

Training Needs Assessment for Participatory Establishment of Collaborative Sustainable Forest Management at Grand Forest Park Sultan Thaha Syaifuddin, Jambi

Technical Report No. 1

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Abstract

The training needs for villagers around Grand Forest Park Sultan Thaha Syaifuddin, Jambi were identified. There were sixteen training subjects, which were required by the villagers i.e. 1) Agroforestry, 2) Rehabilitation, 3)Restoration, 4)Dry Land Cultivation (dry paddy cultivation, subsidiary crop and horticulture), 5)Rubber cultivation, 6)Control of white root fungi disease and termite pest on rubber tree, 7)Control of boar, monkey, rats, and birds pests on paddy, subsidiary crop, and horticulture, 8)Cultivation of local potency plants (jelutung, durian and arenga), 9)Forest honey bee cultivation,10)Processing and marketing of bamboo handicrafts, 11)Post-harvest technology (for agriculture, plantations, forestry, horticulture, and subsidiary crop results), 12)Training on cooperation (koperasi), 13)Training on marketing (for agriculture, plantations, forestry, horticulture, and subsidiary crop results), 14)Rattan cultivation, processing, and marketing of processing-result, 15)Farmers groups institutions, and 16)Agribusiness analysis.

The desirable training duration by villagers were 3 – 6 days, while the training methods consist of one or more ways such as in-class activities, in the form of lectures, discussions, demonstrations, and practices, as well as outdoor activities at demonstration plot, discussion in the field, and comparative study

Key words: training need, training methods, villagers

Introduction

Background

Senami forest zone in Batang Hari District, Jambi Province is natural distribution area of important commercial plants, such as *bulian (Eusyderoxylon zwagerii)*, *meranti (Shorea spp.)*, rattan and many more. In the beginning the land-use type of Senami forest area is a limited production forest, with wood as its main product. Another forest product of this area is non-timber forest product, such as *jernang/red colored resin (Daemonorops draconcellus)*, resin (*dammar*), *jelutung* tree-sap, honey and fruits.

In 2001, through the Ministry of Forestry decree No. 98/Kpts-II/2001 in 15 March 2001, Senami forest zone was declared as grand forest park (TAHURA), known as Tahura Sultan Thaha Syaifuddin Senami. The declaration has changed the status of Senami forest zone from a production forest area into a conservation forest area. However, since Senami forest area has been the origin of bulian plants, Tahura Senami is often

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perceived as bulian species diversity conservation. There are thirteen villages surrounding the Tahura Senami, of which the villagers have access on and activity in Tahura Senami. Those villages belong to four sub districts, i.e. Muara Bulian, Bajubang, Muara Tembesi and Batin XXIV Sub District. The name of the thirteen villages are Bungku, Ladang Peris, Pompa Air, Mekar Jaya (Bajubang Sub District), Singkawang, Kilangan, Sridadi, Tenam (Muara Bulian Sub District), Empelu, Jebak, Senami Baru (Muara Tembesi Sub District), Muara Jangga dan Bulian Baru (Batin XXIV Sub District).

Since the road to Tahura Senami is quite good, people from other far away villages (such as Simpang Terusan, Muara Tembesi and Napal Sisik village) are also able to have activities in Tahura Senami.

People activities in Tahura Senami comprises of extraction of forest product such as wood, rattan, jernang, honey and more, also conduct land clearing for rubber and palm-oil plantations. At the moment with its new status, activity on forest product extraction, even more forest logging are forbidden in a conservation area, such as in Tahura Senami. At present there are big decline of flora and fauna population in Tahura Senami zone (Forest Office of Batang Hari, 2005).

Forest stand density in Tahura Senami has far decreased, and there are already open areas in several locations due to logging activity. Important protected animals such as tiger and deer were predicted to be no longer exist in Tahura Senami. Several sites in Tahura Senami zone are already covered by rubber or oil palm, which were planted by people, and considered as their own property, or belonged to some investors from outer village. In the middle of Tahura Senami there is an enclave in the form of Senami Baru Village with an area of 175 Ha. This village area is excluded from the forest zone in 1998.

Due to the heavy damage in Tahura Senami zone, it is compulsory to have serious, well planned, and continuous effort to restore it to its original condition. Also it is necessary to find out why people always carried out activities that may destruct Tahura Senami. The activity is continued even though related parties have often done socialization and management to stop the destructive activities.

In general, local people exploit Tahura Senami zone for their daily living requirements (subsistent), while investors logg the forest in order to expand their possession of rubber plantation for commercial reason. Investors tend to logg and occupy land permanently. Meanwhile, awareness of the people surrounding the Tahura Senami zone on the function and meaning of the conservation zone is still weak.

In relation to raising awareness of the people, information and knowledge on the importance of Tahura Senami zone for the surrounding people needs to be provided. Knowledge transfer process can be done in many ways such as socialization, demonstration activity, discussion, and training.

