



ANALYSIS OF GENDER MAINSTREAMING AND SOCIO ECONOMIC

in the Cross Cutting Capacity Development (CCCD) Project at the Micro Watershed Model, Way Khilau, Lampung Province

Christine Wulandari



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At the Micro Watershed Model Way Khilau, Lampung Province

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FOREWORD

Our gratitude goes to the presence of God Almighty, because with His permission, the Gender Mainstreaming and Socio-Economic Analysis can be completed on time. The preparation of this book is a follow-up to the implementation of the Work Agreement No. SPK. 281 / BPDASHL.WSSfTU / PEG / 8/2020.

This book was prepared with the aim of analyzing gender and socio-economic mainstreaming in the CCCD Site Coordinator Unit (SCU) Lampung Project. This book discusses the importance of gender integration in supporting efforts to mitigate land degradation, biodiversity and mitigate climate change

We would like to thank the parties who have provided input in the process of compiling this book, with the hope that what we have done will benefit the efforts to improve the welfare of the people of Bayas Jaya Village and the recovery of MDM Way Khilau.

Head of

Watershed Management of Way Seputih
Way Sekampung

PREFACE

In supporting the achievement of the Rio de Janeiro Convention 1992, the Indonesian government has ratified 3 conventions on climate change, biodiversity, and reduced desertification, or land degradation, as follows: (1.) Laws No. 5 year 1999 on Endorsement of United Nation Convention on Biological Diversity, (2.) Laws No. 6 year 1999 on Endorsement of *United Nation Framework Convention on Climate Change*, and (3.) President Decree (Keputusan Presiden) No. 135 year 1998 on *United Nations Convention to Combat Desertification (UNCCD)*.

The implementation in the field of these 3 ratifications is very important to do by integrating gender aspects in it. This is necessary because so far almost all environmental problems are perceived as the man's world. In reality, management of land and natural resources that is environmentally friendly and beneficial for environmental conservation and community livelihoods cannot be separated from the cooperation of the roles of women and men. Achieving the objectives of the CCCD Project which covers the 3 issues above requires collaboration between community members and gender integration, especially in the context of gender relations in an equitable manner. The main topic of this book is the analysis of gender correlation in achieving the objectives of the CCCD Project in Bayas Jaya Village, Lampung Province. It is hoped that this book can be used as material for consideration in implementing the 3 issues that have been ratified in the Way Khilau Sub-watersheds, Lampung Province. Based on that, the writer and the editorial team hope that this book will be of use to relevant parties. In addition, It is hoped this book will contribute to ensuring the sustainability of

natural resources as well as the programs that support the 3 issues that have been ratified by the Government of Indonesia. At the same time, there is hope that this book can support the assurance of gender justice and equality which is a real effort to achieve the SDGs. We would like to express our appreciation and gratitude to those who have assisted in the preparation of this book to completion:

1. Mr. Much. Saparis Soedarjanto, National Project Director Proyek CCCD, also as Director of PEPDAS, Directorate General Watershed and Protection Forest Management, KLHK,
2. Mrs. Ratna Kusuma Sari, National Project Manager of CCCD Project,
3. Mr. Iwan Setiawan, Environment Unit, UNDP Indonesia
4. Dean of Agriculture Faculty of Lampung University
5. Head of Way Seputih Way Sekampung Watershed Unit Office and Staff,
6. Ratnawati as *Pejabat Pembuat Komitmen* CCCD SCU Lampung Project
7. Regional Facilitator and CCCD SCU Lampung staff
8. Supporting Team of Lampung University for data and information gathering

Bandarlampung, 12 September 2020

Christine Wulandari

SUMMARY

In supporting the achievement of the 1992 Rio Convention, the government has ratified 3 conventions, namely: (1) Law No. 5 of 1999 concerning Ratification of the United Nation Convention on Biological Diversity, (2) Law No. 6 of 1999 concerning Ratification of the United Nation Framework Convention on Climate Change and (3) Presidential Decree No. 135 of 1998 on the United Nations Convention to Combat Desertification (UNCCD). In particular, the Government of Indonesia is developing the Capacity Development for Implementing Rio Conventions through Enhancing Incentive Mechanisms for Sustainable Watershed/Land Management (CCCD) Project. This project is being implemented at the Way Khilau MDM in Bayas Jaya Village (based on a decision from the PEP DAS Directorate No 13/PEPDAS/P2DAS/KLN.0/3/2018).

The implementation of programs needs to be appropriate, according to conditions in the field as well as gender based. The purpose of the research carried out in August–September 2020 is to analyze changes in gender mainstreaming patterns and socio-economic in Bayas Jaya after the intervention of the CCCD Site Coordinator Unit (SCU) Lampung Project. The analysis uses primary and secondary data. The number of respondents are 81 people, consisting of 78 people (33.3% are women, representing 20 community groups) and 3 village administrators.

The results of the study are as follows: (1.) In 2020, gender roles increased by around 45% because the types of activities were increasingly diverse, there was also an increase in gender roles by around 15 - 20% in carrying out domestic activities. (2.) there was a 14% increase in gender roles in control over natural resources, but

the role for access remained the same. (3.) There were 47.77% of respondents who already knew about climate change, 43% knew about biodiversity, and 67.4% had knowledge of land degradation. The average people agreed with all the symptoms and impacts of the 3 issues raised by CCCD. Out of 99.1 - 99.7% of the people of Bayas Jaya have done practices which were relevant to 3 CCCD issues. (4) 55% of respondents stated that the Lampung SCU CCCD Team played a role in providing information on the 3 CCCD issues. (5.) There were about 9% of the people who were originally non-agricultural then turned into farmers. After the intervention of the CCCD SCU Lampung program, community groups received two grants and had the prospect of a significant increase in income, namely IDR 769,747 or more than 100%. (6.) The Lampung SCU CCCD project has supported around 41% of funding to improve the community economy in Bayas Jaya. (7.) There are 5 business clusters of the Bayas Jaya community whose activities reflect 3 CCCD issues. (a.) The home industry cluster for 6 KWTH institutions have the prospect of providing economic support of 5% - 7% per month, (b.) The agrosilvopastoral cluster. Each member of the Andan Jejama Cluster group will receive around IDR 10,000 - 30,000/goat or supporting a family income of 0.7% -2.1%, the members of the Setia Hati cluster will receive estimatedly at IDR 6,000 - 17,000/goat or supporting a family income of IDR. 0.4 -1.2%. (c.) Agro Silvofishery Cluster : The members of KTH Indah Makmur get around IDR 110,000/person, while KTH Damar Kubang members get IDR 180,000/person. (d.) Pokdarling Cluster. The head of Pokdarling is a woman and the gender role is 45%. The income is around IDR 100,000 - 150,000 per month. (e.) Pokdarwis Cluster. Their gender role is 46% and they do not have income because all tourist locations have not yet started to be charged for entrance fees. (7.) Factors affecting gender roles are: Internal: (a.) Women's perceptions of themselves, (b.) Women's knowledge of forest sustainability, (c.) Forest utilization rates, and (d.) Family social status ; External: (a.) Community perceptions of the role of women in managing forests, (b.) The length of time of the husbands becoming members of KTH. (8.) Gender roles in every important

value of agroforestry are, as follows: utilization of non-timber forest products (sources of food , medicines and fruits) is around 69%, utilization of timber forest products is around 15%, water supply or preservation is around 28% , ecotourism development is around 46%, wildlife habitat preservation is 10%, livestock use is around 12%, customary use is 12%, fish pond management is 14%, honey bee maintenance is 13%, and ecotourism development is 46%. (9) Specifically, gender roles in Village Community Institutions have reached 22% (10.) The prospect of gender roles in supporting household income is around 7-10%/month. (11.) The gender role reached 53% in waste recycling and environmental sanitation efforts. (12.) Best practices: (a) The gender role made up 40% in agroforestry management in customary lands/private forest and generated an income of IDR 3,693,875 / hectare/month outside timber forest products (b.) The ratio of the roles of men: women was 53%: 47% in managing agroforestry in Dusun Sinar Jaya and earning IDR 2,260,000/hectare/month (c.) The gender role in the landscape of agroforestry land near Batu Perahu tourist sites reached 55% and earned IDR 490,000/month from candlenut and lemongrass. (12.) Conclusion. (a.) The programs of the Lampung SCU CCCD Project Team have reflected the 3 CCCD issues and given a positive impact on gender roles and equality. (b.) there is an impact of the welfare improvement of the community and the facilitation of its development, however, still needs to be improved. (13.) Recommendations. (1.) It is necessary to immediately formulate an umbrella policy for community empowerment programs based on gender mainstreaming. (b) It is necessary to increase the capacity of human resources (individuals and institutions). (c.) It is necessary to increase gender capacity in economic improvement.

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I. INTRODUCTION

The Rio Convention of 1992 finally encouraged the effective implementation of 3 other important UN conventions in maintaining the balance of natural ecosystems, namely the Convention on Climate Change, Biodiversity, and Reducing Desertification or can be referred to as Land Degradation. The three conventions are important because within ten years the objectives of the Rio Convention 1992 have not yet been achieved, there has been a decline in forest area throughout the world by 2.2 percent and global CO₂ emissions have increased by 9 percent in 10 years (Kompas, 2020). Particularly in Indonesia, in supporting the achievement of the Rio Convention 1992, the government has ratified 3 conventions on climate change, biodiversity, and reduced desertification/land degradation. The 3 ratifications are as follows:

- (1.) Laws No. 5 year 1999 on Endorsement of United Nation Convention on Biological Diversity,
- (2.) Laws No. 6 year 1999 on Endorsement of *United Nation Framework Convention on Climate Change*,
- (3.) President Decree (*Keputusan Presiden*) No. 135 year 1998 on *United Nations Convention to Combat Desertification (UNCCD)*.

By having ratified the 3 conventions, the Government of Indonesia must be able to prove the effectiveness of its implementation in the field. It is known that the Government of Indonesia has published the National Action Plan Program and Strategy for Addressing Land Degradation in Indonesia, the Biodiversity Action Plan and the National Action Plan for Climate Change Adaptation. In addition, the Government also issued

Government Regulation Number 61 of 2011 concerning the National Action Plan for Reducing Greenhouse Gas Emissions (NAP-GGE) and Presidential Regulation Number 71 of 2011 concerning National GGE Inventory, Regulation of the Minister of Environment and Forestry (Permen LHK) number P.7 /MENLHK/Setjen/Kum.1/2/2018 concerning Guidelines for Assessment of Vulnerability, Risk and Impact of Climate Change.

In supporting the policies relevant to the 3 (three) conventions, the Lampung Provincial government has issued Governor Regulation No. 12A of 2012 concerning the Regional Action Plan for Reducing Greenhouse Gas Emissions, and the Regional Regulation (*Perda*) of Lampung Province No. 1 of 2010 concerning the Lampung Province Spatial Planning (RTRW) from 2009 to 2029. As for forest management, there have been issued, namely *Perda* No. 23/2014 on the Rehabilitation of Forests and Critical Land, *Perda* No. 73/2014 on Guidelines for Forest Protection, *Perda* No. 6/2015 on Order and Control of Forest Areas, and *Perda* No. 52/2016 on Guidelines for the Use of Productive Forest Areas. Especially for forest and land rehabilitation, since 2012 Lampung Province has launched the Green Lampung Movement (*Gelam*) with a target on state lands (Protection Forest, Conservation) and private lands (*marga*). In the context of Watershed Management (WSM), Lampung Province has issued *Perda* Lampung Province Number 22 of 2014 concerning Integrated Watershed Management of Lampung Province, revised in 2017.

The issuance of guidelines and strategy documents for the implementation of a program and the issuance of various regulations will not be effective and have an optimal impact or achievement of their objectives if they are not accompanied by an actual implementation mechanism in the right field, and involve relevant stakeholders and based on existing socio-economic conditions. Therefore, the implementation of the 3 (three) ratifications of the conventions on climate change, biodiversity, and reducing desertification or land degradation must be carried out with the right program implementation mechanism, according to the conditions in the field, and involving relevant stakeholders

(Wulandari and Inoue, 2018). Considerations in determining the right stakeholders should also be local gender-based.

Recently, Indonesia government develop specific project of *Capacity Development for Implementing Rio Conventions through Enhancing Incentive Mechanisms for Sustainable Watershed/Land Management (CCCD)* toward to 3 conventions implementation in provincial scale. Thus, CCCD projects which has been implemented in Lampung and East Java Provinces has purposes as follows “to strengthen targeted legal and regulatory frameworks as well as economic incentives to meet global environmental outcomes through sustainable watershed management”.

