

THE IMPACTS OF AGRICULTURAL DEVELOPMENT PROJECT ON WOMEN : A Case Study of The Eastern Islands Smallholder Farming Systems and Livestock Development Project (EISFSLDP)

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ABSTRACT

The Eastern Islands Smallholder Farming Systems and Livestock Development Project (EISFSLDP) is a poverty alleviation project targeted for increasing income of a selected number of relatively poor rural households. The EISFSLDP project is carried out through an agribusiness approach to farming system development in three provinces in eastern part of Indonesia (South Sulawesi, North Sulawesi, and Maluku Provinces). Eventhough the problem of mainstreaming women in a development project has been anticipated in the project design and the project management has conducted some efforts to increase the involvement and participation of women in the project, but the problem still persists. The cultural values and norms of project staff and communities in the project areas have resulted a perception that the project beneficiaries are heads of households who are usually males.

Although there was a significant difference of time allocation in carrying out reproductive activities between women from project participant households and women from non project participant households, which was due to the time allocated to look for forage (among women from project participant households), but they perceived that there was no negative impact of the project on their time allocation in carrying out reproductive and productive activities, attending community activities, and on their leisure time. Due to the very limited opportunity for income generating activities, and their relatively adequate leisure time (ranging from 9.4 hours-11 hours per day), they perceived that their involvement in managing project packets was beneficial in using their time for productive activities.

Even though the majority of women from project participant households were involved actively in managing project packets (ranging from 62 to 95%) and they contributed significantly in farming activities, but they were not invited to attend farmer training and farmer group meeting. Despite the disadvantageous socio-cultural values in the project locations, the initial efforts of the project management to mainstream women into all aspects of project implementation should be consistently integrated into the project policy, project planning and program development, project technical guidelines, project administration such as in gender segregated reporting system, and project monitoring and evaluation. In this respect, gender analysis should be conducted in all project sites as a tool for an accurate basis for decision makings in the effort to increase the involvement and contribution of all members of project participant households, including women.

Key words : *role of women, agricultural development, South Sulawesi, North Sulawesi, Maluku.*

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ABSTRAK

Proyek Pengembangan Usaha Tani dan Ternak di Kawasan Timur Indonesia (*the Eastern Islands Smallholder Farming Systems and Livestock Development Project*) adalah suatu proyek penanggulangan kemiskinan yang bertujuan untuk meningkatkan pendapatan petani yang relatif miskin, melalui pendekatan agribisnis dengan pengembangan sistem usaha tani, di tiga propinsi Kawasan Timur Indonesia (Sulawesi Selatan, Sulawesi Utara, dan Maluku). Walaupun masalah penyertaan wanita telah diantisipasi di dalam desain proyek, dan manajemen proyek telah melakukan beberapa upaya untuk meningkatkan partisipasi dan penyertaan wanita dalam proyek, tetapi ternyata pengintegrasian penyertaan wanita kedalam implementasi proyek masih mengalami kendala. Norma dan nilai budaya dari staf proyek dan masyarakat di lokasi proyek merupakan salah satu penyebab dari anggapan bahwa peserta proyek adalah kepala keluarga yang biasanya laki-laki.

Walaupun alokasi waktu untuk melakukan kegiatan reproduksi pada wanita dari keluarga peserta proyek berbeda nyata dengan wanita dari nonpeserta proyek yang terutama karena diperlukannya alokasi waktu untuk melakukan kegiatan pencarian pakan hijauan ternak (pada wanita dari keluarga peserta proyek), tetapi mereka beranggapan bahwa tidak ada dampak negatif dari keterlibatannya dalam pengelolaan paket proyek terhadap alokasi waktu untuk kegiatan produksi dan produksi, hadir dalam pertemuan kemasyarakatan, dan terhadap waktu luang dan beristirahat. Sangat terbatasnya kesempatan untuk kegiatan yang menghasilkan pendapatan di desa, dan adanya waktu luang dan istirahat yang relatif cukup (berkisar antara 9,4 -11 jam per hari), justru menyebabkan keterlibatan wanita dalam pengelolaan proyek dianggap sebagai bermanfaat dalam penggunaan waktu untuk kegiatan yang produktif.

Walaupun sebagian besar wanita dari rumah tangga peserta proyek terlibat dalam pengelolaan paket proyek (berkisar antara 62 - 95%), dan kontribusinya cukup besar dalam kegiatan usaha tani, tetapi mereka tidak dilibatkan dalam pertemuan kelompok tani proyek dan dalam kursus tani. Oleh karena itu, upaya-upaya awal yang telah dilakukan manajemen proyek dalam meningkatkan partisipasi dan keterlibatan wanita dalam semua aspek pengimplementasian proyek perlu secara konsisten diintegrasikan ke dalam kebijaksanaan proyek, penyusunan program dan perencanaan proyek, petunjuk teknis kegiatan, administrasi proyek seperti sistem pelaporan dengan segregasi *jender*, serta monitoring dan evaluasi. Dalam hal ini, perlu dilakukan analisis *jender* di semua lokasi proyek sebagai dasar pengambilan keputusan yang akurat dalam upaya meningkatkan penyertaan dan keterlibatan semua anggota keluarga dalam pengelolaan paket proyek, termasuk anggota keluarga wanita.