Training is an effective knowledge transfer because it is usually carried out by the assistant of a trained facilitator, accommodating the people education and cultural condition. Training can also involve resource persons for every given material, and be assisted by non government organization (NGO), who will interact with people, and makes knowledge transfer more effective. For those reasons, training has always been best choice for transferring knowledge to people.

Training with an objective to transfer knowledge on restoration techniques should be put as first priority for the local village people having highest access and closest to the Tahura site. In addition, people who need training are particularly those who access and occupy part of the Tahura Senami.

Based on this thought, people from Bungku, Sridadi and Senami Baru Villages need to be given first opportunity to have the training on the restoration and Agroforestry, because they will involve in the enrichment planting for restoration process, and practice agriculture in the agroforestry setting. People of Sridadi need to have training on rehabilitation because they will involve in the rehabilitation process of some Tahura Senami area, which are occupied by rubber plantation. For Senami Baru which is an enclave of Tahura Senami, the priority topic is on Agroforestry, because this area has been excluded from the conservation area.

Problem

Tahura Senami is an important conservation zone in Batang Hari District. It has experienced destruction due to forest product exploitation and land clearing for permanent plantation. People around Tahura Senami so far are used to exploit forest product in Tahura Senami and have limited choice of livelihood strategies. Limited knowledge and capital made people couldn't utilize the existing village potencies and developed it into a sustainable business that will leave Tahura Senami undisturbed.

Some of Tahura Senami has become open area, of which in several locations there are one year old community rubber plantation. In general the existing forest stand is a low density secondary forest. There are also traditional cultivation inside Tahura Senami zone.

Activity Objectives

The objective of this activity is to identify training need for villagers around Tahura Senami in order to restore Tahura Senami to its original condition. The details of the objectives are:

1. Determining training materials needed, based on villages economic potency and community suggestions/inputs.
2. Recruiting training participants based on suggestion or result of the community discussion and activity in relation to Tahura Senami.

Benefit of Activity

The result of training needs identification will bring benefit in form of information of the economic potency and problems and suggestion for the solution of the existing problems. Based on those economic potency information it can also determine the material that need to be delivered in the training. From this activity participants can also be recruited assuming that it will be in line with the objective of restoring Tahura Senami towards its original condition.

Methodology

Scope

TNA was conducted to determine training materials needed by village community surrounding Tahura Senami, so that they can have the active role in the efforts to restore the condition of the grand forest park to its original condition. Therefore, the identification of villages inside Tahura Senami area, of which community most often have access and activities in the area should be conducted at the first stage.

After the villages were determined, training materials needed by the community are then assessed. The materials assessment was prepared based on demand or condition of Tahura Senami communities, i.e. located close to the chosen villages, occupation of the villagers and economic potencies of the communities living in the chosen villages.

Source of Data and Method of Data Collection

The Data which will be collected is primary and secondary data. The Secondary data is obtained from related institutions, previous reports on Tahura Senami and other literatures related to the objectives of the activities. The Primary data was obtained from direct interview with 40 members of the community using questionnaires which was previously prepared. An active and participative discussion with the community was also conducted. In the discussion the communities were asked to deliver various things, such as: their community and village's potencies, problems faced and suggestions to solve the problems. Based on the list of questions that have been filled out and the participative discussion with the community, primary data related to training materials needed by the community were then collected.

Data Processing and Analysis Method

Secondary and primary data were tabulated according to the information required. The tabulated data were then analyzed descriptively. Other data mainly qualitative ones were then specifically analyzed according to the information obtained.

Identification Results

Identification of Training Needs based on Questionnaire

Most respondents have never undergone training, except five respondents who had have training on plant pest and diseases, seed technology, fertilization and plantation held by the District's Forest Services, Province's Forest Services and Bureau of Management for Watershed (BPDAS) of Batang Hari, and another five respondents who had have training on national movement for forest and land rehabilitation, given by an NGO from Jambi City.

Training needs for agriculture cultivation, plantation, agroforestry, rehabilitation and restoration according to villages of target villages/municipality is presented in Table 1.

Table 1. Training topics required by people involved in each activity

| No. | Topic | Dry Land Cultivation | Plantation | Agroforestry | Rehabilitation | Restoration |
|-----|----------------------------------|----------------------|------------|--------------|----------------|-------------|
| 1. | Plant Pest and Disease | 40 | 40 | 40 | 40 | 40 |
| 2. | Fertilization | 39 | 40 | 40 | 40 | 40 |
| 3. | Production of Organic fertilizer | 39 | 40 | 40 | 40 | 40 |
| 4 | Qualified Seed | 39 | 40 | 40 | 40 | 40 |
| 5 | Post harvest | 1 | - | - | - | - |
| 6 | Jernang Cultivation | - | - | 1 | - | - |

From Table 1 it is obvious that the topic on plant pest and disease, fertilization, production of organic fertilizer and production of high quality seed, are requested by all/most of the respondents, who are having activities on cultivation or plantation agroforestry, forest rehabilitation and restoration. There are also suggestions to have training on post harvest handling of dry land agriculture and jernang cultivation in agroforestry. Some training methods chosen, which can be used in the upcoming training are presented on Table 2.