This project has been implemented in Sub Sub Watershed Way Khilau, Sekampung Watershed, Lampung Province (on basis Directorate of PEP Watershed Decree No. 13/PEPDAS/P2DAS/KLN.0/3/2018). This sub-watershed only has an area of about 680 ha, so it can be said that the CCCD (Cross Cutting Capacity Development) project program locus is on the Micro WS scale, or better known as the concept of the Micro WS Model (MWM). The Regulation of the Director General of Land Rehabilitation and Social Forestry Number P. 15 / V-Set / 2009 concerning Guidelines for the Development of a Micro Watershed Model Area states that the Micro WS program is the management of a watershed with an area of less than 5,000 ha.

The analysis of the MWM program must consider the socio-economic and cultural aspects of the site where this program is implemented. Besides, gender aspects must also be considered because, based on the Presidential Instruction No. 9 of 2000, it is known that the definition of gender is the roles and responsibilities of men and women that occur due to the social and cultural conditions of the local community. Thus, based on these 2 gender and socio-economic cultural aspects, this book will discuss the importance of gender integration in supporting programs of biodiversity, climate change and land degradation (desertification) at the CCCD project site in Lampung Province which has been going on for 3 years. From the results of many studies it is proven that the gender aspect plays a role in supporting family welfare. The gender

aspect referred to is not only based on gender alone but also the fairness of roles between men and women in implementing programs or activities for land and forest management. A research states that women will have a strong role in natural resource conservation programs around where they live because they have an appropriate division of responsibilities with men in their households (Wulandari *et al.*, 2013).

The Indonesian Government's policy through INPRES No. 9/2000 on Gender Mainstreaming (GM) emphasizes that gender integration is needed in the implementation of development programs in Indonesia to encourage the realization of an improvement in the quality of life of the community. Based on that INPRES, the GM is a strategy in achieving gender equality through the implementation of a public policy. The approach in the GM to develop a public policy covers experiences including problems faced by men and women. The experiences and problems in this case are planning, implementation and monitoring, as well as evaluation of policies and programs in the economic, political, and social sectors. Thus, the aim of the GM is to ensure that men and women will enjoy the benefits of development equally. In addition, the application of the GM in various fields can also increase the effectiveness and efficiency of development, as well as ensure the quality of people's lives (Leimona *et al.*, 2013). This means that gender integration that will be discussed in this book is the equality of the roles of men and women in supporting the CCCD SCU Lampung project in the Way Khilau Sub-watershed, Lampung Province.

Besides, the discussion and recommendations of this report will refer to 3 CCCD Project outputs that must be achieved, namely: (1) Strengthening policy, regulatory, and economic instruments, (2) Strengthening institutions and individuals in managing land and watershed resources sustainably, and (3) Increasing understanding of global environmental values.

1.2. Purpose of Study

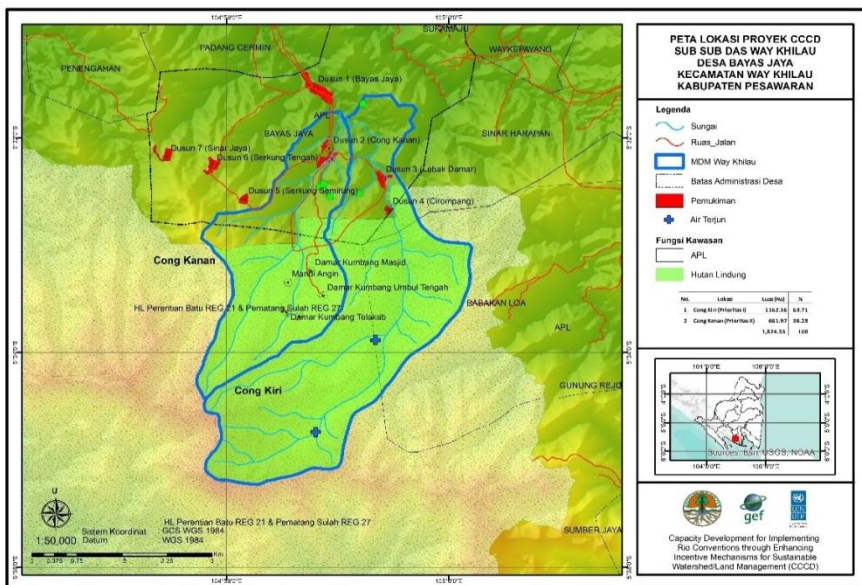
The purpose of this study is to analyze changes in gender mainstreaming patterns and socio-economic in Bayas Jaya after the intervention of the CCCD Site Coordinator Unit (SCU) Lampung Project.

II. METHODS OF THE STUDY

A. Location Description

1. Location and Time

Research location in Watershed Micro Model (WMM) or Model DAS Mikro (MDM) Way Khilau and Desa Bayas Jaya. As known that WMM or MDM Way Khilau has 1,824 ha area and Bayas Jaya village around 525 ha which has included as Sub Sub Watershed Das Way Khilau. Survey and data gathering conducted in August–September 2020.



Picture 1. Map of CCD SCU Lampung Project in Desa Bayas Jaya, Way Khilau Sub District, Pesawaran District, Lampung (Tim Proyek CCCD, 2020)

2. Physic Condition of Micro Watershed Model Way Khilau

The MDM location of Way Khilau is precisely in the Way Khilau Sub-watersheds with an area of approximately 600 ha. Most of this area intersects with Bayas Jaya Village, Way Khilau Sub-district, Pesawaran District. The boundaries of this village are: north of Tanjung Kerta Village, east of Penengah Sub-district, south of Register 21, and west of Babakan Loa Village.

It is known that Bayas Jaya Village is an expansion village of Sukaraja Village, Kedondong Sub-district. Bayas Jaya Village is located about 50 km from Bandar Lampung City and about 20 km from Gedong Tataan Sub-district, the capital of Pesawaran District. Bayas Jaya Village consists of 7 (seven) hamlets, namely Dusun Bayas, Lebak Damar, Cong Kanan, Serkung Sintuk, Cirompang, Sinar Jaya, and Serkung Tengos. In the field it can be seen that the last 3 (three) hamlets have relatively poor road access. The worst road access condition is at Sinar Jaya because it is steep and of compacted soil. Every rainy season, this area is very difficult to access, even by motorbike.

The road infrastructure reaching Bayas Jaya village has been paved up to Lebak Damar hamlet. It's different if you want to go to other hamlets, for example Cirompang, Sirtung Tengos and others, two-wheeled transportation is needed.

3. Infrastructures

Poor access results in the rising prices of primary goods (basic food) and they are quite expensive compared to prices in the city, for example the price of melon gas (3 kg) is IDR 30,000 per tube while in the city it is only around IDR 22,500 - 25,000.

Most of the people have received electricity facilities from PT. PLN (Persero). Meanwhile, telecommunication facilities are still not good because there is no telecommunication tower so the signal is not stable.

Furthermore, the water source and piping facilities are developed through PAMSIMAS. There is no particular institution for managing water sources and no special treatment has been done for the water conditions in Bayas Jaya Village.

4. Budget and Spending of Bayas Jaya Village

Based on Law No. 6 of 2014 concerning Villages, Bayas Jaya Village has the authority to compile village's budget and expenditure that are in accordance with the aspirations of the village management and community. Based on the Bayas Jaya Village Government Work Plan 2017 which is also used as the basis for the preparation of the Work Plan for 2018, 2019 and 2020, in Bayas Jaya Village there is a revenue budget of IDR 1,172,172,027. It is known that the main source of revenue for this village is the Village Fund Budget (ADD) from the central government (reaching 73% of total revenue). This means that, like other villages in Indonesia, Bayas Jaya Village's revenue is also very dependent on the allocation of central government village funds. In 2020 there is a lot of decline (around 30-40%) due to the diversion of funds for COVID19.

5. Economic Activities

The main occupation of the majority of Bayas Jaya residents is farming. The main agricultural business is plantation, especially in cacao. The cacao plantation area is about 360 ha (69% of the village area). Cacao is the village's main commodity and accounts for around 60-70% of the income of each household in this village.

About 45% of Bayas Jaya Village is included in the Register 21 Protected Forest Area, or about 275 ha. Many people also depend on protected forests. In Sinar Jaya hamlet there are around 170 families, and almost 70% of them have cultivated lands in protected forests. Farming in protected forest areas includes planting trees (for example medang wood), planting MPTS (Multi Purpose Tree Species) such as durian, candlenut, areca nut, avocado, etc. In protected forests, they also plant bananas, upland rice and corn as a strategy in maintaining the availability of family food.

6. Demographics

Based on the demographics still used by the village government until 2020, that is the 2017 demographics, Bayas Jaya Village has 986 households (3897 people), consisting of 1,942 men and 1,955 women. With an area of 525 ha, Bayas Jaya Village's

population density reaches 650 people/km². According to FAO (2009), a population density is considered high when exceeding 250 people/km². Similarly, according to Law no. 56/PRP/1960 concerning the Determination of Agricultural Land Areas, the condition in that village falls into the very dense category because it is more than 401 people/km². This means that Bayas Jaya Village certainly has high population pressure on land.

The majority of Bayas Jaya residents are Sundanese, coming from Banten Province. Pioneers of land clearing in this village came around the early 1970's. Other ethnic groups that can be found in this village are the people of Semendo (South Sumatra), the indigenous people of Lampung, the Way Lima sub-ethnic group, Kedondong as well as Javanese and others.

There are a number of 651 households in this village receiving assistance from Rastra (welfare rice), which was previously known as *Raskin* (rice for the poor). So it can be seen that more than 70% of the people of Bayas Jaya are poor.

B. Respondents (Village base)

The selection of respondents uses a quota system so that there are 3-5 respondents from one group. It is known that the CCCD program always included 20 groups so that the respondents of this study were 78 people. The determination of respondent samples from each group is as follows: 1-2 administrators and 2-3 members. The existence of 20 groups at the CCCD project site is the result or output of this project which has been running for 3 years. By selecting them as respondents, this study will reveal the impact of the CCCD project. At the same time, it aims to obtain input or recommendations for the next programs relevant to the 3 issues raised by CCCD.

C. Data and Information Gathering

1. Primary data

Primary data was collected through Focus Group Discussion (FGD) group representatives (Picture 2 and 3) while still paying attention to the Standard Operation Procedure (SOP) of Covid19. The FGD participants wore masks and washed their hands before the FGD started. Besides, groups asked to attend were also made in turns with the aim of paying attention to social distancing during the FGD. In addition, primary data was obtained by direct field surveys.



Picture 2. FGD with women group



Picture 3. FGD with men group

The FGD was conducted using a questionnaire guide for interviews and discussions. Data and information were obtained not only from respondents but also from the Bayas Jaya village government.



Picture 4. FGD with Local Government Unit of Bayas Jaya Village

2. Secondary Data

Secondary data was gathered from various sources relevant to the location of the Way Khilau Sub-watersheds, such as: a. data from 20 groups, b. demography socio-economic data, c. data on area and land allocation, d. data on 2017 budget and village development plans, and e. other relevant data.

D. Analysis Method

1. Descriptive Analysis

The data collected was then analyzed descriptively and described holistically referring to the Minister of Environment and Forestry Regulation Number P.7/MENLHK/Setjen/Kum.1/2/2018 concerning Guidelines for the Assessment of Vulnerability, Risk and Impact of Climate Change. In accordance with this regulation, the discussion will be made based on 3 of the 4 categories as follows:

1. Site level (in Micro Watershed Model)
2. Micro level (in Bayas Jaya Village)
3. Meso level (in District and Province)
4. Macro level (in National)

2. Analysis of Biodiversity and Agroforestry Management

These analysis have been done and will be described as ecological aspect of the report. Biodiversity analysis based on community's perception and opini, such as data of wildlife in community'agroforestry area, wildlife function. Another analysis is Agroforestry Value Index that mentioning respondent's statement about previous, recently and future condition of their agroforestry area.

3. Gender Analysis

The gender analysis used is based on the Gender Analysis Framework (GAF) approach or also known as the Harvard approach. The framework for this approach consists of a matrix containing data at the micro level (community and households). It is known that GAF measures include analysis of activity profiles based on 3 (three) roles or triple roles, namely: the public role with its various

productive activities, the domestic role with its various reproductive activities and the community role with its socio-cultural activities. In addition, this analysis also considers the existence of access and control profiles, as well as factors that affect access and control activities. In the gender analysis, there are 3 main data sets that need to be described in the discussion, namely:

- a. Who does what, when and where, and how much time is needed? This is known as the “Activity Profile”. Activities that will be analyzed i.e. in Agroforestry land and household’s domestic.
- b. Who has access and control (e.g policy making) to certain natural resources? This is often known as the “Access and Control Profile” Who has access to and control over “benefits” such as food production, money etc.
- c. Factors that influence the gender-based division of labor are access and control in the “activity profile” and also the “access and control profile”

This study also will analyze the gender roles on supporting family income, on institution strengthening, and influence factors to gender roles in Bayas Jaya village.