Kata kunci : *peranan wanita, pembangunan pertanian, Sulawesi Selatan, Sulawesi Utara, Maluku.*

INTRODUCTION

The Eastern Islands Smallholder Farming Systems and Livestock Development Project (EISFSLDP) is an integrated farming system project supported by three farming input components which are livestock, tree/estate crops, food and or horticultural crops. The main objective of the project is to increase the incomes of a selected number relatively poor rural households through an agribusiness approach to farming system development in three provinces in the eastern islands of Indonesia. Secondary objectives, in the broader national context, are the development of smallholdings as integrated units, the more efficient use of the available farmland resource, a reduced draw-down of the breeding populations of Bali cattle, and a more equitable distribution of household incomes through the transfer of assets (cattle) from relatively wealthy to poorer households (EISFSLDP Project Appraisal, 1995). Besides the construction and upgrading needed infrastructures and

provision of project management services, one of the main project targets is the distribution of 41,800 heads of cattle to 19,000 farm households, 20,000 heads of goats to 9,000 farm households, and provision of tree crop/food crop/horticultural seeds/seedlings, farm inputs and equipment to the project participants.

The project is located in three eastern islands provinces namely South Sulawesi (4 districts), North Sulawesi (3 districts), and Maluku (2 districts). Besides budget allocation from the Indonesian government, the project is financially supported by the International Funds for Agricultural Development (IFAD), Islamic Development Bank (IDB) and a grant from the New Zealand Official Development Aids (NZODA). As the project is targeted to poor farm families who are belonged to the 50 percent under average well-being of the community, the project locations were selected among lagging villages in the selected districts. In this respect, all project locations are located in upland areas. However, as one of the project objectives is to develop smallholdings as integrated units and the more efficient use of the available farmland resource, the project participants should possess or have access to farmland.

The project started in early 1996 and will be implemented for seven years. As it has been widely acknowledged that many development projects have by-passed and do not accrue benefit towards women, the EISFSLDP has tried several intervention to mitigate this possibility. For this reason, from the beginning of its operation, the project has given a serious attention to the women's involvement, whether as project participants and or in project activities. The integration of women into the project is clearly stated in the Loan Agreement between the Government of Indonesia (GOI) and the International Fund for Agricultural Development (IFAD) "*The Borrower (GOI) shall ensure that women are, to the extent possible, fully integrated into all activities of the Project and, in particular, that full allowance is made for their participation in training courses and that they are effectively represented in village-level orientation and planning activities*" Thus, the challenge to mainstream women in the project has been anticipated since the beginning of the implementation of EISFSLDP. For this reason, the project conducted a Social and Gender Analysis Study using Participatory Rural Appraisal (PRA) approach at the beginning of the project (Handayani, 1996).

To promote gender sensitivity among the project staff and all parties involved in the project, and to encourage the use of Gender Analysis (GA) in the project planning development and implementation, the project conducted a GA workshop for the project staff, training on GA for Subject Matter Specialists (*Penyuluh Pertanian Spesialis/PPS*) and the project field staff (who consisted of Head of the ITSU/Integrated Technical Service Unit and Field Extension Workers/*Penyuluh Pertanian Lapangan*) from the three line agencies (Livestocks, Food Crops & Horticulture, and Estate Crops) in the nine project districts. All those project efforts referred above were intended to increase women involvement and participation in the project, whether as project participants and or as project beneficiaries. Thus, the primary objective of conducting this study is to assess the benefits of project towards women of project participant households, and the impact of women involvement in managing project packet on their time allocation in carrying out reproductive and productive activities, participating in community/social activities, and on their leisure time.

SURVEY METHODOLOGY

The primary purpose of the study was to provide information useful to the EISFSLDP management in its effort to increase women participation and involvement in the project, and to increase the benefit of the project towards women. To accomplish the study purpose, the following specific objectives were included: (a) To identify the socio-economic condition of the project participants related to the study purpose; (b) To examine the time allocation of women in carrying out reproductive and income generating activities, carrying out farming activities, tending livestock and poultry, attending community/social activities, and time allocation for leisure time; (c) To determine the impact of the EISFSLDP upon women's time allocation in carrying out reproductive and income generating activities, time allocation for attending community/social activities and for leisure time; and (d) To identify women perception of benefits of the EISFSLDP.

The study used descriptive survey research techniques with data collected from a sample drawn randomly from a population of women from project participant households and women from non participant households. The respondents were wives of heads of households. The respondents from non project participant households were drawn from households with similar socio-economic condition with the project participant households.

A sample of 30 women from project participant households and 30 women from nonproject participant households was drawn randomly in each of study districts. The study locations were selected from villages where the social study and GA were conducted in the first year of project implementation. Those villages are as follows: (a) Tugondeng and Karassing villages, Herlang sub district, Bulukumba district; (b) Ambopadang and Taramanu villages, Tutallu sub district, POLMAS district; (c) Winuri and Wineru villages, Likupang sub district, Minahasa district; (d) Sukamaju and Pangeya villages, Paguyaman sub district, Gorontalo district; and (e) Hatusua and Nuruwe Villages, Kairatu Sub-District, Central Maluku District.

The statistical analysis was carried out by the staff of Center for Agricultural Data, Ministry of Agriculture. Descriptive and inferential statistics were used to analyze the data. A frequency program was used to obtain a descriptive analysis for frequency distributions, means, and percentages. A t-test comparing the group of respondents from the project participant households and the group of respondents from the non project participant households was used to examine the impact of EISFSDLP on women for selected variables.

SURVEY RESULTS AND ISSUES

Besides socio-economic condition of the project participants, this survey also gathered information on time allocation of women in carrying-out: (a) reproductive activities, (b) income generating activities, (c) attending community/social activities, and (d) time allocation for leisure time. Besides time allocation, information on women contribution in farming and in tending livestock was obtained to analyze the possible burden on women resulted from their involvement in managing project packet. Perception of women from project participant households regarding the project benefits and the negative impact caused by the project (if any) was solicited to find out the degree of project benefits towards women. Information gathering on reasons of women for not attending farmer

group meeting, and their perceived training needs was intended to provide information for the project management in order to develop an appropriate and effective extension strategy and approach.