Table 2. Training method requested by respondent involved in each activity

| No. | Method | Dry Land Cultivation | Plantation | Agroforestry | Rehabilitation | Restoration |
|-----|---------------------------------------|----------------------|------------|--------------|----------------|-------------|
| 1. | Lecture in Class | 39 | 40 | 40 | 40 | 40 |
| 2. | Discussion in Class | 39 | 40 | 40 | 40 | 40 |
| 3. | Demonstration (Picture, etc) in Class | 39 | 40 | 40 | 40 | 40 |
| 4 | Practice in Class | 39 | 40 | 40 | 40 | 40 |
| 5. | Practice in field/demonstration plot | 39 | 40 | 40 | 40 | 40 |
| 6. | Discussion in field | 40 | 40 | 40 | 40 | 40 |
| 7. | Comparative Study | 40 | 40 | 40 | 40 | 40 |

Based on Table 2, respondents can accept all proposed training methods. Thus training can be done through one or more ways, such as in-class activities in the form of lectures, discussion, demonstration, and practice, also outdoor practice in demonstration plot, discussion in field, and comparative study.

The training duration will affect the acceptance of the presented material. Respondents' opinion on the training time is presented on Table 3.

Table 3. Training duration required by respondents involved in each activity

| No. | Time | Dry Land Cultivation | Plantation | Agroforestry | Rehabilitation | Restoration |
|-----|------------|----------------------|------------|--------------|----------------|-------------|
| 1. | Two Weeks | 1 | - | - | 3 | 1 |
| 2. | One Week | 2 | 2 | 3 | 2 | 1 |
| 3. | 3 – 6 days | 33 | 32 | 35 | 32 | 35 |
| 4 | < 3 days | 4 | 6 | 2 | 3 | 3 |

Table 3 shows that most of the respondents wanted a 3-6 days training. Only few wanted the training to be held in less than 4 days.

Training venue often becomes a constraint for participants as it contains the facility needed for training and bears distance from their houses. Training sites chosen by the respondents is presented on Table 4.

Table 4. Selected venue for training chosen by respondents involved in each activity

| No. | Venue | Dry Land Cultivation | Plantation | Agroforestry | Rehabilitation | Restoration |
|-----|-------------------------------|----------------------|------------|--------------|----------------|-------------|
| 1. | Hotel in District capital | 36 | 39 | 40 | 39 | 39 |
| 2. | Hotel in Sub District capital | 2 | - | 40 | 1 | 1 |
| 3. | Village | - | 1 | 40 | - | - |
| 4 | Bogor | 2 | - | - | - | - |

Table 4 shows that almost all respondents have chosen hotel in district capital as place for training. For agroforestry activity, beside hotel in district capital, hotel in sub district capital and village is also acceptable by many of the respondents.

The number of participants in the training determines the atmosphere of the training, for example, the pace and order of training. Number of participants suggested by respondents per training is presented on Table 5.

Table 5. Acceptable number of participants involved per Training

| No. | Number of Participant | Dry Land Cultivation | Plantation | Agroforestry | Rehabilitation | Restoration |
|-----|-----------------------|----------------------|------------|--------------|----------------|-------------|
| 1. | Above 50 people | - | 1 | - | 1 | - |
| 2. | 30 – 50 people | 2 | - | 1 | 2 | 2 |
| 3. | 20 – 30 people | 36 | 35 | 37 | 36 | 37 |
| 4 | < 20 people | 2 | 4 | 2 | 1 | 1 |

In Table 5 can be seen that the number of participants suggested by respondents is between 20-30 people per training. More number of people could disturb the training atmosphere, while training with less number of people will not be effective.

As previously mentioned, most respondents had never attended any training including topic on social-economy. There is one person who has undertaken group institution training held by NGO, and two respondents undertook a training on “cooperation” held by district’s Forestry Agency.

Topic on social-economy consists of several aspects that can be provided. Chosen topics among available topics are presented in Table 6.

Table 6. Topics necessary for training on social-economy aspects

| No. | Topics | Number of Respondents |
|-----|--|-----------------------|
| 1. | Group Institution | 40 |
| 2. | Marketing of Agriculture Subsidiary crops | 40 |
| 3. | Analysis (economy-financial) on agribusiness | 40 |
| 4 | Cooperative | 5 |

On Table 6, it is clear that group institution, marketing of agriculture subsidiary crop and analysis on agriculture business is preferred by the training participants. Small number of participants want topic on “Cooperative”.

Respondent preference on social-economy topics, training method, time, venue, number of participants, is in accordance to the data on dry land cultivation, plantation, agroforestry, rehabilitation, and restoration activities.

