

琉球大学学術リポジトリ

インドネシア南東スラウエシの移住地における農業の現状と問題点

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Present Status and Problems of Agriculture in the Transmigration Site of South East Sulawesi-Indonesia

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Key Words : transmigration, unbalance distributed population, living standard improvement, agricultural economic activity

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Summary

The biggest population problem in Indonesia is basically uneven population distribution. In Java and Bali which contain 7% of the total land of Indonesia, the population is estimated to be 108 million or 60% of the total population of Indonesia. Faced with these disparities between the population distribution and the available land mentioned above, Indonesia addressed the problem of unproductive labors in Java and Bali by using the potential of unproductive land in other islands, through various land development programmes and the development of new settlements. The province of South East Sulawesi is one of the 21 transmigration destination areas that has been an object of transmigration settlement since 1968.

Until 1995 a total of 174,476 people have been moved to 142 settlement units, and 115 units have been handed over to the local government as new villages. Besides that, in the 1995/1996 fiscal year the number of establishment sites being developed are 27 sites which are occupied by a total of 6,054 families. Increasing the production of transmigrants is the only way to achieve a higher income, which is needed to increase their standard of living. This is closely related to activities in agriculture, processing of agricultural and non agricultural products, economic institution, investments and effective or efficient marketing.

1. Introduction

Development efforts of many developing countries are still hampered by basic problems. One of these factors is the imbalance between the population distribution and the

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environmental carrying capacity. Many countries still have population concentrations and agglomeration of activity centers that can no longer provide a decent living for the inhabitants.

According to Department of Transmigration and Forest Squatter Resettlement (here and after DOTFSR) (1995), transmigration is one the priority areas of the Government of Indonesia long term development strategy to establish and subsequently to maintain a stable national population distributed among all the provinces at densities appropriate to respective environments while following sustainable land management strategies.

Central Bureau of Statistics (here and after CBS) of Indonesia (1995) estimated that the population of Indonesia in 1995 to be 195.3 million. DOTFSR (1995) stated that the biggest population problem in Indonesia is basically uneven population distribution (Table1).

Faced with these disparities between the population distribution and the available land mentioned above, Indonesia addressed the problem of unproductive labors in Java and Bali by using the potential of unproductive land in other islands, through various land development programs and the development of new settlement.

2. Policy and Strategy on Transmigration Development

According to Statute Number 3/1972, on the Basic Stipulation for Transmigration, transmigration is "the removal and/or transfer of population from an area to settle in another area within the territory of the Republic of Indonesia, in the interest of the development of the country, or for other reasons considered necessary by the Government, based on the stipulations made within the Statute" . The objective of transmigration development include:

a) an improvement in living standards, b) regional development, c) a balanced distribution of population, d) equally distributed development throughout Indonesia, e) beneficial use of natural and human resources, f) national union and unity, and g) a strengthening of national defence and security.

Based on the implementation and financial resources, two types of transmigration could be identified : sponsored transmigration and spontaneous transmigration. Sponsored transmigration, is financed by the government, whilst spontaneous transmigration is financed by the private sector or by the transmigrant himself with partial government subsidy.

In agriculture or horticulture settlements patterned transmigrants families receive right of ownership for at least 2.0 hectares of land. Transmigrants who are not farmers, such as estate workers or fishermen are entitled to receive the right of ownership for a minimum of a quarter hectare of land for a house and garden (DOTFSR, 1994). Land holding size of transmigration settlement patterns for each family is shown in Table 2.

Table 1. Land area, projection population and population density by province/island in Indonesia, 1995.