Socio-Economic Condition of Project Participants

Socio-economic condition of the project participants in this survey report is reported by district and province. Thus, the district is used as a unit of analysis. The lowest average number of family members was 4.1 which was found in Bulukumba, and the highest average number was found in Central Maluku which was 6.1 person per family (Table Appendix 1). The lowest average number of children over 10 years of age per family was found in Bulukumba and Polmas (one child/family) and the highest was 2.2 children per family in Central Maluku district. The lowest average age of heads of households and their spouses were found in Bulukumba which were 35.5 years of age and 32.6 years of age respectively. The average age of heads of households of project participants and their spouses in Central Maluku were the highest among other project participants.

There were no EISFSLDP participants nor their spouses who were illiterate in Minahasa and Central Maluku Districts (Table Appendix 3). There was also no illiterate male EISFSLDP participants in Bulukumba and Gorontalo Districts, but 3.6 and 3.2 percent of the participant's wives in Bulukumba and Gorontalo districts were illiterate respectively. Further, there was quite a high percentage of male project participants in Polmas district who were still illiterate (13.8%), whereas the number of participant's wives who were still illiterate was double compared with those of the husbands (27.6%). The highest number of educational level among project participants and their spouses were Primary School drop-out and Primary School graduate. This educational level of the majority of project participants should be considered in choosing the extension media, methods, learning materials, and approach.

As women are responsible for farming activities on home garden in the five study locations, the size of home garden of project participants (Table A 4) relatively adequate for horticulture such as fruit trees and vegetables. This home gardening could be managed for the source of additional income and family's food. However, the high communal value that still exists among community in Polmas, where sales of produce among neighbors and relatives was not common, and the distance to the nearest market is quite far (1.5 hour by car), the motivation to grow vegetables and fruit trees should be for providing nutritious food for the family.

Among the five study locations, women from the project participant households in Central Maluku had to walk farthest to work on their farm, ranging from 1.45 Km-2.50 Km (Table Appendix 4). In this respect, most women from the project participant households in the five study locations, especially women in Polmas, Gorontalo, Minahasa, and Central Maluku go and work on their farm as a routine daily activity. Besides doing farming activities, they use the time to look for fuel wood and forages. Women from Gorontalo (Pangeya Village) also bring their cattle to graze on the farm. Most women from project participant households in Pangeya Village did the tasks of herding project cattle. They considered the project cattle (Bali cattle) were not dangerous, and it was common for them to wash their cattle in the river behind their Village. For this reason, women from Pangeya

village should get more training and extension in cattle rearing compared with their husbands. The involvement of women in Pangeya Village in tending cattle is a contrary to the belief that cattle is not an appropriate animal for women.

Table 1. Annual Average Source of Income (Rp. 000) of the EISFSLDP Participants

No.	Source of Income	Annual Average Income (Rp. 000)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Farming	914	3719	1765	1039	1012
2	Livestock & Poultry	46	53	34	12	37
3	Home Garden	22	49	30	59	118
4	Off-farm Income	178	29	134	1028	440
5	Payment from other parties	18	42	61	63	136
6	Petty Trading	327	128	129	360	193
7	Pension	-	-	-	-	71
	Total	1505	4020	2153	2561	2007

B: Bulukumba; P: Polmas

G: Gorontalo; M: Minahasa; CM: Central Maluku

The portion of food crops that is being used as the family's food supply is not included in the calculation of income derived from farming. For this reason, the highest average source of income from farming of project participants was found in Polmas (Table 1). The main farm commodity in Polmas is cacao which is sold as a cash crop. The lowest income derived from farming was found in Bulukumba. During the survey period, the project contract in the five study locations had not reached the stage where the project participants were allowed to sell the livestock's offspring. For this reason, source of income derived from livestock was practically none, unless in Minahasa where the source of income was obtained from the sale of pig. Income derived from poultry was under women's control in the five study areas and it was the main source of women's income. In this respect, despite of disease problem, encouraging poultry raising among women from project participant households would increase their income. The possibility of introducing oral-ND vaccine could be explored in cooperation with the *Balai Penelitian Veteriner/Balitvet* (Research Institute for Veterinary Sciences) in Bogor.

Women from Bulukumba, South Sulawesi, earned the highest income from petty trading. The highest total household income derived from off-farm income was found in Minahasa (Table 1). Besides the study location in Minahasa is not far from Manado (around 1.5 hours by car), a relatively better educational background of family members of project participant households in Minahasa (compared with project participants in the other four study locations, Table Appendix 3) might have created a better opportunity for employment and or income generating activities in Minahasa. The off-farm income of women and daughters of project participant households in Gorontalo mostly derived from handicraft

(embroidery and mat making). Furthermore, data in Table 1 indicate that there was no project participants and their family members, except in Central Maluku District, who received income from pension.

Women Roles and Contribution in Reproductive, Productive, and Social Activities

Reproductive activity is defined as tasks carried out for the family survival. Even though the society has imposed the responsibility of reproductive activities on women, but the importance of reproductive activities to the family survival, especially in rural areas where poor women can not afford to get assistance for carrying out reproductive activities, has not been adequately acknowledged. Besides being responsible for reproductive activities, a poor woman farmer has to allocate her time for farming and income generating activities for her family financial survival. The limited time of these poor women farmers should be considered in providing extension activities for them.

Time allocation for conducting reproductive activities

Women from the EISFSLDP participant households in Minahasa spent the least time to carry out reproductive activities (5 hours 44 minutes per day, Table 2), whereas women from the EISFSLDP participant households in Polmas spent the longest time to fulfill their domestic tasks (7 hours 27 minutes per day). In this respect, the appropriate time for providing extension activities for women from project participant households should be negotiated with them in order to obtain their high participation rate. Another important factor that should be considered is their routine daily activities. Women in Polmas usually go to their farm around 7:00 in the morning and they go home around 11:00 to cook for lunch and doing household chores. Whenever they still have enough energy and there are farming activities to be conducted, they would go back to the farm and go home around 16:30 to pray for Ashar. A discussion with women from Polmas indicated that women could attend an extension meeting starting from 15:30 after they have prayed (Ashar pray).