Training Needs Based on People Participative Meeting

Sridadi Village (Sub District of Muara Bulian)

Meeting with Sridadi village community was attended by 29 people, Head of Sridadi Village and envoy of Head of Muara Bulian Sub District (list of attendance and photograph of the meeting is attached). Exploration result on the existing potency and problems and suggestion for solution is presented in Table 7.

Table 7. Potency, Problems, and Suggestion for Problems Solution of Sridadi Village

| Village Potency | Problems | Suggestion for Solution |
|---|--|--|
| 1. Rubber | 1. Existing rubber plant is already old | 1. Regeneration |
| | 2. Planting with old-rubber plantlings | 2. The use of qualified seed |
| | 3. Does not have knowledge on good cultivation | 3. Information and training |
| | 4. Attack of boar and monkey | 4. Information and main pest control |
| | 5. Unable to buy fertilizer | 5. Capital equipping and training on organic fertilizer production |
| | 6. Tapping is still traditional | 6. Training on tapping |
| | 7. Limited capital | 7. Capital equipping |
| | 8. Market is controlled | 8. Establishment of auction market and cooperative |
| 2. Vegetables: | | |
| - Chilly | - curling leaf | - Training on pest control |
| - Spinach | - does not grow well | - Training on good cultivation |
| - Long bean | - grasshopper attack | - Training on pest control |
| - Eggplant | - pest attack | - Training on pest control |
| -Chinese pumpkin | - pest attack | - Training on pest control |
| 3. Groundnut | Replanting, empty pod | - TSP/SP-36/lime fertilizer |
| 4. Medicinal and refreshment plant: | | |
| - Ginger/greater galingale, <i>Kamferia galanga</i> | - Seed unavailability | - Supply of healthy/good seed |

| Village Potency | Problems | Suggestion for Solution |
|---|--------------------------------------|--------------------------------|
| (kencur) | | |
| | - Seed from market cannot grow | - Supply of healthy/good seed |
| | - Unsecured marketing | - Establishment of cooperation |
| | | |
| 5. Distance | - Doesn't know cultivation technique | - Information and training |
| | - Unclear marketing | - Providing market information |
| | | |
| 6. Fish : | | |
| - Nila | 1. Have no capital to make pond | 1. Capital loan |
| - (Bawal) Silver Fish - <i>Pampus argentues</i> | 2. Bad marketing | 2. Marketed in Muara Bulian |
| - (Patin) river fish - <i>Pengasius nasutus</i> | 3. Woof unavailability | 3. Self production of woof |
| | 4. Flood event, loose fish | 4. Good dam construction |
| | | |
| 7. Chicken, cow, and sheep farm | 1. Cultivation is not yet mastered | 1. Training and information |
| | 2. cattle disease | 2. Training on pest control |
| | | |

The main potency and income of Sridadi Village people is rubber production. However, they have problems on low productivity of rubber tree. The small yield was due to old plantation people, the use of ordinary rubber plantlings, and at the same time the rubber cultivation and tapping is still traditionally carried out. In the meantime people capital is limited and rubber market is controlled by middle men. The new planted plants are attacked by boar and monkey. People here would like to have high quality seedlings to regenerate their plantation, good cultivation technique, as well as capital assistance and establishment of rubber auction market.

Other Sridadi Village potency is land availability for vegetables, ground nut, medicinal and refreshments plants, fish pond and farm. This potency is not yet well exploited and has not yet given significant contribution to the community income.

Bungku Village (Sub District of Bajubang)

Meeting with people of Bungku Village took place in Meeting Hall of Bungku Village. The discussion was attended by 25 people and attended by Secretary of Bungku Village (list of attendance and photograph of the meeting is attached). Exploration result on the existing potency and problems and suggestion for solution is presented in Table 8.

Table 8. Potency and Problems of Bungku Village and Suggestion for its Solution

| Village potency | Problems | Suggestion for Solution |
|--|---|---|
| 1. Rubber | <ol style="list-style-type: none"> 1. White root fungi disease 2. Attack of termite 3. Attack of boar and monkey pest 4. Inter-subsidiary cropping with subsidiary crop (ground nut, string bean, chilly, and cucumber) not successful (empty pod, curling pod, curling leaf and not good harvest) 5. Marketing : <ul style="list-style-type: none"> - Cheap price - tied to middle men | <ol style="list-style-type: none"> 1. Training on disease control 2. Training on termite control 3. Training on pest control <ol style="list-style-type: none"> 1. Information and training on inter-subsidiary cropping <ul style="list-style-type: none"> - establishment of auction market and cooperative - establishment of auction market and cooperative |
| 2. Bamboo | <ol style="list-style-type: none"> 1. Big potency but not yet well exploited 2. Used only for land/house fence | <ul style="list-style-type: none"> - Training on bamboo processing -Marketing of bamboo handicraft |
| 3. Red coloredresin (Jernang) | <ul style="list-style-type: none"> - Doesn't know the way of cultivation yet - Doesn't know how to harvest its sap - The market is limited | <ul style="list-style-type: none"> - Information and training - Training on harvest and post harvest - Looking for information on Red colored resin (jernang) market |
| 4. Rattan | <ul style="list-style-type: none"> - Cultivation is not yet intensive - Low Rattan selling price - When selling in the city, they are often caught by police officer | <ul style="list-style-type: none"> - Information and training on cultivation - Looking for information on rattan market - Arrangement of SKSHH etc |
| 5. Honey | <ul style="list-style-type: none"> - Hard to be extracted even tough have potency - Processing is not yet good - Packaging is not yet good - Marketing does not run well | <ul style="list-style-type: none"> - Information and training - Training on processing - Training on packaging - Providing market information |
| 6. Forest tree (<i>Eusyderoxylon zwagerii</i> Bulian) | <ul style="list-style-type: none"> - Doesn't know the way of cultivation yet - Non wood product is not yet known | <ul style="list-style-type: none"> - Training on cultivation - Seed production, batik color, etc. |