No.	Province	Area		Population (000)	Density (people /km ²)
		(km ²)	(%)		
	SUMATRA	473,481	24.67	40,969,5	87
1.	The Special Territory of Aceh	55,392	2.89	3,860,0	70
2.	North Sumatra	70,787	3.69	11,145,3	157
3.	West Sumatra	49,778	2.59	4,328,2	87
4.	Riau	94,561	4.93	3,924,6	42
5.	Jambi	44,800	2.33	2,383,4	53
6.	South Sumatra	103,688	5.40	7,232,7	70
7.	Bengkulu	21,168	1.10	1,415,0	67
8.	Lampung	33,307	1.74	6,680,3	201
	JAVA	132,186	6.89	114,987,7	870
9.	The Special Territory of Jakarta	661	0.03	9,160,5	13,859
10.	West Java	46,229	2.41	39,336,5	851
11.	Central Java	43,206	2.78	29,688,1	868
12.	The Special Territory of Yogyakarta	3,169	0.17	2,916,7	920
13.	East Java	47,921	2.50	33,885,9	707
	NUSA TENGGARA	88,468	4.61	10,982,9	124
14.	Bali	5,561	0.29	2,902,2	522
15.	West Nusa Tenggara	20,177	1.05	3,654,8	181
16.	East Nusa Tenggara	47,876	2.49	3,582,8	75
17.	East Timor	14,874	0.77	843,1	57
	KALIMANTAN	539,460	28.11	10,520,5	20
18.	West Kalimantan	146,760	7.65	3,651,8	25
19.	Central Kalimantan	152,600	7.95	1,673,3	11
20.	South Kalimantan	37,660	1.96	2,900,4	77
21.	East Kalimantan	202,440	10.55	2,331,0	12
	SULAWESI	189,216	9.85	13,771,6	73
22.	North Sulawesi	19,023	0.99	2,652,3	139
23.	Central Sulawesi	69,726	3.63	1,947,5	28
24.	South Sulawesi	72,781	3.79	7,577,8	104
25.	South East Sulawesi	27,686	1.44	1,594,0	56
	MALUKU & IRIAN JAYA	496,486	25.87	4,051,0	8
26.	Maluku	74,505	3.88	2,094,7	28
27.	Irian Jaya	421,981	21.99	1,956,3	5
	TOTAL	1,919,317	100.00	195,283,2	102

Source: CBS of Indonesia, 1995.

Table 2. Land holding size of transmigration settlement patterns for each family.

No.	Land purpose	Food crop farming		Estate farming	In-dustrial services	In-dustrial forestry	Fisheries management	
		Up land	Low land				Fish-pond	Fishing pond
1.	Housing	0.50	0.50	0.50	0.25	0.25	0.25	0.50
2.	Land lot 1	0.50	0.50	-	-	-	-	-
3.	Land lot 2	1.00	1.00	-	-	-	-	-
4.	Land for plasma	-	-	2.00	-	-	-	-
5.	Land diversification	-	-	-	-	1.00	-	-
6.	Area for fisheries	-	-	-	-	-	1.00	-
Total		2.00	2.00	2.50	0.25	1.25	1.25	0.50

Source: DOTFSR, 1994.

Transmigrants are also entitled to receive seeds, training equipments and tools, health and educational facilities, in addition to administrative and physical security and spiritual guidance. Other input of transmigration settlement development for each family is shown in Table 3 . For their part transmigrants are obligated to abide by all regulations governing both their movement and settlement.

3. Concern for Transmigration

The candidates should be from the sending area (defined by a Presidential Decree) and from transmigration area (Allocated Population Settlement of Transmigration Area), it is commonly recognized in term "Alokasi Pemukiman Penduduk Daerah Transmigrasi" or "APPDT" .

Development of transmigration settlement not only builds houses, but also creates work opportunities. As a settlement, the standard used would be the same for all location, such as providing land, settlement infrastructure, houses and public facilities. As for working opportunities, standard used would be different depending on the type of pattern of main economic activities that could be developed.

Job/enterprises transmigrant could be varied, but for the initial stage of the settlement, it plans to accommodate various activities of main enterprises in primary, secondary or tertiary sector. At the moment 7 types of activities of main enterprises have been implemented as follows: a) integrated food cropping, b) tree crops estate, c) agroforestry, d) fresh water fishery, e) sea water fishery, f) services, and g) manufacturing and industry.

Table 3. Other input of transmigration settlement development for each family.

No.	Items	Food crop farming	Estate	Industrial service	Industrial forestry	Fisheries management	
						Fish pond	Fishing
1.	Facilities	.1unit house .1unit reservoir for clean water .1unit public facility certification	.1unit house .market distribution .certification .credit	.1unit house .market distribution .share .certification	.1unit house .market distribution .insurance .certification	.1unit house .market distribution .capital .certification .credit	.1unit house .market distribution .capital .certification .credit
2.	Foods	.12 months up land .18 months low land	.12 months .only rice	.6 months	.12 months .only rice	.12 months	.12 months
3.	Wages		.provided by private sector	.provided by private sector	.provided by private sector	.provided by private sector	.provided by private sector
4.	Tools and agriculture equipment	.1 set	.1set	.1set row materials	.1set	.1set	.1set
5.	Seeds and fertilizer	.package	.package		.package	.package	.package
6.	Training and guidance social economic and culture aspects	.package	.package	.package	.package	.package	.package
7.	mobilization	.provided by government	.provided by government	.provided by government	.provided by government	.provided by government	.provided by government

Source:DOTFSR, 1987.