Comparing with women from the other four study locations, women from project participant households in Bulukumba allocated more time in carrying out petty trading and working as farm laborer (Table 3). Women from project participant households in Gorontalo allocated more time, compared with women from the other study locations, to earn money through mat making and embroidery work.

Women from project participant households in Minahasa and Central Maluku spent around five and seven days in a month respectively for attending religious meeting (Table 4). The church organization in those two study locations mentioned above was well organized and it had a strong influence on the community's life. The possibility of using the church organization as a medium for development activities such as for extension activities needs to be explored in the two study location referred above.

There was no woman from project participant households in the five study locations who allocated her time to attend *Lembaga Ketahanan Masyarakat Desa/LKMD* (Community Development Council) meeting. Women would attend the LKMD meeting only as substitutes whenever their husbands can not attend the meeting. As the LKMD is

the highest formal decision making organization at the village level, it can be assumed that women from project participant households in the five study locations had no direct access to a formal decision making process in their villages.

Table 2. Average Time to Carry Out Reproductive Activities of Women from EISFSLDP Participant Households in the Three Project Provinces

No.	Reproductive Activities	Time Allocation (minutes/day)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Looking after a small child*	182	343	251	399	141
2	Cooking	79	105	101	61	108
3	House cleaning	49	55	44	43	23
4	Laundry work	61	62	67	74	67
5	Looking for fuel wood	44	92	49	69	65
6	Water collection	48	28	29	16	15
7	Shopping for daily cooking	55	22	31	19	65
8	Looking for forage	64	83	53	62	94
Total		400	447	374	344	437

* Looking after small children is carried out with other activity and it is not included in the total allocation or reproductive activities.

B : Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Table 3. Average Time Allocation to Carry Out Income Generating Activities of Women from EISFSLDP Participant Households in the Three Project Provinces

No.	Income Generating Activities	Time Allocation				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Farm Laborer (day/season)	7	1.0	4.6	3.5	-
2	Petty Trading (day/month)	8	0.7	2.0	1.7	1.8
3	Handicraft (day/month)	-	-	5.5	-	-

B: Bulukumba; P: Polmas
G: Gorontalo; M: Minahasa
CM: Central Maluku

The highest participation of women from project participant households in the Pendidikan Kesejahteraan Keluarga/PKK (Family Welfare Movement) meeting was found in Minahasa (4 times/month, Table 4). This high participation rate was possible due to a consensus among the villagers with Head of Village (*kepala desa*) that every Mondays the villagers were expected for not going out of the village, and they should participate in

activities sponsored by the government. They call Mondays as the *Hari Pemerintah* (the Government Day). Anybody who needed to go out of their village for a very important and or urgent reason should get a permission from the *kepala desa*. If their reason was not accepted, they could still go out of their village after they have paid fine. If this arrangement mentioned above is a real voluntarily community consensus, the project staff could use the opportunity for conducting project activities on Mondays in order to gain a high participation rate.

Table 4. Average Time Allocation to Attend Community/Social Activities of Women from EISFSLDP Participant Households in the Three Project Provinces

No	Attendance at Community Activities	Time Allocation (time/month)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Religious meeting (pengajian)	2.5	1.2	1.5	5.2	7.4
2	EISFSLDP Farmer Group meeting	-	-	-	-	-
3	Other agricultural extension meeting	-	-	-	-	-
4	Family Welfare Movement (PKK) meeting	1.2	1	1.1	4.0	2.8
5	Saving Group (Arisan) meeting	1.5	1	1.4	1.5	1.0
6	Community Development Council (LKMD) meeting	-	-	-	-	-
7	Neighborhood Welfare (Dasa Wisma) meeting	1.7	-	2	4.0	2.0

B: Bulukumba; P: Polmas
 G: Gorontalo; M: Minahasa
 CM: Central Maluku

Time allocation for activities during leisure time of women from the five study locations indicated that they still had time to visit their friends/relatives (ranging of 0.5 hours - 1.5 hours per day, Table 5), having a rest during day time (ranging from 1.1 hours - 2.4 hours per day), and having adequate time for sleeping (7.0 hours - 8.1 hours per day). So far, poor women farmers are often perceived that they are too busy to carry out reproductive and productive activities that make them have a very limited time for leisure time and non direct economic activities such as agricultural extension (Syaifudian, 1994; Wahyuni and Malian, 1993; Saito and Spurling, 1992). Data presented in Table 3 reveal that the opportunity for income generating activities in the five study locations was very scarce. Discussions with women from project participant households in the five study locations concluded that they did not perceive their involvement in managing project packets influence negatively their time allocation for other activities.

Table 5. Average Time Allocation for Activities during Leisure Time of Women from EISFSLDP Participant Households in the Three Project Provinces

No.	Activities During Leisure Time	Time Allocation (hour/day)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Visiting relatives or friends	0.5	1.5	0.75	1.1	0.5
2	Having a rest, including having a siesta	2.4	1.1	2.1	1.6	1.9
3	Sleeping	8.1	8.1	7.8	8.1	7.0
Total		11	10.7	0.7	10.8	9.4

B: Bulukumba; P: Polmas
 G: Gorontalo; M: Minahasa
 CM: Central Maluku

Women Roles and Contribution in Farming Activities

Information on women roles and contribution in farming activities was not obtained based on total number of days to carry out farming activities (rainy and dry seasons), but based on total number of days they worked on each type of farm (home garden, upland for food crops, upland for estate crops, rice field, and fish pond). The duration of their working hour on each type of farm per day was not asked, as they could work on more than one type of farm in a day. In this respect, the total number of days they carried out farming tasks on each type of farm as presented in Table 6 does not necessarily represent the actual number of days they worked on farm, but rather the frequency of farming activities carried out on each type of farm.