| Village potency | Problems | Suggestion for Solution |
|---|---|---|
| 7. Durian | <ul style="list-style-type: none"> - The cultivation is not yet mastered - Old-rubber plantlings / don't know how to do inoculation (there is a high quality local durian, Durian tembago species) - Product processing is not yet good - Processed durian meat (Tempoyak) is hard to be marketed | <ul style="list-style-type: none"> - Training on cultivation technique - Training on inoculation - Production of various processed product - Providing market information |
| 8. Candle Nut | <ul style="list-style-type: none"> - Doesn't know how to utilize candle nut fruit | <ul style="list-style-type: none"> - Training on harvesting, product processing and product marketing |
| 9. Cassava | <ul style="list-style-type: none"> - Not yet well processed and marketed | <ul style="list-style-type: none"> - Training to produce various processed product - Processed product packaging and marketing |
| 10. Creeping yam (<i>Dioscorea hispida-Gadung</i>) | Big potency but not yet exploited | <ul style="list-style-type: none"> - Information and training on utilization of Creeping yam - Removing poison of Creeping yam - Training on various processed product of creeping yam (chip, powder, etc.) - Campaign on consumption and marketing of various Creeping yam processed product |

The main potency and income of Bungku Village community is rubber. However, the productivity of rubber tree is already very low due to old age, use of ordinary rubber plantlings (bibit sapuan), and high number of attack of white root fungi (jamur akar putih-JAP) disease and termite. Attack of white root fungi diseases and termite have decreased the plant population and eventually decreasing the production of latex. Therefore, the people would like to have training on control of white root fungi and termite attack. In the meantime, the people have limited capital, while rubber market is controlled by middle men who set low price.

Other potency of Bungku Village is bamboo, red colored resin (jernang), rattan, honey, candle nut, creeping yam (gadung), and cassava. All these plants are not well exploited yet and therefore have not given contribution to the community income. The community would like to have information and training on utilization of those plants to be made into high economic value product that could increase family income.

Senami Baru Village (Sub District of Muara Tembesi)

The meeting and discussion with people of Senami Baru Village was taken place at the Senami Baru Village head residence and were attended by 21 people, village secretary and Head of Senami Baru Village (list of attendance is attached). Exploration result on the potency and problems as well as suggestion for solution is presented in Table 9.

Table 9. Potency and Problems of Senami Baru Village and Suggestion for its Solution

| Village Potency | Problems | Suggestion for Solution |
|--------------------------------|---|--|
| 1. Rubber | 1. Rubber tree cultivation: <ul style="list-style-type: none"> - Determination of planting distance - Maintenance before sapped - Fertilization - The use of wild-grown seed 2. Attack of pest and disease: <ul style="list-style-type: none"> - White root fungi - Fungi on sap area - termite pest - Boar and monkey pest on new planted plant 3. The yield is small (1/3 yield of PTP) | 1. Information and training on rubber tree cultivation <ul style="list-style-type: none"> - The making and casting of fertilizer - Using qualified seed 2. Information and training on pest and disease control 3. The use of qualified seed and good cultivation technique |
| 2. Dry land cultivation paddy | 1. Dead after filling period 2. Not using any fertilizer 3. Attack of boar, rat, and bird | 1. Rice pest control 2. Training on fertilization product 3. Information and training on pest control |
| 4. Red colored resin (Jernang) | 1. Don't know planting technique 2. Seed is not available | 1. Information and training on Red colored resin (jernang) cultivation 2. Training on seeding |
| 3. Potency plant | | |
| - Jelutung | 1. Hard to get and sapped | 1. Planting |
| - Durian | 2. Don't bear fruit annually | 2. The use of qualified seed |
| - Areca nut | 3. The yield is little | 3. The use of qualified seed |

The main potency and income of Senami Baru people is rubber. However, the productivity of people rubber tree is very low, due to old age, usage of ordinary rubber plantlings (bibit sapuan), unfertilized plants, high rate attack of white root fungi disease and termite. Attacks of white root fungi disease and termite have decreased the plant population and latex production. Attack of fungi on sapping area has killed plant and so latex does not seep out after being tapped. The community has limited capital and at the same time the rubber market is controlled by middle men who set low price. Those

condition has made people requested a training in order to be able to control white root fungi disease and termite. In addition, the people also interested in training on producing high quality rubber seedlings.