4. Implementation Procedure

Development of transmigrants covers the supervision, guidance and extension, consolidation, development and stabilization of social, environmental settlement, production enterprises and social institution. Various development activities could be grouped in two fields: a) socio-cultural development b) development of economic enterprises. All the activities of transmigrants development would be carried out continuously on three stages: a) consolidation stage (1 - 1.5 year); b) development stage (1.5 - 3.0 years); c) establishment stage (> 3 years).

If certain transmigration location had achieved its development target, in general it had all the requirement to be a new settlement with its own community and the location would be handed over to the local Government. After the transfer, the location would be treated as any other normal village and would not be under the supervision and finance by DOTFSR.

5. South East Sulawesi in General

The Province of South East Sulawesi is located in the South East Gulf of Sulawesi Island between 3° - 6° South latitude and 120° 45' - 124° 60' East of Greenwich. The total land area of South East Sulawesi is estimated to be 38,140 km² with a sea area of 110,000 km² (Department of Information, 1993) (Fig.1)

According to CBS of South East Sulawesi, the population of South East Sulawesi was 1,433,074 in 1995. The dominant livelihood of the inhabitants is agriculture (38.75%) followed by services (21.52%); trade, hotel and restaurant (14.02%); transportation

and communication (8.69%). Others include: industry (2.59%), mining (4.64%), construction (4.07%), financial and rental house (5.11%) and electrical and water supply (0.61%).

The climate in the South East Sulawesi is tropical and influenced by the monsoons. From November to March the wind blows from the west, Asian and the Pacific Ocean, bringing rain to the Southern coast. May to October is characterized by dry weather, the wind blows from the eastern part of Australia. The average annual rainfall is 2,000mm. The average minimum and maximum temperatures are 24°C and 34°C respectively. The average humidity is about 82%.