Women from project participant households in Polmas had the highest intensity of working on their *kebun* (upland for estate crops) followed by women from Gorontalo (Table 6). The highest intensity of their time was used for weeding at their *kebun*. Women from Gorontalo had the highest frequency to carry out watering at their home garden and *tegalan* during dry season. The rainfall in Gorontalo district is low in total, and the dry season is pronounced (the EISFSLDP Appraisal Report, 1995). However, some of respondents in Gorontalo still tried to grow fish in fish ponds during rainy season.

Women Roles and Contribution in Tending Livestock and Poultry

In the study locations where project participants received cattle (Bulukumba, Gorontalo, and Central Maluku Districts) women spent more time to tend livestock and poultry as project participants might also have goats. The average number of chicken owned by project participants was around 6-16 heads per household in the five study locations, and chicken was the source of women income.

Table 6. Average Frequency of Farming Activities of Women from EISFSLDP Participant Households in the Three Project Provinces

No.	Season	Farming Activities (day/season)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
I. Rainy Season:						
1	Home Garden	7.7	22.3	27.1	10.2	9.3
2	Upland for Annual Crops	17.9	27.9	17.8	18.3	34.8
3	Upland for Estate Crops	12.2	105.7	49.8	54.0	14.0
4	Rice Field	9.6	-	13.3	-	-
5	Fish Pond	3.0	-	8.4	-	-
II. Dry Season:						
1	Home Garden	5.6	9.8	104.6	7.6	12.2
2	Upland for Annual Crops	12.9	8.8	45.7	24.6	23.6
3	Upland for Estate Crops	8.2	61.9	48.2	34.0	11.4
4	Rice Field	9.2	-	8.2	-	-
5	Fish Pond	-	-	-	-	-

B: Bulukumba; P: Polmas
 G: Gorontalo; M: Minahasa
 CM: Central Maluku

Women from project participant households in Central Maluku spent the longest time to tend livestock and poultry (161 minutes/day), followed by women from Gorontalo (113 minutes/day) and Bulukumba (80 minutes/day, Table 7). However, this activity might be carried out with other farming activities. Those women usually bring their cattle to the farm and tether the animal to graze while they are working on the farm.

Table 7. Average Time Allocation to Tend Livestock and Poultry of Women from EISFSLDP Participant Households in the Three Project Provinces

No.	Livestock/ Poultry	Time Allocation (minutes/day)				
		South Maluku		North Sulawesi		Maluku
		B	P	G	M	CM
1	Cattle	36	-	42	-	89
2	Goat	25	21	37	31	60
3	Horse	-	-	-	-	-
4	Pig	-	-	-	23	-
5	Chicken	14	14	11	11	12
6	Duck	5	-	-	-	-
7	Swan	-	-	23	-	-
	Total time	80	35	113	65	161

B: Bulukumba; P: Polmas
 G: Gorontalo; M: Minahasa
 CM: Central Maluku

Impact Analysis of EISFSLDP Project on Women Time Allocation

The perception of women from project participant households regarding the project impact on their time allocation is presented in Table 8 and Table 9.

Table 8. Percentage of Responses of Women from Project Participant Households Regarding the Impact of EISFSLDP on Their Time Allocation to Carry out Reproductive and Productive Activities

No.	Perception Regarding the Project Impact on Time Allocation	Percentage of Response (%)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
I	Reproductive activities:					
	- None	83.3 (25*)	93.3 (28)	62.1 (18)	90.0 (27)	93.3 (28)
	- A little	16.7 (5)	6.7 (2)	37.9 (11)	6.7 (2)	6.7 (2)
	- A lot	-	-	-	3.3 (1)	-
II	Productive activities:					
	1. Farm laborer					
	- None	50.0 (1)	100.0 (7)	-	100.0 (4)	100.0 (4)
	- A little	50.0 (1)	-	78.6 (11)	-	-
	- A lot	-	-	21.4 (3)	-	-
	2. Post harvest handling					
	- None	85.7 (6)	57.1 (8)	-	50.0 (1)	100.0 (6)
	- A little	14.3 (1)	35.7 (5)	100.0 (3)	50.0 (1)	-
	- A lot	-	7.2 (1)	-	-	-
	3. Petty trading					
	- None	100.0 (5)	-	100.0 (11)	100.0 (8)	100.0 (15)
	- A little	-	100.0 (1)	-	-	-
	- A lot	-	-	-	-	-

B: Bulukumba; P: Polmas

G: Gorontalo; M: Minahasa

CM: Central Maluku

* Figure in bracket is n: number of respondent(s)

* Figure in bracket is n: number of respondent

Table 9. Percentage of Responses of Women from Project Participant Households Regarding the Impact of EISFSLDP on Their Time Allocation to Carry out Community Activities and on Their Leisure Time