4. Knowledge, Attitude and Practice (KAP) or *Pengetahuan, Sikap and Praktis (PSP)*

The KAP or PSP analysis is also conducted based on a questionnaire guide. The respondents’ KAP was analyzed for its relevance to climate change, land degradation, and biodiversity. The respondents were also asked about the real programs or practices they have carried out and which are relevant to the three issues (especially regarding best practices).

5. Analysis of Payment for Environmental Services (PES) and Risk Potency

PES and risk potency has been analyzed in this study. These items predicted will be appear in CCCD – SCU Lampung.

III. RESULTS AND DISCUSSION

A. Importance Value of Gender to Support CCCD SCU Lampung

Based on the Presidential Instruction No. 9 of 2000, the definition of gender is the roles and responsibilities of men and women that occur due to social and cultural conditions of the local community. Furthermore, according to Shuaibu (2014) gender in forestry development generally refers to the division of roles based on the ability of men and women in practicing sustainable forestry and/or natural resource management based on local socio-culture. While in social system justice, a household institution is the smallest unit.

It is known that Lampung Province has issued Regional Regulation (*Peraturan Daerah* or *Perda*) Number 10 of 2011 concerning Gender Mainstreaming (GM) in Regional Development. Several programs have been implemented since the *Perda* was issued including the establishment of a Focal Point, or known as the GM Task Force, which is directly chaired by the Governor of Lampung. The GM Task Force has made outreach efforts for the Regional Apparatus Organizations (RAO) to compile a Gender Responsive Development Planning and also a Gender Responsive Budget.

Relevant activities have been carried out in Pesawaran District, by issuing District Head Regulation Number 15 of 2018 dated April 27th, 2018 concerning Guidelines for the Implementation of Gender Mainstreaming in Development. This District Head Regulation has been socialized to sub-districts as well as RAOs at the district level. The Pesawaran District Office of Women and

Children Empowerment then prepared a District Head Decree regarding the focal point and GM task force for Pesawaran District.

The CCCD project is a crosscutting project of 3 important issues in supporting environmental sustainability. The three issues include the preservation of biodiversity, climate change and prevention of land degradation or desertification. The achievement of a project will be optimal if it includes relevant stakeholders, based on not only their institutions such as the community, private sector, NGOs and government but also gender equality. Gender is the division of roles and tasks based on the positions of men and women. In fact, Men or women can be the main actors in forest management (Wulandari and Budiono, 2017).

The CCCD SCU Lampung project has been going on since 2018 and gender roles on every activity always be included. Therefore various changes in gender roles on their everyday life, particularly after intervention of this project. It is important to analyze various changes of gender roles in Bayas Jaya Village to develop a strategy to increase gender roles and can be continued even though the Lampung SCU CCCD Project ends in June 2021. In addition, it is to ensure that the implementation of the CCCD SCU Lampung project is in accordance with human rights principles, gender equality and women's empowerment, environmental sustainability, programs that are relevant to biodiversity conservation and sustainable natural resource management, mitigation efforts and adaptation to climate change, health, safety and working conditions of the community, cultural heritage, no resettlement or settlement programs, the existence of indigenous peoples as well as pollution prevention and resource efficiency.

B. Gender Roles on Land Management and Household's Domestic Activities

Keyoor and Subudhi (2019) inform the Vandhana Shiva's (a gender figure) statement that the preservation of nature depends on the existence of women managing it because there is actually a close correlation between development, ecology and women. Farming management in the family certainly requires the

involvement of all family members to improve the family economy. Farming management in a family will advance if there is good cooperation between father, mother, and children so that good family quality can be achieved (Liana, 2016). This research deliberately discusses all of these in order to prove that the CCCD SCU Lampung project does not have any negative impacts on human rights. Besides, it has also implemented gender equality in each of its programs, from the planning to the program monitoring.

Regarding the division of roles between men and women in the family, the following 2 tables (Table 1 and 2) are obtained from the analysis, namely the division of roles in land management and their domestic activities.

Table 1. Gender Roles on Land Management

activities	Roles Sharing (%)				
	Father	Together	Mother	Son	Daughter
Decision on Plants Species	55	20	21.2	3.80	3.8
Decision on Animal Farms	40	38	22	0	0
Decision on Marketing	50	33.2	11.8	1.2	3.8
Seed Preparation	51	29.6	9.2	6.4	3.8
Nursery preparation	49	31.9	11.2	5.1	3.8
Land preparation	60	22	16.8	1.2	0
Planting	51	28.6	12.8	6.4	1.2
Manure	51	31	11.6	6.4	0
Weeding	49	23.2	22.8	3.8	1.2
Harvesting of horticulture	30	46.3	9.6	7.7	6.4
Drying	38	42.9	11.2	5.1	3.8
Collected of livestock feed	80	10	10	0	0
Feed Livestock	60,8	18	20	1.2	0
Clean the Cattle Sheds	64	16	20	0	0
Repairing Cattle Sheds	60	13	17	0	0
Sowing Fish Seeds	85	3	12	0	0
Fish Ponds Care	69	14	17	0	0
Feeding Fish	78	8	14	0	0
Harvesting (trees)	70	14	16	0	0
Marketing	49	37	14	0	0

Research on gender in agroforestry management has been conducted by Hafizianor *et al.* (2015), which is about the roles of men and women in decision making on agroforestry management. Puspasari and Sariffudin (2015) has also analyzed the role of gender in improving community welfare and preserving natural tourism. Research on the role of women around the forest in improving the family economy has also been carried out by Haryanto (2018). On the Table 1 it can be seen that although the majority of activities are carried out by men, in fact husbands and wives cooperate with each other in carrying out all their land management activities. They cooperate with each other but have a different percentage in each activity. Of all respondents, 55 % of the men, 21.2 % of the women, and assisted by 3.8% of their daughters played a role in making decisions in determining the types of plants on their family's managed lands. Thus it can be said that around 20% of the respondent's families make decisions jointly between husbands and wives in determining the types of plants and the woman determined another 8%. For the marketing of land products, 50% of the men and 11.8% of the women of the total respondents made the decisions. There is gender equality in 33.2% of the respondent's families in determining the marketing of their land products. This also happened when the family went straight to marketing.

Alao and Shuaibu (2013) stated the forestry sector is a sector dominated by men because its activities are dangerous and require large amounts of energy, so that women's participation in forestry development is low. Although women's participation is low, the role of women in the decision making on farm management cannot be ignored (Kirana, 2018). Women contribute a large enough share in the workforce in terms of making decisions on various policies regarding family farm management (Wulandari and Inoue, 2018).

In Bayas Jaya Village, around 38% of respondents made decisions about livestock types based on joint decisions of husbands and wives. Of the various land management activities presented in the Table 1. It can be seen that the most obvious division of roles between men and women is when they carry out harvesting and drying activity of their forest or agriculture products, namely 46.3%

of men and 42.9% of women do this activity. Since the majority of Bayas Jaya residents are Sundanese who like to raise fish, it can be seen in Table 1 that this project also provides support for the development of fish farming in ponds which is mostly done by men. The existence of types of activities carried out jointly between men and women and relevant to natural resource management proves that the CCCD SCU Lampung project always pays attention to human rights, gender equality, the health and safety factors of women and children as well as working conditions in the location. It also proves that this project pays attention to the existing cultural heritage, namely that women work according to their nature (which does not require a lot of energy or physical work).

According to Abidin (2018), there were several activities in 2018 that were not carried out by women, namely land cultivation, weeding and house repair, and absolutely no livestock and fisheries activities (either carried out by women or men). There is a gender role but it is dominated by men, namely in planting and fertilizing (Abidin, 2018). It can be said that during the 2 years of the CCCD SCU Lampung Project, gender roles have increase around 45% because more diverse the types of activities carried out by women.

Furthermore, the division of the roles of men and women and children for domestic activities of the respondent's households can be seen in the Table 2. It can also be learned that the majority of men's role is in activities that require muscle strength and also those requiring a large amount of funds, for example 57% of men collect water, 70% take firewood, 87% repair houses and 57% provide their family's water and health fund.

Table 2. Sharing of Gender Roles in Household's Domestic Activities (%)

Domestic Activities	Father	Mother	Son	Daughter
Water collection	57%	28%	10%	5%
Fuelwood	70%	15%	13%	2%
Food preparation	25%	69%	1%	5%
Family's Clothes preparation	20%	72%	3%	9%
Children Care	38%	57%	4%	1%
Health Funds	57%	23%	8%	12%
House Cleaning	36%	43%	9%	12%
House reparation	87%	3%	9%	1%
Go to market for family daily needs	38%	57%	0%	5%

As for the role of the children, the percentages are almost the same as their mothers and fathers. Particularly for the domestic activities, sons and daughters were there to help, although this did not happen to all of the respondent's families. In water collection activities, there are 10% boys and 5% girls who help their fathers fetch water, so there are about 85% of the respondent's families who are not helped by their children. This condition same as 2018 condition where men has dominance position at all activities except on several domestic activities and base needed of the family (Abidin, 2018). In 2020, gender roles increase (around 15% - 20%) in carrying out domestic activities because women also help houses repairing and shopping becomes the dominance of women (in 2018 this activity was dominated by men). In addition, in 2020 there was gender equality in 100% of domestic activities, in 2018 there was only about 60% gender equality because there were 5 activities that were initially only carried out by women or men only.

C. Gender Roles on Access and Control to Natural Resources Management, Benefit and Community's Social

Up to now men has dominance at almost all item on access and control in Bayas Jaya, particularly to natural resources management, benefit and community's social. Except on family's saving and provide a base needs, the respondents has equal position between mother and father. It is equality between men and women on training and income sources also politics, specifically right to be

elected and to vote, and status in community (Table 3). Gender analysis relevant to access and control to Natural resources as shown in Table 3. Differentiate of those condition to 2018 is women got access village's politic even still be dominated by men. The difference with the 2018 study results is the control that obtained by women on savings resources and political power, especially positions in society that are equivalent to men in 2020, previously these two aspects were dominated by men. Access and other controls were still dominated by men in 2018 and 2020. This means, gender roles increase in control of natural resources by 14%, while access remained the same between 2018 and 2020.

Table 3. Access and Control between Women and Men on Natural Resoirces Management, enefit and Community's Social in MDM Way Khilau

	Access		Control	
	Women	Men	Women	Men
Sources :				
• Money/Cash	1	1	1	2
• Production tools	1	1	1	2
• Land	1	1	1	2
• Education	1	1	1	2
• Training	1	2	1	2
• Saving	1	1	1	1
Benefit :				
• Education	1	1	1	2
• Income sources	1	2	1	2
• Basic Needs	1	1	1	1
• Property Right	1	1	1	2
• Village Politics				
1. Vote/Opinion right	1	1	1	2
2. Involve in social groups	1	1	1	2
3. Authority on Society	1	2	1	2
4. Right to be elected and to vote	1	2	1	2

Remarks: both of them has no activities (0: 0); one of them has activity and others none (1: 0); they have activities dan roles (1:1); one of them has higher authority (1:2)

D. Status of Community Knowledge, Attitude and Practice (KAP) on Supporting the Achievement of CCCD SCU Lampung

1. Status of Community's Knowledge on Climate Change, Biodiversity and Land Degradation

Based on respondents' knowledge, they do not know well yet about climate change (52.33% out of total respondents) and biodiversity (40.25% respondents). They know that higher temperature or decreasing of biodiversity will have negative impact to the environment but actually they do not know the symptoms, and or process of climate change also biodiversity loss. It could be happened due to the negative impacts have no directly influence to their living condition (Larson et al., 2015). It is different with knowledge of land degradation because there are 67.4% has known already (or only 32.6% do not know). The condition may occur because people carry out land management activities that have an impact on land degradation and they immediately got the consequences, e.g. landslides (Parapasan et al., 2018).

In 2018, an analysis results on climate change knowledge said that respondents were "aware" to climate change situation but level of knowledge had not been indicated yet. In 2020 there were 33.33% female respondents, and there is no same data in 2018. It is known there were 47.77% knowledge about climate change (in 2020). For knowledge of biodiversity, in 2018 respondents knew the concept, but there were 53% did not know the benefits of preserving wildlife or animals. In 2020 there were 40.25% who had not known yet biodiversity knowledge. Its meant knowledge of biodiversity increase up to 12.75%. Meanwhile, knowledge of land degradation has almost the same percentage, namely 67% in 2018 and 67.4% in 2020.