Other existing potency in Senami Baru Village is dry land paddy cultivation, red colored resin (jernang), and others, such as jelutung, durian and arenga nut. All these plants are still potential, since they are not well exploited yet, that they have not given any contribution to the people income. The people want information and training on production of better product with higher economic value from those plants, in their effort to generate higher income.

Training Participants

During participative discussion on identification of training needs, each village/municipality was asked to send their representative as training participant. The appointed representative were obligated to transmit the acquired knowledge to other people in their village, and do activity in Tahura Senami on their own will, not by any investor request. Based on the stipulation, representative of each villages/municipalities is presented on Table 10.

Table 10. List of Representative of Village/Municipality for Training

| No. | Name | Age (Year) | Education | Origin (Village/Municipality) |
|-----|--------------|------------|---|-------------------------------|
| 1. | M. Sabli | 36 | Elementary School | Senami Baru |
| 2. | Abunyani P. | 35 | Elementary School | Senami Baru |
| 3. | Suryadi | 21 | Elementary School | Senami Baru |
| 4. | Aan | 25 | Junior High School | Senami Baru |
| 5. | Topol | 25 | Elementary School | Senami Baru |
| 6. | Musa | 70 | Elementary School | Senami Baru |
| 7. | Sailin | 50 | Elementary School | Senami Baru |
| 8. | Abunyani J. | 34 | Elementary School | Senami Baru |
| 9. | Saipul | 20 | Elementary School | Senami Baru |
| 10. | Nursandi | 19 | Elementary School | Senami Baru |
| 11. | M. Zainudin | 39 | Senior High School | Sridadi |
| 12. | Ponirin | 45 | Elementary School | Sridadi |
| 13. | Sucipto | 50 | Elementary School | Sridadi |
| 14. | Mahmudi | 37 | Junior High School | Sridadi |
| 15. | Parmo | 53 | Junior High School | Sridadi |
| 16. | Untung, A.M. | 54 | Junior High School | Sridadi |
| 17. | Suherman | 30 | Elementary School | Sridadi |
| 18. | Parman | 41 | Elementary School | Sridadi |
| 19. | A. Fauzi | 35 | Senior High School / Islamic Senior High School | Sridadi |
| 20. | M. Pranoto | 32 | Elementary School | Sridadi |
| 21. | Arba | 57 | Elementary School | Bungku |
| 22. | Nursidin | 50 | Elementary School | Bungku |
| 23. | Bahari | 30 | Elementary School | Bungku |

| No. | Name | Age (Year) | Education | Origin (Village/Municipality) |
|-----|----------|------------|---|-------------------------------|
| 24. | Yulnasri | 36 | Junior High School | Bungku |
| 25. | Suhi | 55 | Elementary School | Bungku |
| 26. | Suparno | 33 | Senior High School | Bungku |
| 27. | Mustar | 42 | Elementary School | Bungku |
| 28. | Johan | 45 | Elementary School | Bungku |
| 29. | Suhadi | 64 | Elementary School | Bungku |
| 30. | Yaman | 29 | Elementary School | Bungku |
| 31. | Najam | 40 | Junior High School | Bungku |
| 32. | Syamsud | 51 | Elementary School | Bungku |
| 33. | M. Saleh | 62 | Junior High School / Islamic Junior High School | Bungku |
| 34. | Kanang | 64 | Elementary School | Bungku |
| 35. | Mustopa | 42 | Elementary School | Bungku |
| 36. | Ramlan | 70 | Elementary School | Bungku |
| 37. | Saini | 45 | Elementary School | Bungku |
| 38. | Bahtiar | 53 | Elementary School | Bungku |
| 39. | Jensa | 32 | Senior High School | Bungku |
| 40. | Tarmiji | 42 | Elementary School | Bungku |

Beside forty representatives from villages/municipality, the training is also followed by two field instructor from Forestry Agency of Batang Hari District and from Plantation Office of Batang Hari District respectively. Those field instructors are Effendi, S.Sos and Mulyono.

IV. CONCLUSION

From the community participation meeting and questionnaire recapitulation it is concluded that trainings needed by the community are:

1. Training on Agroforestry.
2. Training on Rehabilitation.
3. Training on Restoration.
4. Training on Dry Land Cultivation (dry paddy cultivation, subsidiary crop and horticulture)
5. Rubber cultivation (making qualified seed, planting-distance arrangement, fertilizing, and maintenance)
6. Control of white root fungi disease and termite pest on rubber tree.
7. Control of boar, monkey, rats, and birds pests on paddy, subsidiary crop, and horticulture.
8. Cultivation of local potency plants (jelutung, durian and arenga)
9. Forest honey bee cultivation.
10. Processing and marketing of bamboo handicrafts.
11. Post-harvest technology (for agriculture, plantations, forestry, horticulture, and subsidiary crop results).
12. Training on cooperation (koperasi).
13. Training on marketing (for agriculture, plantations, forestry, horticulture, and subsidiary crop results).