No.	Perception Regarding the Project Impact on Time Allocation	Percentage of Response (%)				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
I	Community activities:					
	1. Religious gathering					
	- None	100 (18*)	92.3 (12)	92.0 (23)	93.3 (28)	100 (3)
	- A little	-	7.7 (1)	8.0 (2)	6.7 (2)	-
	- A lot	-	-	-	-	-
	2. PKK gathering					
	- None	100 (14)	100 (1)	95.8 (23)	100 (17)	100 (12)
	- A little	-	-	4.2 (1)	-	-
	- A lot	-	-	-	-	-
	3. Arisan gathering					
	- None	100 (14)	100 (6)	100 (21)	95.8 (23)	100 (6)
	- A little	-	-	-	4.2 (1)	-
	- A lot	-	-	-	-	-
	4. Dasa Wisma					
	- None	78.6 (11)	100 (1)	100 (9)	100 (17)	100 (5)
	- A little	21.4 (3)	-	-	-	-
	- A lot	-	-	-	-	-
II	Leisure Time:					
	1. Visiting relatives/ friends					
	- None	93.1(27)	95.5 (21)	78.6 (22)	96.7(29)	100 (29)
	- A little	6.9 (2)	4.5 (1)	21.4 (6)	3.3 (1)	-
	- A lot	-	-	-	-	-
	2. Having a rest					
	- None	80.8 (21)	92.3 (24)	80.8 (21)	90.0 (27)	93.3 (28)
	- A little	19.2 (5)	7.7 (2)	19.2 (5)	10.0 (3)	4.7 (2)
	- A lot	-	-	-	-	-
	3. Sleeping					
	- None	92.9 (13)	100.0 (8)	96.2 (25)	93.1 (26)	96.3 (26)
	- A little	7.1 (1)	-	3.8 (1)	6.9 (1)	3.7 (1)
	- A lot	-	-	-	-	-

* Figure in bracket is n: number of respondent

The summary of t-test results comparing women from project participant households and women from nonproject participant households in the five study locations concerning the impact of their involvement in managing EISFSLDP packets on their time allocation to carry out reproductive and productive activities, attending community activities, and on their leisure time is presented in Table 10. The t-test result for each study district is presented in Appendix A-6 through Appendix A-8. The value of t is calculated using this following formula:

$$t_{\text{calculated}} = \frac{(\bar{x}_P - \bar{x}_{NP}) - (\mu_P - \mu_{NP})}{\sqrt{\frac{(n_P - 1) S_P^2 + (n_{NP} - 1) S_{NP}^2}{(n_P + n_{NP} - 2)} \left(\frac{1}{n_P} + \frac{1}{n_{NP}} \right)}}$$

where P : Project participant
 NP : Non project participant

Table 10. Summary of t-test Results Comparing Women from Nonproject Participant Households and Women from Project Participant Households Regarding the Impact of Their Involvement in Managing EISFSLDP Packets on Their Time Allocation to Carry Out Selected Activities

No	Activity	South Sulawesi				North Sulawesi				Maluku	
		B		P		G		M		CM	
		S ¹	NS ²	S	NS	S	NS	S	NS	S	NS
1	Reproductive activities	0.95*		0.98*		0.98*		0.95*		0.95*	
2	Income generating activities:										
	- Farm laborer	-	-	-	-	0.80		0.50		0.50	
	- Petty trading	-	-	-	-	0.80					
	- Handicraft	-	-	-	-	0.80					
3	Community/social activities	0.98*			0.50	0.50		0.50		0.80	
4	Leisure time	0.99**		0.98*		0.50		0.50		0.80	

S¹: Significant; NS²: Non Significant
 B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

The majority of women from project participant households had an additional task of looking for forage, ranging from 53 minutes/day in Gorontalo to 94 minutes per day in Central Maluku (Table 2). This task has resulted a significant difference in the time allocation to carry out reproductive activities of women from project participant households compared with those from non project participant households (Table 10). However, the majority of women from project participant households did not perceive that there was an impact of their involvement in managing EISFSLDP packets on their time allocation to carry out reproductive and productive activities, attending community activities, and on their leisure time (Table 8 and Table 9). This finding could imply that women's involvement in managing EISFSLDP packets was not perceived as a burden. Thus, those women's

involvement in managing EISFSLDP packets did not cause a negative impact on their time allocation in carrying out reproductive and productive activities, attending community activities, and on their leisure time. Considering a relatively adequate leisure time of women from project participant households (Table 5, ranging from 9.4 hours/day in Central Maluku to 11 hours/day in Bulukumba), and the limited opportunity for income generating activities (Table 3), women's involvement in managing EISFSLDP packets could be viewed as an opportunity to use their time for productive activities.

Perception of Women on Benefit of EISFSLDP Project

The issue that a development project does not always provide improvement in women's lives has been raised since nearly 30 years ago (Boserup, 1970). For this reason, besides efforts to integrate women into a development project, they should also gain benefits from the project. Data presented in Table 11 indicate that women from project participant households in Gorontalo gave the most favorable responses regarding the EISFSLDP benefits. However, women from the goat distribution areas (Polmas and Minahasa) had more positive response regarding the potential increase of family income derived from the sale of goat's offspring, food crop and tree crop produce. This means that those women viewed the EISFSLDP credit was a promising potential for increasing their family income.

Table 11. Percentage of Responses of Women from EISFSLDP Participant Households Regarding of the EISFSLDP Benefits in the Three Project Provinces.

No.	Women Perception	Percentage of Responses				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	- Being able to have drought animals to increase size of land to be cultivated	6.7	-	80.0	-	13.3
2	- Increase family income derived from increase of land being cultivated	30.0	-	70.0	-	16.7
3	- Being able to get manure	76.7	90.0	6.7	10.0	20.0
4	- Increase family income from the sale of livestock's offspring, annual and tree crop produce	23.3	-	60.0	93.3	80.0
5	- Having an opportunity to use family labor for productive activities	3.3	23.3	43.3	50.0	23.3
6	- Being invited to attend EISFSLDP Farmer Group meeting	-	-	-	-	-
7	- Being invited to attend farmer training for EISFSLDP participants	-	-	-	-	-

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Extension and Farmer Training for Women

So far, the main project extension activities were Farmer Group Meeting and Farmer Training. Reasons of women from project participant households in the five study locations for not attending Farmer Group Meeting and Farmer Training are presented in Table 12 and Table 13. Discussion result with women from project participant households in the five study locations revealed that when they attended Farmer Training and or Farmer Group Meeting, they were only as substitutes whenever their husbands could not attend the training and or the meeting. Considering the high contribution and participation of women in farming activities and in managing project packages, women should be considered as equal and full project participants together with heads of households who are usually males. In this respect, the project management should consider the EISFSLDP as a family project, not only as a project for heads of households as being perceived by many project staff. Due to this misleading perception, women from project participant households were not invited to attend farmer training and farmer group meeting. Result of discussion with those women from the five study locations indicated that they were eager to participate actively in farmer training and farmer group meeting, but they were ashamed to come if they were not invited formally.