2. Status of Community's Attitude on Climate Change, Biodiversity and Land Degradation

In general, it can be said that there was an increase of 20% in the respondent's agreement with the statements relevant to the 3 cross cutting issues. In 2018 there were statements that were not

approved and in 2020 all statements were approved by all. This increase was made by respondents whose number of women was 33.33% of the total. The 2018 study found no data on the number of female respondents.

The order of community approval in 2020 for the 3 (three) statements relevant to climate change is as follows: Climate change causes the decrease in quality of harvest/forest products (score 345), Climate change results in changes in air temperature (score 331), One of the solutions to climate change is through the role of the MPTS trees (score 331).

In 2018, respondents strongly agreed to the 3 climate change statements. Thus, it can be interpreted that in 2020 respondents will be able to distinguish which one is more relevant to climate change among the 3 statements. Similar conditions are also found in respondents' attitudes towards cross cutting issues of biodiversity and land degradation. In 2020, respondents who are the people of Bayas Jaya Village have also taken a step further because they can distinguish which statements have more influence on biodiversity and land degradation. In 2018 they only said they disagree, agree or strongly agree. The sequence of statements approved by respondents in 2020 related to biodiversity is as follows: It is necessary to make efforts to protect animals and plants (score 355), Public knowledge affects local biodiversity (score 335) and there is a decrease in the number of certain animal or plant species if there is an increase in other species (score 330). As for attitudes towards land degradation in 2020, respondents agreed that harvesting forest products must comply with regulations (score 380), It is important to prevent erosion (score 330), and Agroforestry is important in supporting soil and water conservation (score 323).

3. Status of Community's Practices on Climate Change, Biodiversity and Land Degradation

Another positive impact of the CCCD SCU Lampung project in Bayas Village is, namely: although the level of community knowledge is not sufficient, there have been community practices in overcoming climate change, decreasing biodiversity, and land

degradation, either individually or collectively. The following are the practical efforts they have made, namely: planting or protecting existing plant species (72%), conducting patrols to prevent illegal logging (11%), carrying out socialization or counseling on the 3 CCCD issues in groups (7%), controlling over the existing plants, for example by fertilizing or eradicating pests (7%) and adopting an energy-efficient lifestyle (the use of firewood) in the family (3%).

In 2018 it was known that 85.50%-89.93% of respondents stated that there had been no collective practical efforts to mitigate climate change and protect biodiversity both animals and plants and 81.41% had not adapted to land degradation. In 2020, there has been a significant increase in practices, namely: 99.4%-99.7% of respondents have made collective efforts to mitigate climate change and conserve biodiversity, and 99.1% of respondents have practiced collectively in tackling land degradation. Thus it can be said that the CCCD SCU Lampung Project (2020) has succeeded in improving the practices of the Bayas Jaya community by 99.1%-99.7% on the 3 issues that are the mandate of this project. This was stated by respondents, 33.33% of whom were women.

4. Recommendations on Development of Practices, Attitude and Knowledge of Community on Climate Change, Biodiversity and Land Degradation

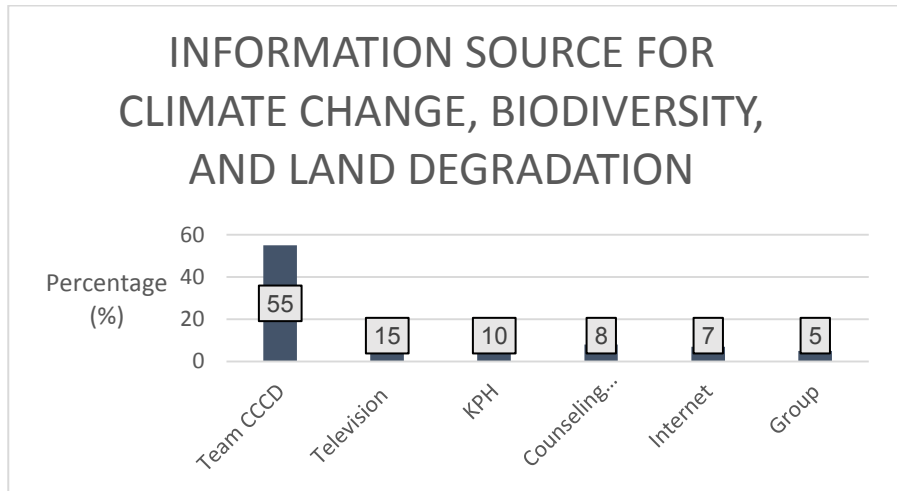
In order to increase the knowledge of the Bayas Jaya community about climate change and biodiversity, the CCCD SCU Lampung Team can do it through programs that have been carried out by the community so far. Some efforts that have been implemented by the Bayas Jaya community so far can be recommended to be carried out simultaneously, namely:

1. planting or protecting the existing plant species. This program can be done through socialization or brief outreach on protected plant or animal species, as well as knowledge of why these species are protected in relation to the 3 issues raised by CCCD. The planting program should be carried out regularly, for example per month (large, medium and small scales) and preceded by socialization or counseling. So the material of

socialization or counseling is not only related to the main material, namely planting. The provision of material for the community repeatedly is needed so that the community can have a good understanding of the 3 CCCD issues because the provision of material is not done instantly.

2. Home industry, agroforestry, agrosilvofishery, agrosilvopasture are implemented as Number 1, from planning, maintenance to marketing.
3. A socialization or outreach program on the 3 CCCD issues for all Bayas Jaya people can be carried out regularly at the same time when there is the implementation of a planting program (No 1) or other programs mentioned in Number 2. Socialization and extension material can be added with the issue of energy-efficient lifestyle including the use of firewood and also Pokdarwis programs, including community-based ecotourism development, environmental sanitation, waste processing, waste banks and others

E. Community’s Information Source on Climate Change, Biodiversity and Land Degradation



Picture 5. Information source on climate change, biodiversity and land degradation in Bayas Jaya

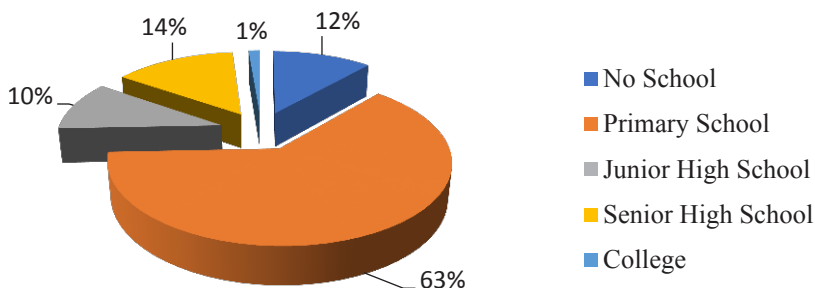
During the FGD, the data collection revealed that 55% of respondents said the CCCD SCU Lampung team was the source of information that was relevant to all community knowledge on issues of climate change, biodiversity and land degradation. The other sources of information are television (15%) and Forest Management Unit or FMU or KPH (10%). Thus it can be said that the CCCD SCU Lampung Team plays an important role in increasing public knowledge. This means that it is highly recommended for additional in-depth community knowledge and through structured socialization or extension efforts, especially on the 3 issues that have been raised in the field. It can be said, therefore, that the majority of the community believes that the CCCD SCU Lampung project always provides useful information so that there is no negative impact on all land management processes.

F. Community's Socio Economic Status

1. Education

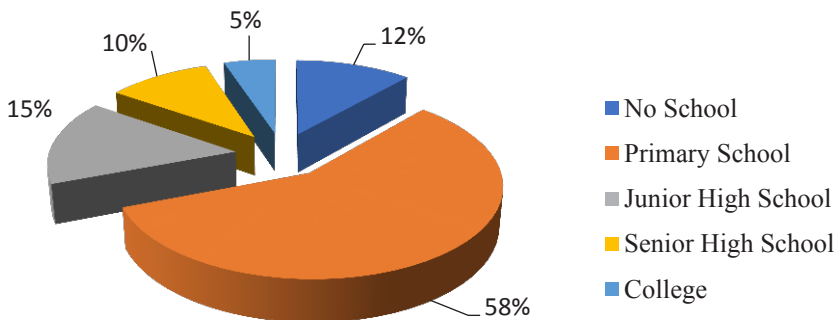
The majority of the married-couple respondents are elementary school educated, namely 63 % husbands (Picture 5) and 58% wives (Picture 6) of the total number of respondents (78 people). Thus it can be understood if the results of the level of public understanding will not be as expected, because the level of education affects the level of knowledge and understanding of the community (Wulandari and Inoue, 2018). Data of spouse education of respondents as shown below:

the proportion of husband's education



Picture 6. Percentage of Education of Husband's Respondents

Wife's Education Percentage

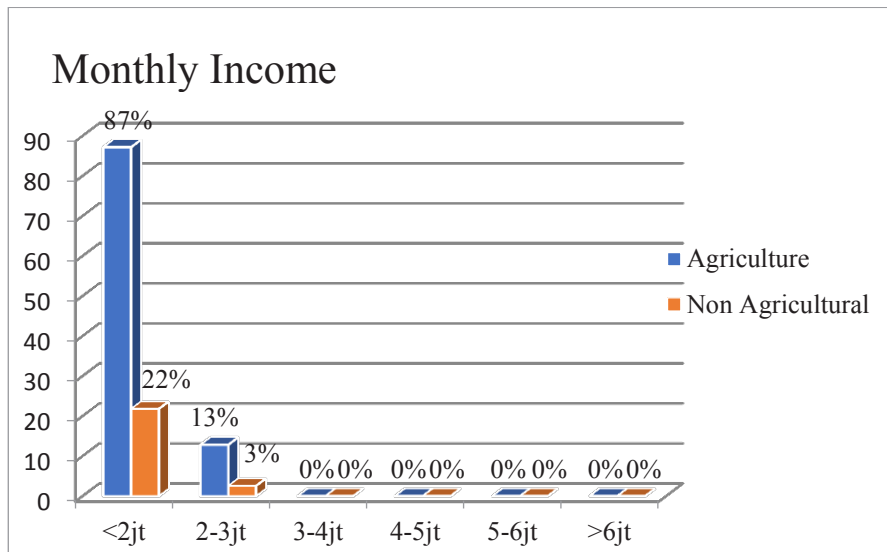


Picture 7. Percentage of Education of Wife's Respondents

3.7.1. Community's Income in Bayas Jaya Village

A project will be able to achieve its objectives and can be sustainable if the community participating in the project has adequate socio-economic conditions. The following is the socioeconomic status of CCCD project participants who are

members of 20 groups whose formation has been facilitated and given twice grants (2019 and 2020) to carry out their group programs.



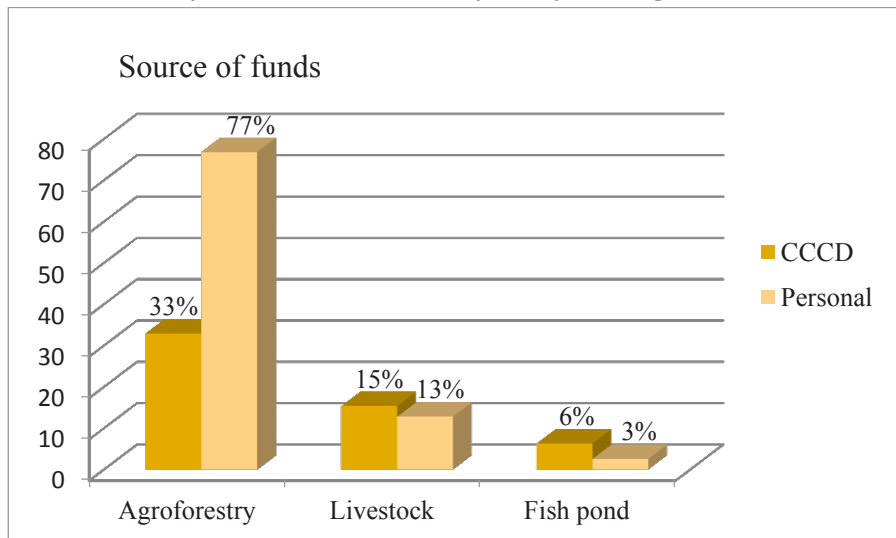
Picture 8. Community’s income per month in Desa Bayas Jaya

It is known that most (87%) of the respondents have an income around IDR 1.5 million (or juta) per month from agriculture and the other 13% have an income of IDR 2-3 million per month. Furthermore, 22% (out of 87% above) said they had income from non-agriculture, for example from labour, trader. In 2018, there is 78% of them have income source from agriculture and 22% non agriculture (Abidin, 2018). Its meant, around 9% of them move from non agriculture only to both income’s source (agriculture and non agriculture).