14. Rattan cultivation, processing, and marketing of processing-result.
15. Farmers groups institutions.
16. Agribusiness analysis.

Besides the proposed trainings which will be given, the community in the three villages/municipalities also requested things as follow:

1. Method used in the training can be one or more, such as class lecture, class discussions, class demonstration, field practice/demonstration plot, field discussion, and comparison study.
2. Training duration is 3 – 6 days.
3. Training place is in a city/district hotel.
4. Best number of training participants is 20-30 people.

ACKNOWLEDGEMENTS

The Technical Report No 1 on Training Needs Assessment for Participatory establishment of collaborative sustainable forest management in Senami, Jambi has been prepared to fulfill **Objective 1 Point 1.1** of the Workplan of ITTO Project PD 210/03. Rev 3 (F): Participatory Establishment of Collaborative Sustainable Forest Management in Dusun Aro, Jambi.

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Annex 1.

**(Training Needs Assessment Guideline)
Participatory establishment of collaborative sustainable
forest management**

A. Respondent Data

| Name | Age | Sex | Educational Level | Address*) |
|------|-----|-----|-------------------|-----------|
| | | | | |

*) RT/RW, kampong, village, sub district

B. Training Material (Topic) needed for dry land cultivation

B.1. Training which has been attended

1). Topics on attended training

| No. | Topic | Give mark**) √ or X |
|-----|--------------------------------|------------------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) More specific

**) Choose one

2). Training Institution

| No. | Institution | Give mark √ or X |
|-----|----------------------------|---------------------|
| 1. | District Forestry Agency | |
| 2. | BKSDA | |
| 3. | BPDAS | |
| 4. | Provincial Forestry Agency | |
| 5. | Others *) | |

*) More specific

B.2. Training needed

1). Training Topic needed

| No. | Topic | Give mark √ or X |
|-----|--------------------------------|---------------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) More specific

2). Methods (way of learning)

| No. | Method | Give mark √ or X |
|-----|---|---------------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participants per training

| No. | Number of Participants | Give √ or X |
|-----|------------------------|----------------|
| 1. | > 50 person | |
| 2. | 30 – 50 person | |
| 3. | 20 – 30 person | |
| 4. | < 20 person | |
| 5. | Others | |

C. Topic (Material) needed for Training on Plantation

C.1. Attended Training

1). Topics on attended training

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Training Institution

| No. | Institution | Give √ or X |
|-----|----------------------------|----------------|
| 1. | District Forestry Agency | |
| 2. | BKSDA | |
| 3. | BPDAS | |
| 4. | Provincial Forestry Agency | |
| 5. | Others *) | |

*) More specific

C.2. Training needed

1). Training Topic needed

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Method (way of learning)

| No. | Method | Give √ or X |
|-----|---|----------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participants per training

| No. | Number of Participant | Give √ or X |
|-----|-----------------------|----------------|
| 1. | >50 persons | |
| 2. | 30 – 50 persons | |
| 3. | 20 – 30 persons | |
| 4. | < 20 persons | |
| 5. | Others | |

D. Topic (Material) needed for Training on Agroforestry

D.1. Attended training

1). Topics on attended training

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Training Institution

| No. | Institution | Give √ or X |
|-----|----------------------------|----------------|
| 1. | District Forestry Agency | |
| 2. | BKSDA | |
| 3. | BPDAS | |
| 4. | Provincial Forestry Agency | |
| 5. | Others *) | |

*) more specific

D.2. Training needed

1). Training Topic needed

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Methods (way of learning)

| No. | Method | Give √ or X |
|-----|---|----------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participant per training

| No. | Number of Participants | Give √ or X |
|-----|------------------------|----------------|
| 1. | > 50 persons | |
| 2. | 30 – 50 persons | |
| 3. | 20 – 30 persons | |
| 4. | < 20 persons | |
| 5. | Others | |

E. Topic (Material) needed for Training on Rehabilitation

1). Topic of needed Training

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Method (way of learning)

| No. | Method | Give √ or X |
|-----|---|----------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participant per training

| No. | Number of participants | Give √ or X |
|-----|------------------------|----------------|
| 1. | > 50 persons | |
| 2. | 30 – 50 persons | |
| 3. | 20 – 30 persons | |
| 4. | < 20 persons | |
| 5. | Others | |

F. Topic (Material) needed for Training on Restoration

1). Training topic needed

| No. | Topic | Give √ or X |
|-----|--------------------------------|----------------|
| 1. | Plant pest and disease *) | |
| 2. | Fertilizing*) | |
| 3. | Producing organic fertilizer*) | |
| 4. | Qualified seed*) | |
| 5. | Others | |