Table 12. Percentage of Responses of Women from EISFSLDP Participant Households for not Involved in EISFSLDP Farmer Group Meeting in the Three Project Provinces

No.	Reasons	Percentage of Responses				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Too busy taking care of my family	19.1	14.3	4.2	20.7	4.6
2	Too busy doing household chores	23.0	38.1	-	27.6	-
3	Too busy doing income generating activities	14.3	9.5	4.2	3.5	-
4	Not being invited to attend EISFSLDP Farmer Group meeting	52.4	52.4	91.7	96.6	13.6

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Regarding extension for women, a discussion result with the project field staff revealed that trainees for the Farmer Training, which was designed and supported by either the provincial or district project management, were only project participants who were perceived as farmers who signed the credit contract. Socio-cultural norms in the project provinces, especially in rural areas, signing a credit contract falls under a public domain which is considered as the responsibility of heads of households who are usually males. As there is no statement in the project guidelines of Farmer Group Meeting and Farmer Training that spouses of the project participants were also invited to attend those two project extension activities referred above, the project field staff perceived that the extension participants were only the husbands. For this reason, over 91 percent of women in the five study locations gave the response of "not being invited" as their main reason for not attending the project extension activities.

Table 13. Percentage of Responses of Women from EISFSLDP Participant Households for not Involved in EISFSLDP Farmer Training

No.	Reasons	Percentage of Responses				
		South Sulawesi		North Sulawesi		Maluku
		B	P	G	M	CM
1	Too busy taking care of my family	19.1	14.3	4.2	20.7	4.6
2	Too busy doing household chores	23.8	38.1	-	27.6	-
3	Too busy doing income generating activities	14.3	3.5	9.5	4.2	-
4	Not being invited to attend EISFSLDP farmer training	92.4	92.4	91.7	96.6	95.4

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

CONCLUSION AND RECOMMENDATION

Over 92 percent of women from project participant households in the study locations (except in Polmas, 62%) involved actively in managing EISFSLDP packets. They also engaged actively and contributed significantly in farming activities. However, even though there was a significant difference in the total time allocation to carry out reproductive activities between women from project participant households and women from non project participant households, which was due to the time allocation needed to look for forage, but the majority of women from project participant households perceived that their involvement in managing EISFSLDP packets had no impact on their time allocation to carry out reproductive and productive activities, attending community activities, and on their leisure time. On the other hand, they perceived very positively regarding the project benefits on their farming enterprise, and as a potential source of increasing their family's income. Their perception could be explained by a very limited opportunity of income generating activities in their villages. The relatively adequate duration of their leisure time, ranging from 9.4 hours/day in Central Maluku to 11 hours/day in Bulukumba, indicated that even though they were actively involved in managing project packets, but the activities did not cause a time pressure toward them.

The significant roles and contribution of women in farming and in managing EISFSLDP packets will influence substantially the degree of achievement of EISFSLDP objectives. For this reason, one can not ignore these very potential human resource who can contribute significantly to the achievement of the project objectives. Despite the disadvantageous socio-cultural values in the project locations, the initial effort of the project management to mainstream women into all aspects of project implementation should be consistently continued. Women's involvement should be integrated into the project policy, project planning and program development, project technical guidelines, and project administration such as in gender segregated reporting system, project monitoring and evaluation.

Gender Analysis (GA) should be conducted in all project sites as a tool for an accurate basis for decision makings in the effort to increase the involvement and contribution of all members of project participant households, including women. For this reason, the key project staff and especially project field staff, should possess an adequate knowledge and skills to conduct GA in their area of jurisdiction. In this respect, the project management needs to set a policy and develop technical guidelines of using GA results in decision makings regarding project activities at the field level, and in any project activities concerning all members of project participant households.

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APPENDIX:

Table A-1. Average Number of Family Members, Age of Head of Household and Their Spouses, and Number of Children Over 10 Years of Age of EISFSLDP Project Participants

No.	Family Members	South Sulawesi		North Sulawesi		Maluku
		Bulukumba	Polmas	Gorontalo	Minahasa	Central Maluku
1	- Number of family members	4.1	4.5	5.0	4.6	6.1
2	Age :					
	- Head of household	35.5	35.8	39.1	39.4	41.7
	- Spouse					
	- Number of children	32.6	32.9	34.1	37.1	39.1
3	10 years of age and older					
	- Male	0.5	0.4	0.8	0.9	1.1
	- Female	0.5	0.6	1.0	0.6	1.1

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Table A-2. Percentage of Women from Project Participant Households Who Were Involved in Managing EISFSLDP Packets

No.	District	Involvement in Managing EISFSLDP Packets			
		Yes		No	
		n	Percent	n	Percent
1	Bulukumba	12	92.3	1	7.7
2	Polmas	18	62.1	11	37.9
3	Gorontalo	24	92.3	2	7.7
4	Minahasa	28	93.3	2	6.7
5	Central Maluku	19	95.0	1	5.0

Table A-3. Percentage of Level of Formal Education of Heads of Household and Their Spouses of EISFSLDP Project Participants