People at the CCCD SCU Lampung project sites carry out agroforestry activities in state forests and customary forests, and also carry out livestock and fisheries activities in customary forests supported by grant funds from the CCCD SCU Lampung Project. Based on the results of the further analysis in 2020, it is known that the community members and administrators of the 20 farmer groups have an average income potency per capita of IDR

16,984,327/year (or IDR 1,415,361 per month) from agroforestry managed lands, husbandry and fish. Operational cost in 2020 is IDR 1,142,339/year per household for buying e.g. manure, insecticide, seeds. Its meant, nett income prospect per capita is IDR 15,841,988 (IDR 1,320,165 per month per capita). Meaning of income potency is income of respondents if they can sell and produce all cattle, fish also agroforestry products. Operational cost in 2020 for buying manure, seeds etc is IDR 1,142,339/year. Based on 2018 study results, community's in Bayas Jaya has IDR 6,605,028/year per capita or IDR 550,419 per month (Abidin, 2018). It can be said that 2018-2020 community income increase significantly IDR 769,747 or more than 100%.

3. Community's Fund Source in Bayas Jaya Village



Picture 9. Community's Fund Source on Land Management

Funds used to manage their lands in an agroforestry manner, both in state forests and in customary forests, mostly came from private funds and some from the CCCD SCU Lampung Project of 33%. While the funds from the CCCD SCU Lampung Team to manage livestock (15% out of f 28%) and fisheries (6% out of 9%) combined with agroforestry are greater than their personal funds.

Its meant around 41% project funds has supported all community efforts to increase their welfare and always consider to natural resources sustainability. In 2018 community has no receive any project funds due to just started.

4. Gender Roles on Supporting Family's Income

Currently, there are 6 Forest Farming Women Groups (*Kelompok Wanita Tani Hutan* or KWTH) formed by the CCCD SCU Lampung Project Team, namely: KWTH Melati (16 members), KWTH Mawar Jaya (20 members), KWTH Mawar Merah (18 members), KWTH Melati Jaya (15 members), KWTH Bunga Anggrek (16 members), and KWTH Berkah Jaya (18 members). The six KWTHs have been facilitated by the CCCD SCU Lampung Project to obtain the funds for the development of their economic businesses twice in 2019 and 2020, except for KWTH Berkah Jaya. This group has only received grant funding once because it was just formed in 2019. The business of these groups based on the Decree of the Village Head of Bayas Jaya Village are:

1. KWTH Melati : Banana crackers (spicy and salty), cassava and taro chips, wajik legit, Jengkol chips, and ground coffee.
2. KWTH Mawar Jaya: Ground coffee, hydroponic plants, banana chips, taro, breadfruit and cassava.
3. KWTH Mawar Merah: Banana crackers (spicy and salty), cassava and taro chips, wajik legit, Jengkol chips, and ground coffee (Sintuk).
4. KWTH Melati Jaya: Cassava chips, banana chips, sweet lunkhead, dapros crackers, pumpkin dodol, coffee cross
5. KWTH Bunga Anggrek : Ground coffee, hydroponic plants, banana chips, taro, breadfruit and cassava.
6. KWTH Berkah Jaya: Banana gipang, coconut kremes, pumpkin toothpaste, banana chips, sweet potato and taro, pickled buut.

The women who are members of the 6 KWTHs plan to be able to continue to increase sales of their groups' products so that they can support the economy of their families. Based on the results of interviews with group members, even though they had received two grants from the CCCD SCU Lampung project, they were only able to generate an average net income for the groups from selling various chips of around IDR 450,000 to 850,000 per month. According to them, some of the income was returned as capital, some was saved in the group treasury, and some was to increase the capital turnover in the following month. Until now, no funds from the KWTH business have been distributed to group members. The group income is still minimal because the scale of sales/marketing of the products is still very limited, that is in this village itself and the surrounding villages, besides that since the COVID19 pandemic, the marketing of group products has decreased considerably. Actually, the KWTH in Bayas Jaya has not one year operationalize yet, due to only several months in 2019 and have COVID19 pandemic start to March 2020. Based on this condition, its logic can be said that the income of KWTH up to September 2020 has not succeeded yet in supporting the economy of the families of its members.

However, it can be said that there is a prospect of economic support from housewives to their household income of around 7-10% per month. In developing the marketing of the products of KWTH, during the COVID-19 period, it can be recommended to create a CCCD SCU Lampung Project website so that it can expand the online marketing network. When COVID19 is over, intensive meetings can be held with marketing networks at the Pesawaran District and Lampung Province levels. In addition, it is necessary to continue to carry out trainings to improve the quality of KWTH results, including the packaging.



Picture 10. KWTH Melati Jaya



Picture 11. KWTH Berkah Jaya

It is known that there are 5 community business clusters (groups) in Bayas Village whose types of activities and business present the 3 issues: climate change, biodiversity and land degradation. The home industry cluster working on various food products with raw materials from around the living area and village, for example cassava and bananas, will have an impact on positive community efforts to manage the sustainability of the surrounding conditions. Agrosilvofishery and agrosilvopasture activities also make the people of this village behave the same because they need enabling conditions so that their efforts in these 2 programs are successful. For example, for good and sufficient goat feed they need lots of good quality grass. Besides, they also need good quality and adequate water for their fish ponds. In supporting the success of *pokdarwis* and *pokdarling* activities, it is also necessary to have good quality, beautiful and healthy environment. Based on all that, it can be proven that the 5 clusters in Bayas Jaya Village will be able to support the achievements of the CCCD SCU Lampung Project. Herewith 5 cluster that develop in Bayas Jaya, namely:

1. Home industry cluster (KWTH only) consisted by 6 KWTH organizations. Member of KWTH is 100@ woman. Each KWTH will support their family income around 5%-7% per month.
2. Agrosilvopasture cluster i.e. 10 KTH and each KTH has 5%-6% woman members. Those 10 KTH as follows:

- a. Andan Jejama cluster: KTH Cirompang Jaya, KTH Cirompang Lestari, KTH Indah Jaya, KTH Kolar Jaya, KTH Wana Jaya, and KTH Mekar Jaya I. They got another 19 goats in June 2020 (initially they have 35 goats)
- b. Setia hati cluster: KTH Anugrah Tani, KTH Hidayah Tani, KTH Maju Tani, and KTH Lestari Rakyat. They got another 8 goats and initially only 24 goats.

Price of each lamb is IDR 500,000–1,500,000. They have agreement that they will sell lamb only. Setia Hati cluster earn IDR 4,000,000 – IDR 12,000,000 dan Andan Jaya got IDR 9,500,000 – IDR 28,500,000 when they sell the lamb.

In Andan Jejama cluster has agreement that they will divided of benefit from sale the lamb as follows: 45% for 6 groups, 45% for persons who manage the cage, and 10 % for operational cost. Also they agreed that 45% will distribute to cash group around 75% and 25% for members.

Based on those condition, Andan Jejama cluster will earn IDR 10,000 – IDR 30,000/ lamb and Setia Hati cluster get IDR 6,000 – 17,000/lamb. It will support their family income around 0.7% - 21% per lamb for Andan Jejama and around 0.4% - 1.2% for Setia Hati. Both of them have same internal rules on silvopasture management.

3. Agrosilvofishery cluster: KTH Damar Kubang and Indah Makmur. Each group has woman member 5%-6%. KTH Indah Makmur earn IDR 2.770.000 after sell 135 kg catfish. The KTH Damar Kubang succeeded sale 225 kg catfish and get IDR 4.500.000. Its meant, each member of KTH Indah Makmur will get IDR 110,000 due to this group has 25 members. Another KTH, Damar Kubang (25 members) earn IDR Rp 180.000 per orang. Therefore each member of KTH Indah Makmur will support 8% for their family income from agrosilvofishery and di KTH Damar Kubang amounted 13%,

Both KTH will change the kind of catfish to be tilapia and gourami due to Lele is not suitable to develop in Bayas Jaya. Catfish requires a lot of feed so it requires a lot of feed and maintenance funds. Tilapia and gourami can be fed in the form of

taro leaves and papaya leaves. Currently, fish sales are still sluggish due to COVID19.

4. Pokdarling Cluster

The head of Pokdarling is a woman and the percentage of female members and administrators is also high, namely 53% (24 women from a total of 45 members and administrators). In addition to receiving a grant from the CCCD SCU Lampung Project, Pokdarling already has income from the sale of ashtrays and coconut shell crafts and composting. The results are currently very minimal, around IDR 100,000 - 150,000/month. There is no routine income for members from Pokdarling activities due to income is still minimal.

5. Pokdarwis Cluster

The number of female members and administrators in Pokdarwis is 46% (16 women out of a total of 35 women). Thus it can be said that the gender role in Pokdarwis is quite high. Pokdarwis also received CCCD SCU Lampung project grant twice in the amount of IDR 18,000,000 and IDR 60,800,000 to support the development of 3 leading tourist sites in Bayas Jaya Village, namely Batu Perahu, Kusuma Sari and Kusuma Jaya. Currently, Pokdarwis does not have any income other than grants because all tourist locations have not yet started to be charged an entrance fee. It is planned that the determination of ticket prices will be outlined in a tour package and based on a Village Regulation.

5. Gender Roles on Community's Institution in Bayas Jaya Village

A Bayas Jaya Village Community Institution which is engaged in agriculture, including forestry and agroforestry, is the Gapoktan Hutan Lestari. In this institution, there are 30% women who become its administrators. Thus it can be said that the gender role in Gapoktan Hutan Lestari is quite important. In Bayas Jaya Village, there are also 4 KWTH administrators who become important figures in the Village Community Institution.

Four women who has important status in village institution, namely :

- a. Mrs Sri Handayani (Head of KWTH Melati) become Head of Empowerment of Family Welfare or *Pemberdayaan Kesejahteraan Keluarga* (PKK) Bayas Jaya village
- b. Mrs Nur Asiah (Head of KWTH Berkah Jaya) become Village Consultative Council Members or *Badan Permusyawaratan Desa* (BPD)
- c. Mrs Rita Rahayu (Treasurer of KWTH Melati) become Head of Cirompang hamlet
- d. Mrs Patmawati (Head of KWTH Bunga Anggrek) become Head of Hope Family Program or *Program Keluarga Harapan* (PKH) This means that by holding the four mothers in the Village Community Institution, there are 22%% of women's roles in the Bayas Jaya Village Community Institution.

The percentage of the number of women who become administrators of Village Community Institutions including Gapoktan Hutan Lestari is 22%. This proves the results in Table 3. on the Role of Gender in Access and Control of Natural Resources, specifically on political power in social society. In the table, it can be seen that women and men both have activities in 4 (four) activities in political power, namely: voicing/expressing opinions, being involved in social groups, positions in society, voting rights and voting. The percentage of gender roles of 22% can be said to be logical because from Table 3 it can be seen that men remain dominant in all access and control of political power, even men have more roles than women in all activity controls and are also dominant in 2 accesses. activities, namely positions in society and the right to vote.

G. Influence Factors on Gender Mainstreaming in Bayas Jaya Village in CCCD SCU Lampung Project

Based on the FGD, depth interviews and the results of the questionnaire, it can be concluded that there are internal and external factors that influence gender roles in managing natural resources including forest resources in the CCCD SCU Lampung Project location. Internal factors that influence are: (1.) women's

perceptions of themselves, (2.) women's knowledge of forest sustainability, (3.) forest utilization rates, and (4.) family social status. While, the influential external factors are: (1.) community perceptions of the role of women in managing forests, (2.) the length of time that husbands have been members of KTH.

Perception is defined as a person's view or understanding of something where everyone sees things differently from one another (Pratisti et al., 2012). Perception is formed through a process and influenced by many things. A person's perception underlies his behavior, so that changing one's behavior towards a goal can be facilitated by understanding the current individual's perception of something (Leavitt, 1997). This was proven when there was an FGD in the field. Most of the female respondents stated that their role in managing the land was for light things, such as planting and harvesting chilies, helping to harvest candlenuts, cacao, and not looking for grass to feed goats. In addition, they also stated that they did not have sufficient knowledge, for example about how to manage fish ponds. Another influential internal factor is the level of forest utilization, for example the forest is managed intensively because it is a customary forest (not a state forest), it will require solid cooperation between husband and wife in order to get optimal results. Furthermore, the social status of a family is influential because the higher the social status, the less the needs from the forest products, so the role of women can be minimal.