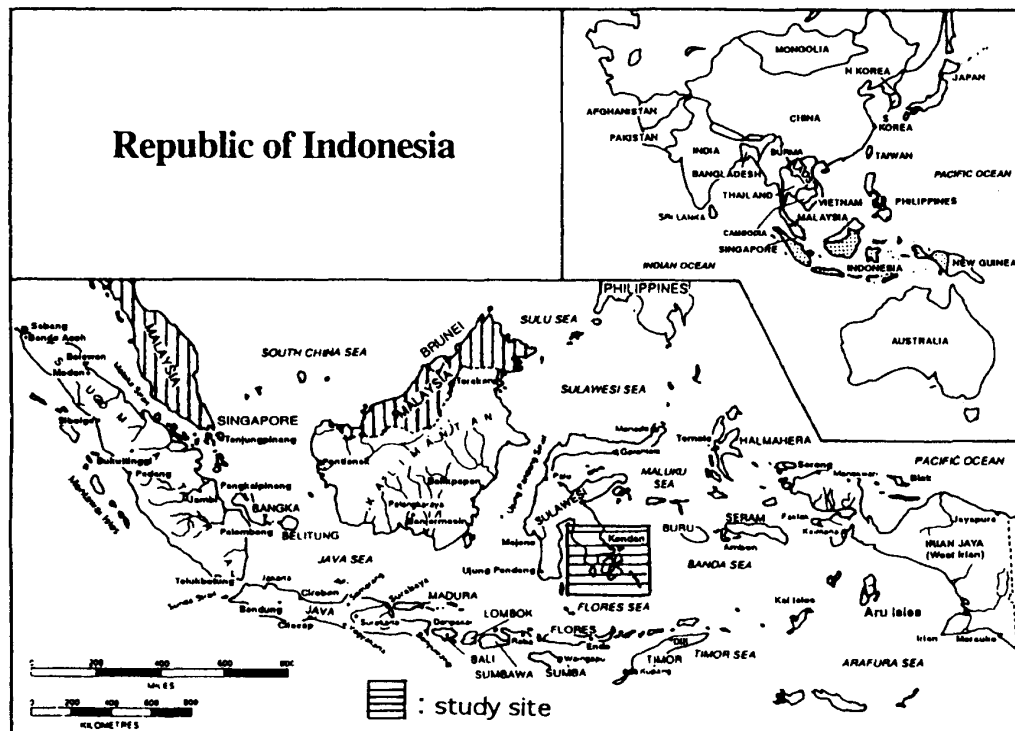


Figure 1. Map of the Republic of Indonesia

6. The Transmigration and Agriculture in South East Sulawesi

According to DOTFSR of South East Sulawesi (1996) the Province of South East Sulawesi has been an object of transmigration settlement since 1968/1969. A total of 43,363 families or almost 174,476 people had been moved between 1968 and 1995 to 142 settlement units in the area. A total 115 units of transmigration settlement have been handed over to the local government as new villages and would not be under the supervision and finance by the Department of Transmigration and Forest Squatter Resettlement. The total number of establishment sites being developed in South East Sulawesi during the fiscal year 1995/1996 are 27 sites which are occupied by 6,054 families. Based on their area of origin, general transmigration between 1985 to 1994 is shown in Table 4.

Before the development of South East Sulawesi as transmigration receiving area, the

local people merely produced rice and corn by shifting cultivation. Transmigration project in the site has successfully not only influenced the method of farming moving from shifting cultivation to settle zone, but also motivated the local people of cultivating variety of food and cash crops.

Based on DOTFSR (1987) one of the final objectives which is also most desired by transmigrants since their relocation from the recruiting areas to the settlement sites is the achievement of a higher income, which they need to increase their standard of living. A higher income would enable them to develop their families, give support to the surrounding community and the local area.

Increasing the production of transmigrants is the only way they could realize their desired ambition. This is closely related to activities in agriculture, processing of agricultural and non agricultural products, economic institutions, investments and effective or efficient marketing. Development in this matter means improvement of motivation, knowledge and skill which would lead to self sufficiency and self management of production.

Table 4. General Transmigration Coming by Area of Origin in South East Sulawesi Province, 1985-1994.

Years	Families /People	West Java	Central Java	Special Territory of Yogyakarta	East Java	Bali	West Nusa Tenggara	East Nusa Tenggara	APPDT	Total
1985/86	Families	0	0	0	0	0	0	0	0	0
	People	0	0	0	0	0	0	0	0	0
1986/87	Families	69	70	90	301	145	57	0	183	915
	People	274	3	306	1,187	538	182	0	896	3,686
1987/88	Families	0	03	0	0	0	0	0	171	171
	People	0	0	0	0	0	0	0	837	837
1988/89	Families	0	0	0	0	0	0	0	103	103
	People	0	0	0	0	0	0	0	520	520
1989/90	Families	0	0	0	0	0	0	0	390	390
	People	0	0	0	0	0	0	0	1,783	1,783
1990/91	Families	0	0	0	0	0	0	0	372	372
	People	0	0	0	0	0	0	0	1,721	1,721
1991/92	Families	139	0	0	213	50	100	0	266	935
	People	463	167	0	761	173	382	0	1,490	3,903
1992/93	Families	88	634	0	370	409	60	130	290	1,625
	People	294	278	0	1,345	1,451	245	492	1,523	6,293
1993/94	Families	0	943	0	52	319	209	44	170	836
	People	0	44	0	177	1,103	797	166	806	3,234
			183							
Total	Families	296		90	936	923	426	174	1,945	5,349
	People	1,031	559	306	3,470	3,265	1,606	658	9,578	21,977

Source: CBS of South East Sulawesi, 1995.

7. Existing Farming System and Main Commodities

Farmers in South East Sulawesi transmigration site operate land having rolling topography that grow perennial cash crop as a main commodity in a monoculture pattern or intercropped with fruit trees. In home lot, it is commonly called "Pekarangan", farmer planted coconut and fruit trees such as rambutan, banana, manggo, orange and papaya (Table 5).

Table 5. Fruits and industrial crops in transmigration establishment sites fiscal year 1995/1996.