*) more specific

2). Method (way of learning)

| No. | Method | Give √ or X |
|-----|---|----------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participant per training

| No. | Number of Participant | Give √ or X |
|-----|-----------------------|----------------|
| 1. | > 50 persons | |
| 2. | 30 – 50 persons | |
| 3. | 20 – 30 persons | |
| 4. | < 20 persons | |
| 5. | others | |

G. Topic (Material) needed for Training on Social and Economy

G.1. Attended training

1). Topics on attended training

| No. | Topic | Give √ or X |
|-----|--|----------------|
| 1. | Group Institution *) | |
| 2. | Agriculture Subsidiary crop Marketing *) | |
| 3. | Analysis (economic-financial) on agribusiness *) | |
| 4. | Others | |

*) more specific

2). Training Institution

| No. | Institution | Give √ or X |
|-----|----------------------------|----------------|
| 1. | District Forestry Agency | |
| 2. | BKSDA | |
| 3. | BPDAS | |
| 4. | Provincial Forestry Agency | |
| 5. | Others *) | |

*) more specific

G.2. Training needed

1). Training Topic needed

| No. | Topic | Give √ or X |
|-----|--|----------------|
| 1. | Group Institution *) | |
| 2. | Agriculture Subsidiary crop Marketing *) | |
| 3. | Analysis (economic-financial) on agribusiness *) | |
| 4. | Others | |

*) more specific

2). Methods (way of learning) needed

| No. | Method | Give √ or X |
|-----|---|----------------|
| 1. | Lecture in front of class | |
| 2. | Discussion in class | |
| 3. | Demonstration (picture, slide, film) in class | |
| 4. | Practice in class | |
| 5. | Field practice | |
| 6. | Field discussion | |
| 7. | Comparison study | |
| 8. | Others | |

3). Appropriate duration per training

| No. | Duration | Give √ or X |
|-----|--------------|----------------|
| 1. | Two weeks | |
| 2. | One week | |
| 3. | 3-6 days | |
| 4. | < 3 days | |
| 5. | Others | |

4). Appropriate venue for training

| No. | Venue | Give √ or X |
|-----|------------------------|----------------|
| 1. | Hotel in district city | |
| 2. | Sub district city | |
| 3. | Village | |
| 4. | Others | |

5). Appropriate number of training participant per training

| No. | Number of Participant | Give √ or X |
|------------|------------------------------|------------------------|
| 1. | > 50 persons | |
| 2. | 30 – 50 persons | |
| 3. | 20 – 30 persons | |
| 4. | < 20 persons | |
| 5. | others | |

Annex 2. Pictures of Training Needs Identification



Picture 1. Implementation Team held a discussion with the community from Sridadi Municipality



Picture 2. The Community attending Identification of Training Needs in Sridadi Municipality



Picture 3. Activists of Local NGO, Vice Head of Muara Bulian Sub District, and Head of Sridadi Municipality attended the discussion on the Identification of the Training needs.



Picture 4. Implementation Team was exploiting the potencies of Sridadi Municipality



Picture 5. Implementation Team together with the Village Secretary held a discussion with Bungku community



Picture 6. Bungku Village Community attending the Identification of Needs Activity in the Hall of Bungku Village Hall



Picture 7. Implementation Team was looking into the potencies of Bungku Village

| | | |
|------------------|---|---|
| 5. MADU | - Potensi sayur-pemanfaatan lahan optimal - Cara pengemasan + transportasi, distribusi | - Perlu penelitian + praktik pemanfaatan + pengolahan + Baku daya |
| 6. BULIAN | - Produk olahan olivaceous (perut, paku, paku) | - Perlu penelitian, pemasaran |
| 7. DURIAN | - Budidaya Cula durian/cara standar - Hasil (buah) untuk di konsumsi sendiri atau ekspor ke luar | - Perlu penelitian untuk standar - Perlu penelitian pengolahan & pemasaran |
| 8. KEMATI | - Cara pengolahan dan pemasaran - Lahan olivaceous - Pasar lokal & luar | - Perlu penelitian, pemasaran, praktik & inovasi - Perlu pasar |
| 9. Ubi Kayu | - Pemasaran, distribusi, pemasaran | - Perlu penelitian, pemasaran, inovasi |
| 10. Selang | - Pengolahan | - Perlu penelitian, pemasaran |
| 11. Jajaja / dll | - Pemasaran | - Perlu penelitian, pemasaran |

Picture 8. The result of potencies exploitation along with the problems faced and suggested solutions to solve the problems



Picture 9. Red colored resin (Jernang), one of the potencies obtained at Bungku Village



Picture 10. Implementation Team was exploiting the potencies of Senami Baru Village



Picture 11. Senami Baru Village Community attending the Needs Identification Activity at the Hall of Senami Baru Village Hall



Picture 12. Implementation Team was having a discussion with Senami Baru Village community on the Training Needs Identification.