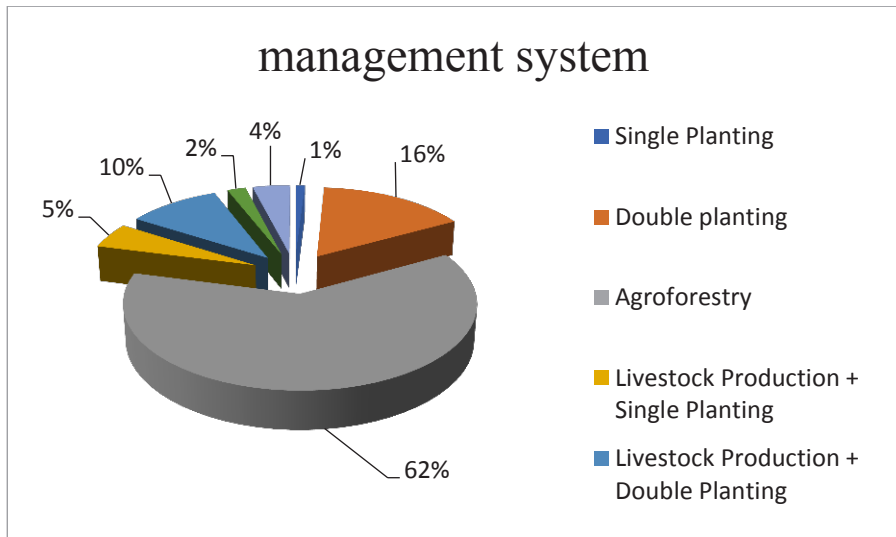
The external factors affect gender roles in managing natural resources because the community has a perception that it is men who should work in the forest so that the role of women is small. If a man has just become a member of a group, of course the level of his knowledge is not sufficient. It influences knowledge and skill sharing with his wife so that she will help but only as much as she can because of limited skills and knowledge.

H. Ecology Status in CCCD SCU Lampung Project

Based on the results of a survey in Bayas Village of the management and members of 20 groups that have participated in and received grants from the CCCD Project, several important things were found as follows:

1. Land Management System in CCCD SCU Lampung Location

Most of them manage their land according to agroforestry (63% of the total respondents), some manage the land as areas for similar crops on other parts of the land (1%), or mix with livestock (15%) and fish (6%). It has proven, actually that community in Bayas Jaya has action to adapt and mitigate the climate change even they have no aware to the positive impacts of their action on this matter.



Picture 12. Community's Land Management System

2. Status of Community's Land Management

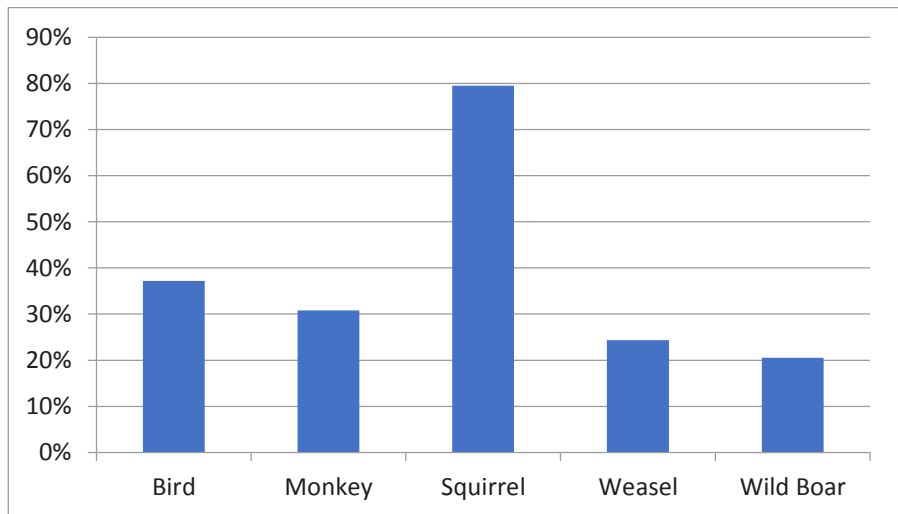
Amounted 63% of the area under the management of Bayas Village people belongs to state forest. Amount 71% is managed their private (marga) forest (Table 4.). It means, part of community in Bayas Jaya do in both land i.e. in state and private forest.

Table 4. Land Management Status

Land Status		Percentage %
Hutan Marga (Private Forest)	private	53
	rent	0
	benefit sharing	6
	partnership	12
State Forest		63

3. Animal in Agroforestry Area in CCCD SCU Lampung Project

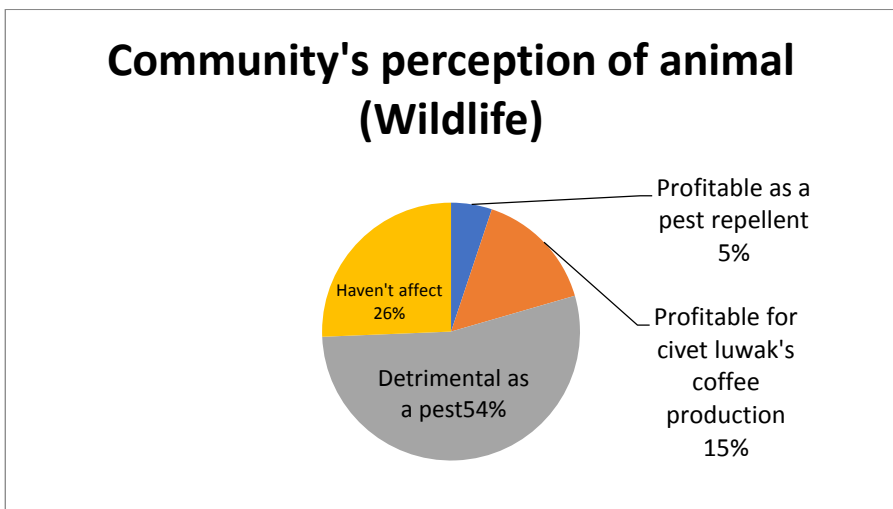
From the acknowledgment of the respondents, in the CCCD project area there were many squirrels (informed by 72% of respondents), as well as various types of birds (32%), monkeys (29%), civets (24%) and pigs (22 %). These five species are the animals that people encounter most frequently, meaning that at the CCCD SCU Lampung project site there are more than 5 species of animals. Based on research results of CCCD SCU Lampung Team (2018), founded honey bear, binatang pangolin, porcupine, tapis and bats. Bear paw prints founded in cacao plants, hedgehog trail and dan pangolin trail also bats found in gate cave in Batu Perahu,



Picture 13. Animal that Founded in Agroforestry Area

4. Community's Perception on Wildlife

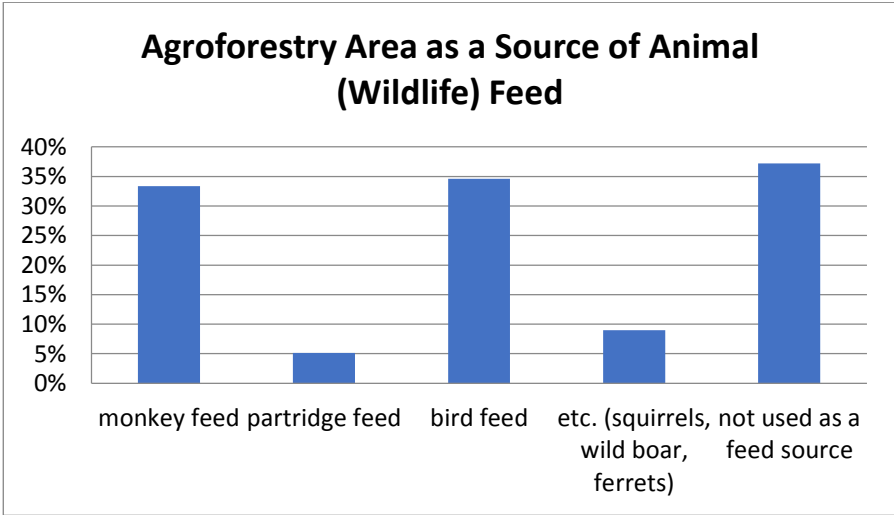
The presence of these animals in the CCCD project area raises various perceptions of the community. Based on the Picture 14 below, 54% of the people said that the animals in CCCD locations were pests and 20% said they were profitable. The majority of perception that animals are pests means that the community in the CCCD location requires counseling or socialization about the function of the existence of animals for the balance of the ecosystem in a forest area.



Picture 14. Community's Perception on Wildlife

5. Animal's Feed Source

Regarding the correlation between managed land and the diversity of animals in the environment, 33% of respondents stated that their lands became a source of food for monkeys, 5% for wild chickens, 35% for various kinds of birds, 9% for other animal species such as boars and squirrels (Picture 15). There are 37% of respondents saying that no animal takes any food from their lands. The important thing that needs to be noted here is that people's knowledge that land is a source of animal feed does not necessarily have a positive impact because around 54% of respondents stated that all animals that enter their land are pests so they need to be evicted or even killed.

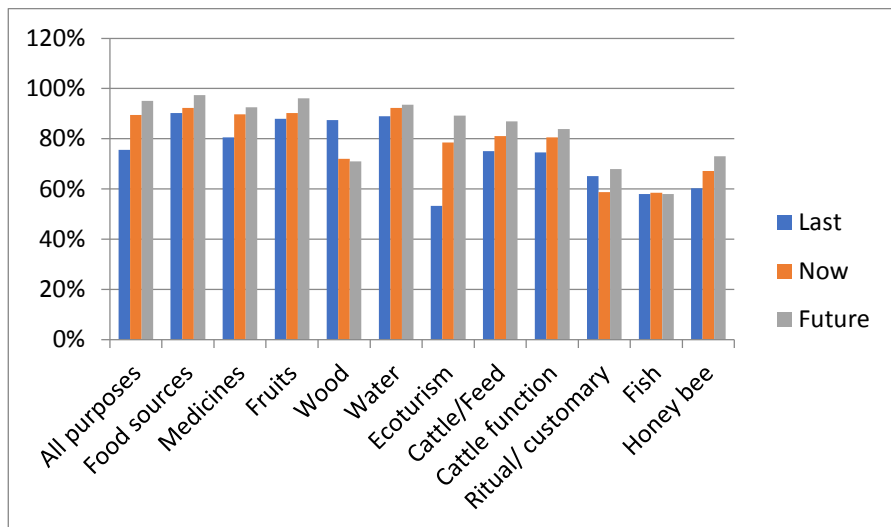


Picture 15. Agroforestry Area as Source of Animal (Wildlife) Feed

I. Agroforestry Importance Value

The positive impact of the CCCD SCU Lampung project in Bayas Village was the community's perception and knowledge of the function of agroforestry on their managed lands. Based on the bar chart in Picture 14 it can be seen that 11 important values of agroforestry in Bayas Village have increased and the most significant increase is the importance of recreation or agro-tourism. One important value of agroforestry that has decreased is the use of timber because the community is more aware of the law so that they no longer cut the trees. Thus, it can be seen that the implementation of the CCD SCU Lampung project takes into account the existing customs, is able to make the Bayas Jaya community more committed to preserving the existing natural resources, and striving to improve their welfare while still paying attention to soil and water conservation and biological resource preservation. The gender roles in each important values of agroforestry are as follows: utilization of non-timber forest products (food sources, medicines and fruits) is around 69% each, utilization of timber forest products is around 15%, provision or preservation water is around 28%, ecotourism development is around 46%, wildlife habitat preservation is 10%, livestock use is

around 12%, customary use is 12%, fish ponds is 14%, and honeybee is 13%.



Picture 16. Agroforestry Importance Value in Bayas Jaya Village
 Remarks: Criteria of Agroforestry Importance Value:
 Not very important (0-20%), Not important (21-40%),
 Fair (41-60%), Important (61-80%), Very important (81-100%)

Based on the results of the field survey, this is logical because since the presence of the CCCD SCU Lampung Project, Bayas Village has several tourist sites that have begun to increase in visitors, including Batu Perahu, Waterfalls of Kusuma Sari and Kusuma Jaya. The CCCD SCU Lampung project give Pokdarwis Andan Jaya amounted IDR 60,800,000 for developing the facilities and infrastructure in Kusuma Sari dan Kusuma Jaya. It is significantly gender roles (46%) in community based ecotourism that conducted by pokdarwis activities.



Picture 17. Kusuma Sari Waterfall



Picture 18. Kusuma Jaya Waterfall

Other important value enhancers are sources of food, fruits and medicines. In the field, we can find that there are people, both men and women who collect candlenuts from the forest to be sold to the market, or people who take bananas which are then sold through intermediaries who are also members of their own group. People sometimes also harvest lemongrass which is often found in the forest, especially around the candlenut trees and it is by 69% gender roles.

