, regarding to the results of the project, it can be concluded as the following:

- The problems on the low rate of the success of FLR activity in Bengkulu that was involving community participation and other parties are as follows: 1) Lack of material of the prospective local plants, and 2) the low participation, local capacity, and awareness of the community and related parties in FLR activity. Based on the identification results, it was agreed on the following matters:
 1. It is urgent to enhance the success of forest and land rehabilitation in Bengkulu.
 2. The preferences of species should be adapted locally species and having high economic potential, especially to local communities.
 3. The project intervention is necessary and should focus on the development of propagation technology and its application in the field plantation.
 4. The project should involve local community around the forest areas.
- The project design has been explored and optimized with considering the result of the project identification by designing 4 (four) outputs.
- The implementation of the project has been conducted well as planned. From 8 (eight) planned activities, These have been fully completed by the project.
- In accordance to the continuity of the activity, in principal, the Forestry Office as Collaborating Agency and regional stakeholder in Bengkulu Province has committed to following-up the post-project activities (including its funding).

The project activity related on rehabilitation in the area where local community interacted with, it is commonly to replicated in the other different area. For the same regional (Bengkulu Province), it is possible that this activity can be applied in several districts with same characteristic of area and community. It has begun with dissemination activities in the province level, Bengkulu. Meanwhile, for the cross-province, the things that need to be considered are the conditions of the area, the types of introduced plants and the characteristic of the local community. Therefore, the different area/ region will need a different approach too.

Specific matters related to the model establishment can be recommended are as follows:

- Regarding to the result of model activity as a pilot, the project not only observed the wood potential, but also the potential of non-wood products from Bentara Durian. For example, through the continuous maintenance, it was estimated that Bentara Durian will produce fruits at the age of 6-7 years. Bentara Durian is a high quality variety of durian and combination of Kayu Bawang – Bentara Durian will benefit to the community.
- The presence of Bentara Durian in the location model could be developed for other business opportunities. When Bentara Durian stands harvested, the model location and its surrounding can be developed into the adventure and nature tour packages combined with

culinary tour of Bentara Durian. This is one of the project efforts to attract the community to be actively involved in the model offered.

Responsible for the Report

A handwritten signature in black ink, appearing to read 'Dwi Arianto H. D.', written in a cursive style.

Name: Dwi Arianto H. D

Position held: Project Manager

Date: March 2019

Annex 1. Project Financial Statement November 2015 – January 2019

PROJECT FINANCIAL STATEMENT (in US Dollar)

Project No. : ITTO PD 477/07 Rev. 4 (F)

Project Title : **Improving Forest Functions in Bengkulu Province Through Community Participation in Rehabilitation of Degraded Forest by Using Local Prospective Commodities**