No	Level of Formal Education	Husband					Wife				
		S. Sulawesi		N. Sulawesi		Maluku	S. Sulawesi		N. Sulawesi		Maluku
		B	P	G	M	CM	B	P	G	M	CM
1	Illiterate	-	13.8	-	-	-	3.6	27.6	3.2	-	-
2	Primary School Drop-Out	26.7	20.7	31.0	25.8	3.3	28.5	13.7	26.3	32.3	-
3	Primary School Graduate	23.3	27.6	41.4	25.8	60.0	42.9	34.5	46.3	32.3	62.1
4	Junior High School Drop-Out	-	10.3	6.9	12.9	3.3	0.0	3.5	3.5	12.9	3.4
5	Junior High School Graduate	26.7	13.5	10.3	16.1	20.0	17.9	6.9	3.5	3.2	27.6
6	Senior High School Drop-Out	-	3.5	3.5	-	3.3	-	6.9	6.9	3.2	-
7	Senior High School Graduate	19.8	10.6	6.9	19.4	10.1	7.1	6.9	10.3	16.1	6.9
8	College	3.5	-	-	-	-	-	-	-	-	-

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Table A-4. Average Farm Size and Distance of the Farm (from the House) of EISFSLDP Project Participants in the Three Project Provinces

No.	Type of Land	Farm Size (Ha)					Distance of the Farm (Km)				
		S. Sulawesi		N. Sulawesi		Maluku	S. Sulawesi		N. Sulawesi		Maluku
		B	P	G	M	CM	B	P	G	M	CM
1	Home garden	0.009	0.006	0.009	0.007	0.011	0.0	0.0	0.0	0.0	0.0
2	Upland for annual crops (Tegalan)	0.51	0.64	0.97	0.46	0.52	0.95	0.81	0.3	0.9	1.7
3	Upland for tree crops (Kebun)	0.62	0.62	0.83	0.86	0.77	0.62	0.91	0.4	0.7	1.5
4	Rice field (rainfed/water pump irrigated)	0.43	-	0.58	0.30	0.82	2.18	1.00	0.4	1.0	2.5
5	Fish Pond	0.01	-	0.01	-	-	0.30	-	0.0	-	-

B: Bulukumba; P: Polmas; G: Gorontalo; M: Minahasa; CM: Central Maluku

Table A-5. T-Test Results Comparing Women from EISFSLDP Participant Households and Women from Non EISFSLDP Participant Households for Selected Variables in Bulukumba and POLMAS Districts, South Sulawesi

No.	Variables Examined	Women Participants			Women Non Participants			t	P
		n	0	SD	n	0	SD		
Bulukumba District:									
1	Total time allocation to carry out reproductive activities (minute/day)	30	400.0	181.7	30	318.2	135.1	2.2	0.95*
2	Total time allocation to attend community activities (time/month)	18	1.7	0.8	22	0.9	0.4	2.6	0.98*
3	Total time allocation for activities during leisure time (minute/day)	27	660.1	172.3	29	748.0	410.5	2.8	0.99**
Polmas District:									
1	Total time allocation to carry out reproductive activities (minute/day)	30	447.3	106.0	30	389.7	73.9	2.4	0.98*
2	Total time allocation to attend community activities (time/month)	13	1.1	0.6	27	0.9	0.7	0.4	0.50
3	Total time allocation for activities during leisure time (minute/day)	30	642.0	146.5	30	726.8	128.3	2.5	0.98*

SD: Standard Deviation; t: Calculated t; P: Degree of significance of the difference

Table A-6. T-Test Results Comparing Women from EISFSLDP Participant Households and Women from Non EISFSLDP Participant Households for Selected Variables in Gorontalo and Minahasa Districts, North Sulawesi

No.	Variables Examined	Women Participants			Women Non Participants			t	P
		n	0	SD	n	0	SD		
Gorontalo District:									
1	Reproductive activities (minute/day)	29	374.3	95.4	29	276.0	193.0	2.4	0.98*
2	Income generating activities:								
	_Farm laborer (day/season)	6	4.6	2.9	10	9.1	7.4	1.3	0.80
	_Petty trading (day/month)	5	2.4	1.3	2	6.0	2.8	1.4	0.80
	_Handicraft (day/month)	3	5.5	0.0	5	16.3	13.0	1.8	0.80
3	Community activities (time/month)								
		28	4.5	1.0	16	4.1	2.3	0.4	0.50
4	Leisure time (minute/day)								
		29	642.1	1.6	29	657.6	83.5	0.5	0.50
Minahasa District:									
1	Reproductive activities (minute/day)	30	344.1	45.8	30	309.9	80.6	2.0	0.95*
2	Income generating activities:								
	_Farm laborer (day/season)	2	3.5	0.2	2	3.2	0.3	1.2	0.50
3	Community activities (time/month)	30	3.7	5.6	30	4.1	3.9	0.3	0.50
4	Leisure time (minute/day)	30	648.3	108.6	30	651.7	107.8	0.6	0.50

SD: Standard Deviation; t: Calculated t; P: Degree of significance of the difference

Table A-7. T-Test Results Comparing Women from EISFSLDP Participant Households and Women from Non EISFSLDP Participant Households for Selected Variables in Central Maluku District

No.	Variables Examined	Women Participants			Women Non Participants			t	P
		n	0	SD	n	0	SD		
1	Total time allocation to carry out reproductive activities (minute/day)	17	437.2	84.8	28	388.4	86.3	1.9	0.95*
2	Total time allocation to carry out income generating activities:								
	_Petty trading (day/month)	3	1.8	0.9	2	1.3	0.5	0.9	0.50
3	Total time allocation to attend community activities (time/month)	17	3.3	3.2	27	3.8	3.4	1.5	0.80
4	Total time allocation for activities during leisure time	17	564.0	89.7	28	591.7	67.5	1.4	0.80

SD: Standard Deviation; t: Calculated t; P: Degree of significance of the difference