J. Incentive Development in Bayas Jaya Village

Incentives are a form of appreciation and will be given to a party for their performance, and it is hoped that it will encourage them to maintain their performance so that it remains good into the future. Incentives can be in the form of cash or financial and in-kind or non-financial (Wulandari, 2005). According to Krietner and Kinicki (2000), in general the forms of incentives can be, as follows: (1) individual incentives because they are given based on the achievement of an individual with certain predetermined standards. (2) group incentives that will be given to a group based on the performance achievement of the team or group, (3) a kind of profit

sharing to the entire organization, and (4) profit sharing in the form of rewards to all employees for an increased performance of their organization.

Particularly for the CCCD Project, incentives are also provided to 20 community groups through community empowerment program based on efficient methods on basis availability of natural resources. It is known that out of the 20 groups there are 6 groups (30%) which are the women farmer groups of Bayas Village. There are 12 KTH which has at least 1 woman member (around 5%-6%), also in Pokdarwis (46% of member are women or 16 out of 35 person) and Pokdarling (53% women members or 24 women out of 45 total members). Thus it can be said that the incentives for the CCCD SCU Lampung Project have taken into account gender equality.

Incentives are given in the form of grants (Table 5), the amount of which is adjusted to the proposal submitted and the type of program to be implemented with the incentive funds. The grant has been given twice with the following details:

Table5. First and Second Micro Grant of CCCD SCU Lampung Project

No	Group Name	Activity	Number of Micro Grant 2019 (IDR)	Number of Micro Grant 2020 (IDR)
1.	KTH Cirompang Jaya	Agrosilvopastural	32,404,000	7,220,000
2.	KTH Cirompang Lestari	Agrosilvopastural	32,404,000	7,220,000
3.	KTH Indah Jaya	Agrosilvopastural	32,404,000	7,220,000
4.	Kelompok Tani Hutan Kolar Jaya	Agrosilvopastural	32,404,000	7,220,000
5.	KTH Wana Jaya	Agrosilvopastural	32,404,000	7,220,000
6.	Kelompok Tani Mekar Jaya I	Agrosilvopastural	32,404,000	7,220,000
7.	KTH Anugrah Tani	Agrosilvopastural	32,404,000	7,270,000
8.	KTH Hidayah Tani	Agrosilvopastural	32,404,000	7,270,000
9.	KTH Lestari Rakyat	Agrosilvopastural	32,404,000	7,270,000
10.	KTH Maju Tani	Agrosilvopastural	32,404,000	7,270,000
11.	KTH Damar Kubang	Agrosilvofishery	17,155,000	6,195,000
12.	KTH Indah Makmur	Agrosilvofishery	7,972,500	6,000,000
13.	KWTH Melati	Home Industry	20,640,000	4,100,000
14.	KWTH Mawar Jaya	Home Industry	21,640,000	5,050,000
15.	KWTH Mawar Merah	Home Industry	18,320,000	5,800,000
16.	KWTH Melati Jaya	Home Industry	23,070,000	4,100,000
17.	KWTH Bunga Anggrek	Home Industry	24,020,000	5,050,000
18.	Pokdarwis Andan Jaya	Ekowisata	18,000,000	60,800,000
19.	Pokdarling Kusuma Sari	Pengelolaan Lingkungan	29,000,000	29,665,000
20	KWTH Berkah Jaya	Home Industry	0 (terbentuk pada bulan November tahun 2019)	20,525,000

When the community is supported by the improvement of their standard of living in their home location through the assistance of two business development grants, it can be proven that the CCCD SCU Lampung project strives to prosper the people of Bayas Jaya and does not have a resettlement or resettlement program so that the community can prosper.

K. Gender Roles on Best Practice of Sustainable Land and Natural Resources Management in Bayas Jaya Village

In Bayas village, we can find best practices in managing natural resources and land resources in a sustainable manner. The management of land resources is an agroforestry scheme that has been implemented by the people of Bayas Village. This management can also be said to be the management of natural resources because agroforestry can actually be implemented while still considering the aspects of the preservation of biodiversity in that location.

Based on the results of surveys, interviews and FGDs, it can be seen that the 20 groups that have been assisted by the CCCD SCU Lampung Project have the potential to be able to manage the biodiversity in their managed lands. The majority of their attitudes show that they agree that there are protection and preservation efforts but their knowledge is not sufficient to be able to carry out these efforts properly. In addition, this potential can be implemented properly if an inventory of the potential biodiversity in the CCCD SCU Lampung project is carried out, especially on lands managed by the community. Based on the results of the inventory, it will be known which parts of the land can be managed in aggregation or segregation in order to maintain the preservation of biodiversity (Wulandari, 2012).

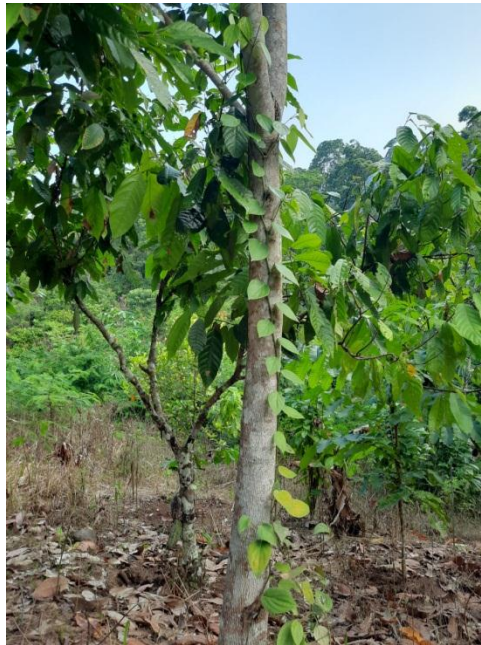
The first example best practices is the existence of agroforestry management in customary land which can be seen in Lebak Damar and Cong Kanan hamlets (Picture 19). In the field it can be seen that the cacao plant (*Theobroma cacao*) is planted with a combination of various types of trees such as medang, candlenut, sugar palm, melinjo and also banana. Land owners will be able to harvest in turn from each type of plants, so that they can still have

funds needed to meet their daily needs and usually the medang trees will be cut down to make or renovate their houses. When they covert the cutting trees to IDR, price of the teak is IDR 2,500,000/m³, Bayur IDR 2,200,000/m³, Medang IDR 1,800,000/m³ and Sengon 1,600,000/m³. According to the women who own the customary forest, they help manage this forest limited to light jobs and on basis their custom, such as weeding grass, harvesting cacao, planting and harvesting horticultural types, for example planting chilies, tomatoes and so on. There is also community who has husbandry and fish ponds in private (marga) forest. It is can be said as an efficiency way on natural resource management. At this the first sample of best practice, the dominance of work in the field remains with men. Actually it is 40% gender roles for forest managemen support suc as weeding, planting and harvesting of non timber forest products (NTFP). Average income from this forest is IDR 3,693,875/hectare/month excluded forest timber.



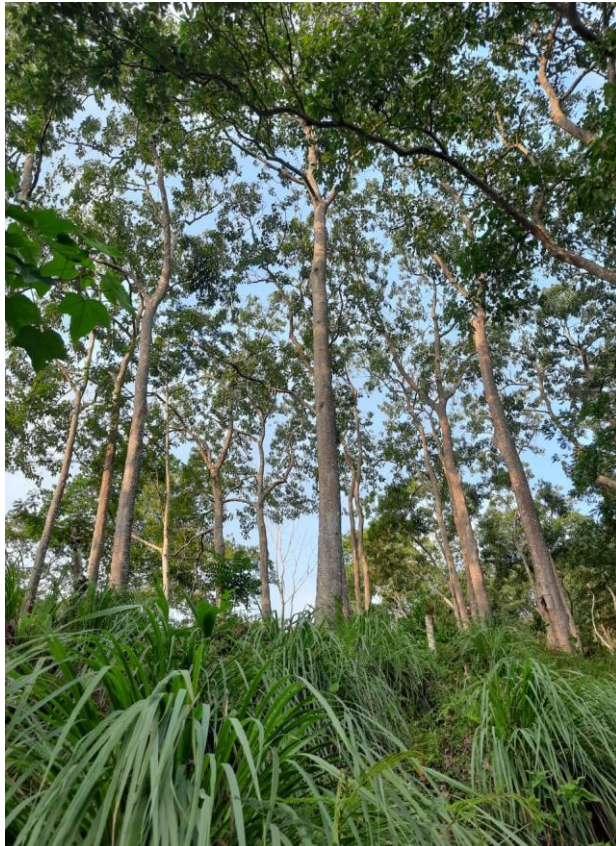
Picture 19. Cutting Trees in Marga (Private) Forest

Another example (Picture 20) is agroforestry management in Dusun Sinar Jaya (second sample). Although the main plants are the same, namely cacao, the surrounding plants are mostly various types of trees (high canopy stratification), and people leave the ground cover plants alive. According to the land owners, this was done deliberately in order to withstand erosion due to rainfall, included surface runoff. Similarly, in the second sample location the role of the women is only limited to light work. In this project location, even the men could not cut trees because the location is in the state forest. Thus the roles between men and women are almost the same, except in the activity of grassing for animal feed, therefore it is gender equity, men : women = 53% : 47%. The NTFP that usage by community also adding their income average IDR 2,260,000/hectare/month. It has known that CCCD SCU Lampung project make a community agree and aware to prohibited cut the trees rules. Its meant, the community have already action for climate change adaptation and mitigation indirectly.



Picture 20. Agroforestry in Sinar Jaya Hamlet

There is also another example, third sample (Picture 21), namely an agroforestry land near the Batu Perahu tourist spot. At this location, a combination of candlenut plants and land cover plants were found, dominated by lemongrass. Meaning of community in this third sample has already action for efficiency of natural resources management. The women in the third sample location are collecting candlenuts and then processing them until they are sold to the market therefore gender has quite high here, around 55%. The men will help harvest lemongrass if necessary because lemongrass has a function as an emergency cash for the people of Bayas Jaya. Average income from this location is around IDR 490,000 per month from lemongrass and candlenuts.



Picture 21. Agroforestry nearby Batu Perahu:
Candlenut and Lemongrass

Especially for the 3 samples of best practice that have been described above, it can be linked to the discussion of the division of gender roles in land management (Table 1). The table shows that there are several jobs that are commonly done jointly by men and women (which was acknowledged by more than 30% of respondents), for example in making decisions to determine the marketing of products, working together in seeding, harvesting and drying products. All of these can happen in the three *best practice* samples.

As for the jobs that are dominated by men, namely determining the types of plants to be planted, looking for feed and feeding livestock, preparing land, sowing and harvesting fish and feeding them. Meanwhile, the jobs done by women, which was acknowledged by more than 20% of the respondents, are weeding and determining the types of plants to be planted. Especially for livestock and fish management, it can only be done in the first best practice sample. Weeding grass activities and determining plant species can be done in all best practice samples.

L. Water Resource Management, Sanitation, and Waste in Bayas Jaya

The waste management in Bayas Village is not good, it is still mixed between organic and inorganic waste. Efforts have been made by distributing metal trash bins on several village roads and tourist sites. In addition, Bayas Village does not yet have a final waste disposal site. People still dump their garbage into cliffs or on river banks. A new waste institution i.e. Pokdarling Kusuma Sari with a woman as the head and 20 women members started to be developed in this village so that it has not been operating optimally yet. It is possible to develop waste bank in Bayas Jaya facilitated by Pokdarling. This effort can be said as environment and community health guardian development, and minimized efforts on river and soil waters pollution from garbage. It is possibility to develop garbage bank. The head of Pokdarling is woman and has 20 women members.



Picture 22. Waste Disposal in Batu Perahu



Picture 23. Pokdarling Kusuma Sari Activities

Bayas Jaya village through Pokdarling has already good garbage recycling use program. They make ash tray and table decoration from coconut shell (Picture 24 and 25).



Picture 24. Waste of coconut shell



Picture 25. Decorations of coconut shell

Especially for waste management, the people of Bayas Jaya carry out recycling activities quite well. They make table decorations and ashtrays from coconut shells (Picture 24). They also make solid and liquid compost in barrels (Picture 26). Besides, they also make ecobricks, recycling plastic by putting it in plastic bottles to be used as tables or chairs (Picture 27). Thus it can be said that the gender role in waste management and environmental hygiene maintenance in Bayas Jaya is quite high (53%) as it is carried out by Pokdarling Kusuma Sari.



Picture 26. Training of waste management



Picture 27. Training of compost barrels



Picture 28. Make ecobricks



Picture 29. Ecobricks training

In meeting the needs of Bathing Washing and Toilets, the majority of people use river water except in Bayas I and Congkangan hamlets that have built latrines. There are also latrines under construction in other hamlets, for example in Cirompang.

The management of water sources in Bayas Jaya Village is carried out independently with assistance from PAMSIMAS, namely for the construction of a water tank and the addition of hoses for its main waterways (Picture 30). Currently PAMSIMAS is being built in Cirompang, Lebak Damar, Sintuk, Serkung and Bayas I hamlets. Until now there has been no monitoring of water quality in this village. The quality of the water does not yet meet the requirements as clean water. Actually, during the dry season the water is cleaner.