Periode : November 2015 - January 2019

Component	Original Amount (A)	Revised Amount_5 (A4)	Expenditures To-date			Available Funds (E) (A4-D)
			Accrued (B)	Expended (C)	Total (D) (B+C)	
I. Expenditures						
10. Project Personnel						
11. National Expert	21,000.00	8,000.00	0.00	8,000.00	8,000.00	0.00
12. Technician	17,400.00	9,000.00	0.00	9,000.00	9,000.00	0.00
13. Project Coordinator	63,000.00	75,700.00	0.00	75,700.00	75,700.00	0.00
14. Secretary & Finance Adm	14,400.00	28,190.00	0.00	28,190.00	28,190.00	0.00
15. Field Coordinator	12,000.00	3,000.00	0.00	3,000.00	3,000.00	0.00
16. Labor	10,200.00	4,300.00	0.00	4,083.17	4,083.17	216.83
19. Component Total	138,000.00	128,190.00	0.00	127,973.17	127,973.17	216.83
20. Sub-contracts						
21. Sub-contract1	0.00	0.00	0.00	0.00	0.00	0.00
22. Sub-contract2	0.00	0.00	0.00	0.00	0.00	0.00
29. Component Total	0.00	0.00	0.00	0.00	0.00	0.00
30. Duty Travel						
31. Daily Subsistence Allowance	18,000.00	23,500.00	0.00	23,307.69	23,307.69	192.31
32. Return Ticket	7,950.00	12,400.00	0.00	12,400.00	12,400.00	0.00
33. Local Transport	13,500.00	10,200.00	0.00	10,200.00	10,200.00	0.00
34. International Travel	5,000.00	0.00	0.00	0.00	0.00	0.00
39. Component Total	44,450.00	46,100.00	0.00	45,907.69	45,907.69	192.31
40. Capital Items						
41. Capital Equipment	2,000.00	977.74	0.00	977.74	977.74	0.00
42. Computer	4,000.00	2,936.03	0.00	2,936.03	2,936.03	0.00
43. Office Space	0.00	0.00	0.00	0.00	0.00	0.00
44. Vehicle (small light truck)	15,000.00	27,303.32	0.00	27,303.32	27,303.32	0.00
49. Component Total	21,000.00	31,217.09	0.00	31,217.09	31,217.09	0.00
50. Consumable items						
51. Office Supplies	1,250.00	1,250.26	0.00	1,250.26	1,250.26	0.00
52. Fuel and Utilities	12,000.00	5,700.00	0.00	5,490.00	5,490.00	210.00
53. Consumable Items	27,000.00	3,800.00	0.00	2,977.76	2,977.76	822.24
52. Printing	4,000.00	5,000.00	0.00	4,042.96	4,042.96	957.04
59. Component Total	44,250.00	15,750.26	0.00	13,760.98	13,760.98	1,989.28
60. Miscellaneous						
61. Other Miscellaneous/PSC	23,000.00	29,755.91	0.00	28,369.32	28,369.32	1,386.59
62. Auditing	4,500.00	4,666.74	0.00	4,666.74	4,666.74	0.00
69. Component Total	27,500.00	34,422.65	0.00	33,036.06	33,036.06	1,386.59
70. Executing Agency Management Cost						
79. Component Total	0.00	0.00	0.00	0.00	0.00	0.00
Total expenditure to date	275,200.00	255,680.00	0.00	251,894.99	251,894.99	3,785.01
80. ITTO Monitoring, Evaluation, and Adm						
81. Monitoring and Review Costs	18,000.00	18,000.00				
82. Ex-post and mid term evaluation	20,000.00	20,000.00				
83. Programme Support Cost	25,056.00	25,056.00				
89. Component Total	63,056.00	63,056.00				
90. Return from Pre-Project	0.00	0.00				
GRAND TOTAL	338,256.00	318,736.00				
100. Bank						
101. Other (Bank Interest, Adm, etc)		26.72		134.93	134.93	(108.21)
103. Component Total		26.72		134.93	134.93	(108.21)
GRAND TOTAL						3,676.80

Annex 2. Project Cashflow Statement November 2015 – January 2019

PROJECT CASH FLOW STATEMENT

Project No. : ITTO PD 477/07 Rev. 4 (F)

Project Title : **Improving Forest Functions in Bengkulu Province Through Community Participation in Rehabilitation of Degraded Forest by Using Local Prospective Commodities**

Periode : November 2015 - January 2019

Component	Reference	Date	Jan-19	
			Amount	
			in US\$	Local Currency (Rp)
A. Funds received from ITTO:				
1. First instalment	BNI BANK	13-Nov-15	80,000.00	1,050,400,000.00
2. Second Instalment	BNI BANK	23-Mar-17	60,480.00	806,319,360.00
3. Third Instalment	BNI BANK	13-Oct-17	30,000.00	405,240,000.00
4. Fourth Instalment	BNI BANK	26-Jan-18	30,000.00	399,090,000.00
5. Fifth Instalment	BNI BANK	27-Jul-18	30,000.00	434,490,000.00
6. Sixth Instalment	BNI BANK	6-Dec-18	25,200.00	365,576,400.00
7. Other (from Bank BNI)			(108.21)	(1,482,249.42)
8. Gain or (losses) on Exchange Rates :			0.00	3,130,822.80
Total Funds Received:			255,571.79	3,462,764,333.38
B. Expenditures by Executing Agency:				
10. Project Personnel				
11. National Expert			8,000.00	106,485,200.00
12. Technician			9,000.00	122,270,000.00
13. Project Coordinator			75,700.00	1,033,878,900.00
14. Secretary & Finance Adm			28,190.00	383,301,450.00
15. Field Coordinator			3,000.00	41,610,700.00
16. Labor			4,083.17	55,261,250.00
19. Component Total			127,973.17	1,742,807,500.00
20. Sub-contracts				
21. Sub-contract -1			0.00	0.00
22. Sub-contract -2			0.00	0.00
29. Component Total:			0.00	0.00
30. Duty Travel				
31. Daily Subsistence Allowance			23,307.69	316,183,718.00
32. Return Ticket			12,400.00	169,887,657.00
33. Local Transport			10,200.00	137,980,410.00
34. International Travel			0.00	0.00
39. Component Total:			45,907.69	624,051,785.00
40. Capital Items				
41. Capital Equipment			977.74	12,949,000.00
42. Computer			2,936.03	38,550,000.00
43. Office Space			0.00	0.00
44. Vehicle (small light truck)			27,303.32	363,160,500.00
49. Component Total:			31,217.09	414,659,500.00
50. Consumable Items				
51. Office Supplies			1,250.26	16,564,990.00
52. Fuel and Utilities			5,490.00	74,080,365.50
53. Consumable Items			2,977.76	40,370,000.00
54. Printing			4,042.96	55,308,400.00
59. Component Total:			13,760.98	186,323,755.50
60. Miscellaneous				
61. Other miscellaneous/PSC			28,369.32	380,184,831.00
62. Auditing			4,666.74	62,988,900.00
69. Component Total:			33,036.06	443,173,731.00
70. Executing Agency Management cost				
79 Component Total				
80. ITTO Monitoring, Evaluation and Administration				
81. Monitoring and Review Costs				
82. Ex-post and mid term evaluation				
83. Programme Support Cost				
89 Component Total				
90. Refund from Pre-project				
Grand Total Expenditure to-date (budgeting)			251,894.99	3,411,016,271.50
Remaining Balance of Funds (A-B):			3,676.80	51,748,061.88