Picture 30. PAMSIMAS piping

IV. CLOSING

A. Gender Roles Analysis

1. Gender Roles on Forest Management

Based on Table 1, it can be seen that there has been gender equality in forest management in Bayas Jaya. The community carries out various forest management activities in accordance with culture and aspects of human rights, health and security, namely the majority of men carry out land management which requires large energy, for example looking for animal feed (80%), making ponds and sowing fish seeds in customary or community forest (85%). The high percentage of activities relevant to fish pond management means that the CCCD SCU Lampung project also pays attention to the customs and culture of the indigenous people or Sundanese people who like to raise fish. Some of the majority of activities carried out jointly between men and women are harvesting (46.3%) and drying (42.9%). The majority of women's activities in forest management are weeding (22.8%). In other data, it is known that most of the community's land is managed in an agroforestry manner, which also means that the CCCD SCU Lampung project always considers aspects of biodiversity conservation and mitigates land degradation in each of its programs.

2. Gender Roles in Domestic Activities

Another case in the implementation of domestic activities is women have 3 main activities, namely preparing clothes (72%), preparing food (69%) and looking after children (57%). Thus, women still carry out activities in accordance with their nature, culture and strength. For men, there are 3 main activities that require a lot of

energy and 1 activity requires hard work, namely repairing houses (87%), looking for firewood (70%), fetching water (57%) and supporting family health funds (57%).

3. Gender Roles on Village Institution

In Bayas Jaya Village, there is already a gender role in all (100%) CCCD Project programs and all institutions (100%). Especially for Village Community Institutions such as PKK, BPD, PKH and Hamlet Administrators and Sustainable Forest Gapoktan Administrators, there is already a gender role of 22%. Other gender roles can be seen in 12 KTH institutions of 5% -6%, 100% at 6 KWTH institutions, and 49.5% at 2 KTH institutions (Pokdarwis and Pokdarling).

4. Gender Roles on Supporting Family's Economic

After KWTH had received two grants from the CCCD SCU Lampung project, they were only able to get average net income around IDR 450,000 to 850,000 per month for the groups (from selling various chips and other kind snacks). Some of the income was returned as capital and saved in the group treasury, also to increase the capital turnover in the following month therefore none to be distributed to group members. Marketing is still in local scale therefore group income is still minimal.

Actually, the KWTH's entrepreneurs in Bayas Jaya has not one year operationalize yet. Just started in in 2019 and have COVID19 pandemic in 2020. Based on this condition, its logic can be said that the income of KWTH has not succeeded yet in supporting their economy of the families. The existence of profits that are obtained every month indicates that mothers (KWTH's members) always try hard in carrying out their group's economic benefit, and this is the initial capital needed towards to a business can be sustainable (Wulandari and Inoue, 2018).

This means that the KWTH's economic entrepreneur has positive development prospects in the future and the women will have good economic prospect to support 7%-10% of family incomes. Development of marketing results from KWTH, during the Covid 19

period it was recommended to create a specially website of CCCD SCU Lampung project, and after COVID19 ended it could be through intensive meetings with marketing networks both at the Pesawaran District and Lampung Province levels. There needs to be continuous training to improve the quality of KWTH products, including the packaging.

5. Gender Role on Waste Management

Especially for waste management, the community of Bayas Jaya has already do waste recycle quite well. They made table decorations and ashtrays out of coconut shells (Picture 24). Then also make solid and liquid compost by putting it in a barrel (Figure 26). In addition, ecobricks has also been made, which is recycling plastic by putting plastic it in plastic bottles (bottles waste) to make a table or chair (Figure 27). Thus it can be said that the gender role in waste management and environmental hygiene maintenance in Bayas Jaya is quite high (53%) because it is carried out by Pokdarling Kusuma Sari.

6. Gender Role in Enhancing the Importance of Agroforestry

The gender roles in each important values of agroforestry are as follows: for NTFP (food, medicine and fruit sources) it is around 69%, wood utilization is around 15%, water supply or preservation is around 28%, ecotourism development is around 46% 10% conservation of wildlife habitat, around 12% of livestock use, 12% customary use, 14% management of fish ponds, and 13% honey bee maintenance.

B. Influence Factors on Mainstreaming Gender in Bayas Jaya Village

Most of the female respondents stated that so far they have helped manage the land for light work and they have the knowledge to do it such as planting and harvesting chilies and cacao and also helping with candlenut harvesting. It is the men who are in charge of looking for grass to feed the goats or making fish ponds.

The next internal factor is the level of forest utilization. When customary forest (not state forest) is managed intensively, of course it needs solid cooperation within the family, especially between husband and wife in order to obtain optimal results. Family social status also has an effect because a person's social status is correlated with the level of need for forest products. The higher the social status is, the less needs will be taken from the forest because they can afford to buy from the market. Thus the role of women in managing forests will be smaller in such families.

The influence of external factors on the role of gender in managing natural resources occurs because the community has some appropriate and inappropriate perceptions of women working in the forest. According to them who should do it are the men. Consequently, the role of women in managing forests is decreasing. If a man/husband has just become a member of a group, usually his level of knowledge is not sufficient. This means that the husband has not been able to share knowledge and skills with his wife. Then the wife has to help manage the forest as much as possible because of the limited skills and knowledge.

C. Factual Fields Condition (Best Practice Gender)

There are 3 (three) examples of best practices carried out by the community in Bayas Jaya Village in managing forests sustainably, efficiently, and based on local culture as well as gender equality. The first example is agroforestry management on customary lands in Lebak Damar and Cong Kanan hamlets (Figure 19.). The cocoa plant (*Theobroma cacao*) is planted with a combination of various types of trees such as 'medang' (Phoebe), candlenut, sugar palm, melinjo and other types of banana. Land owners harvest the crops alternately until the harvest season for each type. Therefore the community always has funds to fulfill their daily needs. The medang trees will be cut only when it is necessary to make or renovate a house. The role of the wives as women who own the customary forest, is usually to manage the forest in accordance with the existing customs and is limited to light jobs, for example weeding the grass or harvesting cacao. Thus, the domination of work in the field remains with the

men. So far gender roles is 40% for helping on weeding and planting also NTFP harvest. Community get average income around IDR 3,693,875/hectare/month. As a measure for the efficient use of available natural resources, in this location there are people who raise livestock and develop fish ponds in customary forests (private forests or community forests) which have been assisted by two grants from the CCCD SCU Lampung Project. With the provision of aid funds, this project will undoubtedly facilitate the village community to achieve welfare because they have been assisted at the local economic level.

Another example (the second sample) is the agroforestry management in Dusun Sinar Jaya (Figure 20). Although the main crops are the same, namely cacao, the majority of surrounding plants are various types of trees (high canopy stratification) with the aim of reducing erosion due to rainfall, including surface runoff. The existence of this condition means that indirectly the community has applied biodiversity conservation as well as mitigation and adaptation to climate change. The role of women is also in light work only. At this location the men understand that they are not allowed to cut trees because the trees are in state forest. Thus, it is proven that the CCCD SCU Lampung project can make the community agree and want to comply with the regulation that trees in state forests cannot be felled so that land degradation can be prevented. Women and men roles almost same, men : Women = 53% : 47% and the difference is only food gathering for husbandry. The NTFP from this location give income IDR 2,260,000/hectare/month.

The third example (Figure 21), is the stretch of agroforestry land near the Batu Perahu tourist te. At this location there are some combinations of candlenut trees and land cover plants which are dominated by lemongrass. This means that the community has efficiently managed natural resources because they can get additional incomes from tourism businesses apart from candlenut and lemongrass. The women in this location collect and sell candlenuts to the market therefore the women roles is 55%. Community earn IDR 490,000/month from those products. The

project team has provided an understanding of the need for gender equality based on local culture, namely the men will harvest lemongrass if needed as emergency cash for the people of Bayas Jaya.

V. OTHER INFORMATION

A. Potency of Payment for Environmental Services (PES)

In accordance with the objectives of the CCCD Project which are relevant to the issues of climate change, biodiversity and land degradation, natural resource management should also consider the potential for environmental services in Bayas Village. In fact, there is the potential for environmental services such as water, carbon, biodiversity and landscape beauty that can be explored to support sustainable natural resource management in this village. The management of environmental services through the Payment for Environmental Services (PES) scheme requires several stages, including potential studies such as studies on potential sellers and buyers of these services.

Based on data in the field, it is known that Bayas Village has the potential for environmental services in the form of water and landscape beauty that can be further managed.

1. The potential for landscape beauty in this village covers a waterfall tour in Cong Kanan hamlet, located on SL 5°33'2.02 S; EL: 104°58'35.65 T, Batu Perahu tour as well as Kusuma Sari and Kusuma Jaya waterfall tours. With the CCCD SCU Lampung project, people have started to manage these tourist sites even though it is not yet a separate institution. Currently these locations have been visited by more tourists from outside the village.



Picture 31. Gate to Batu Perahu



Picture 32. Batu Perahu Location

2. The potential for water services in Bayas Village is adequate to be managed as one of the environmental service potentials, especially to meet the needs of community toilets. Since 2015 Dusun Cong Kanan and Bayas Jaya Village have received investment from the government in the form of the PAMSIMAS (Community Based Water Supply and Sanitation) program for community groups. People who use this facility are asked to pay a monthly fee in order to maintain the installed facility. The management of water services has not been carried out by a specific community institution.

B. Risk Potency

The potential risks in the gender and socio-economic analysis in Bayas Jaya Village include aspects of the environment, management, and human resources.

Based on environmental aspects, the potential risks that can be informed are:

- (1.) risks to the availability of clean water used for community toilets. Currently, it relies on PAMSIMAS facilities and is not accompanied by adequate institutions,
- (2.) the diversity of animals that is not well understood by the community about its benefits on the balance of the ecosystem. During the FGD, there were still many people who thought that animals were pests so they needed to be eradicated,
- (3.) training and development of waste management facilities are needed. This is necessary because the waste management is not good yet and has an impact on the health and cleanliness of the river.

For risks from management aspects, they are, as follows:

- (1.) management of community group institutions. Thanks to the CCCD Project, Bayas Jaya Village has 20 community groups (both men and women) who are engaged in land management through agroforestry, livestock and fisheries. There are also special groups for tourism development and environmental

hygiene. All of these groups still need facilitation in the form of structured institutional strengthening programs.

- (2.) enhancing institutional harmonization between community groups as well as with government institutions or with donor agencies and other relevant institutions.

The potential risks for aspects of human resources are:

- (1.) the members and administrators of the twenty community groups do not yet have adequate knowledge of the 3 CCCD issues, so they need training programs to improve their ASF in improving group performance, for example product marketing . It is also necessary to increase community ASF related to the 3 CCCD project issues, and
- (2.) human resources in the village government should be have good knowledge of 3 issue of CCCD SCU Lampung development

VI. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

Based on the results of the gender and socio-economic analysis in Bayas Jaya Village, which has been the CCCD Project location for 3 years, it can be concluded that:

- (1.) The programs implemented by the CCCD project have had a positive impact on gender roles and equality in the management of land and natural resources, especially in terms of agroforestry, thus this gender has proven can support adaptation and mitigation, biodiversity and land degradation. It has proven that woman has good roles at every community's institution in Bayas Jaya and also at every program.
- (2.) There is an impact of increasing the welfare of the community and its development is still necessary. Prosperity here means economically prosperous and prosperous in terms of rights to access and manage land. Its hope, access and control on land management is also meaning the community's access for policy of village development.

B. Recommendations

- (1.) it is necessary to immediately formulate a policy that becomes the umbrella for gender mainstreaming on community empowerment programs in Bayas Jaya village on natural resources management which relevant to climate change, biodiversity and land degradation. Its program should be start to planning of land/forest rehabilitation up to facilitating

product marketing and consider to culture and human right aspects,

- (2.) it is necessary to increase the gender equality on natural resources management of human resource capacity in group or institutional management for group administrators and members (individually), as well as community group organizations and village government agencies (institutionally).
- (3) there should be program sustainability in enhancing gender roles in economic aspects, especially in obtaining income from timber and non-timber forest products during the CCCD Project and after the project ends. This needs to be recommended because of the high commitment, willingness and enthusiasm of the women in Bayas Jaya Village to be able to advance their village and also to help their household economy. This program can be implemented by continuing the MoU on the MDM Way Khilau Management, in which there is an agreement between stakeholders at the district, provincial and national levels (BPDAS). Thus, it is hoped that there will be integration and mutual support between one program from one institution and another program from another institution.

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