- Notes: (1) Amounts in U.S. dollars are converted using the average rate of exchange when funds were received by the
(2) Amount of expenditures in US dollar should be the same as amount shown in column (C) of the Financial Statement (exported with direct link from the Cash Flow Statement).
(3) Submit bank reconciliation statement along with the bank statements to support the remaining balances/funds in the Cash Flow Statement.

Annex 3. List of Inventory of Capital Item of ITTO PD 477/07 Rev. 4 (F) Purchased with ITTO Funds

NO.	ITEMS DESCRIPTION	QTY (UNIT)	DATE OF ACQUISITION	AMOUNT US \$	AMOUNT IDR	REMARKS
IN THE YEAR 2016						
Capital Equipment :						
1.	AC LG STD T09NLA, 0,5 PK	1	28/04/2016	327.42	4,299,000.00	Good
2.	Office Chair (Chair black)	2	28/04/2016	106.85	1,403,000.00	Good
3.	Folding Chair AMOS Blk, Amos ChairBLACK (F) 184753	3	28/04/2016	45.47	597,000.00	Good
				479.74	6,299,000.00	
Computer :						
1.	Projector EPSON EB-X300 (V11H717252) XGA, 2800 lumens	1	06/04/2016	430.31	5,650,000.00	Good
2.	Router Wireless TP-Link TL-WR84 IN	1	06/04/2016	26.66	350,000.00	Good
3.	HP Notebook 14-ac181TU, Intel Core 135005U	1	11/04/2016	411.27	5,400,000.00	Good
4.	HP Notebook 14-ac181TU, Intel Core 135005U	1	11/04/2016	411.27	5,400,000.00	Good
5.	Netbook ACER Aspire One 10- 5100X, Intel Quad Core22735F-133Ghz	1	11/04/2016	266.57	3,500,000.00	Good
6.	Printer HP P1102W (Laserjet) - VNF7 VO7201	1	11/04/2016	110.43	1,450,000.00	Good
7.	Printer Canon Pixma MXX-497 - KJPP 28382	1	11/04/2016	135.19	1,775,000.00	Good
8.	Harddisk External Seagate 1 TB SLIM - NA7WN103	1	11/04/2016	70.45	925,000.00	Good
9.	PC DELL Inspiron 3052 OIA (Pentium N3700) - 78G8772	1	16/06/2016	536.94	7,050,000.00	Good
10.	PC DELL Inspiron 3052 OIA (Pentium N3700) - 1GG8772	1	16/06/2016	536.94	7,050,000.00	Good
				2,936.03	38,550,000.00	
Total Year 2016				3,415.77	44,849,000.00	

ITEMS DESCRIPTION	QTY (UNIT)	DATE OF ACQUISITION	AMOUNT US \$	AMOUNT IDR	REMARKS
Capital Equipment :					
1 Camera NIKON J5 - KIT RSM SN 4357/0312	1	21/10/2017	498.00	6,650,000.00	Good
Vehicle (small light truck)					
1. Vehicle (small light truck) merk Mitsubishi Triton 2.5 L Dc Gls 4 x 4 M/T Assy year 2017	1	05/09/2017	27,303.32	363,160,500.00	Good
Total Year 2017			27,801.32	369,810,500.00	
Total Up to December 31, 2017	18		31,217.09	414,659,500.00	