Districts/sites	Year of Settlement	Number of families	Bananas		Oranges		Mangoes		Jack fruits		Rambutans		Coconuts		Cacaos		Chestnuts		Coffees			
			T*	P*	T*	P*	T*	P*	T*	P*	T*	P*	T*	P*	T*	P*	T*	P*	T*	P*	T*	P*
I. KENDARI																						
1. Sawah	1993/1994	65	380	100	210		216		207		67		967		1376		1023				233	
2. Sabulakoa I	1991/1992	150	1200	400	451	62	6		210		3100		1350		55800		2400				440	
3. Sabulakoa II	1992/1993	150	1506	364	331	43	671		70		695		994		15800		870				565	
4. Lampeapi	1992/1993	300	901	177	575	30	788				410		4100		33200		3600				600	
5. Hiaku SP.IIA	1994/1995	300					3000				3600											
6. Watumokala	1994/1995	80	750		200		800		960		120		550		800		150				275	
	Sub Total (I)	1045	4737	1041	1567	135	5481	0	5047	0	4392	0	7961	0	106976	0	8043	0		2113	0	
II. KOLAKA																						
1. Tanggetada	1993/1994	200	4358	674	1156		2000		2400				1952		29983		5975				225	
2. Lawaki	1994/1995	250																				
	Sub Total (II)	450	4358	674	1156	0	2000	0	2400	0	0	0	1952	0	29983	0	5975	0			225	0
III. MUNA																						
1. Lambale SKP.E1.SP.I	1991/1992	250	1976	1012	425		308		288		446		2263		5621		2657		482		847	
2. Lambale SKP.E1.SP.II	1992/1993	300	4943	2950	2113	527	1019		401		442		6500		26250	500	10350		1174		175	
3. Lambale SKP.E1.SP.III	1992/1993	400	881	414	74		510		721		1810		6200		11100		5020				540	
4. Lambale SKP.E1.SP.IV	1991/1992	350	1081	479	666		696		611		1044		10500		45200		7500		720		2250	
5. Lambale SKP.E2.SP.I	1993/1994	250	441	166	380		87		241				3500		45200		600					
6. Lambale SKP.E2.SP.IV	1993/1994	220	481	250	68		23		115		41		2900		21800		710					
7. Lambale SKP.E2.SP.V	1993/1994	180	188	98	39		27		128				2500		18800		1100					
8. Lambale SKP.E2.SP.VI	1994/1995	50					500		600													
9. Kambara IX	1994/1995	70					700		840													
10. Marobea	1994/1994	318					3180		3816													
11. Kambara	1994/1995	324					3240		3888													
	Sub Total (III)	2712	9991	5369	3765	527	10290	0	11649	0	3783	0	34363	0	173971	500	27937		2916		3272	0
IV. BUTON																						
1. Watuli	1993/1994	90	199	34	52		64		21		17		870		1600		780				270	
2. Lasalimu SP.II B	1992/1993	160	1976	111	183		236		26		137		2365		16616		1600				2350	
3. Lasalimu SP.III	1991/1992	428	1089	408	6375	175	2140		4280		6700		3145		64200		17500				10700	
4. Kinapani I	1990/1991	135	2215	750	514	16	440		369				1007		776		9100				15210	
5. Kinapani II	1991/1992	309	3101	1014			714				1200		4400		12400		12111				12111	
6. Tedubara SP.I	1994/1995	134					1340		1608													
	Sub Total (IV)	1256	8580	2317	7124	191	4934	0	6304	0	8054	0	11787	0	95592	0	41091				40641	
TOTALS (I+II+III+IV)																						
		5463	27666	9401	13612	853	22705	0	25400	0	16229	0	56063	0	406522	500	83046		2916		46251	0

Source: DOTFSR of South East Sulawesi, 1996.

Note:

T* = number of trees

P* = number of tree produce

Table 6. Food crops in transmigration establishment sites fiscal year 1995/1996.

Districts/sites	Year of settlement	Number of families	Rice (grain)		Soybeans (pod)			Corn (ears)			Peanuts (pod)			Tubers			
			P*	H*	P*	H*	Y*	P*	H*	Y*	P*	H*	Y*	P*	H*	Y*	
I. KENDARI																	
1. Sawah	1993/1994	65	40.25	24.15	42.25	2.5	0.50	0.45	6.25	1.75	2.63	0.85	0.15	0.14	9.25	0.55	8.25
2. Sabulakoa I	1991/1992	150	40.40	30.20	52.95	18.3	9.60	8.64	34.70	21.40	32.10	4.16	2.80	2.52	28.00	22.10	331.50
3. Sabulakoa II	1992/1993	150	15.75	12.60	12.60	34.5	30.00	36.00	8.75	7.50	6.75	9.25	6.50	8.25	17.75	12.50	218.75
4. Lampeapi	1992/1993	300	45.50	32.50	56.90	5.75	4.25	3.80	21.40	16.30		51.80	30.40	21.28	67.10	59.30	889.50
5. Hiaku SP.IIA	1994/1995	300															
6. Watumokala	1994/1995	80	3.50						16.50				16.00		6.10	3.00	27.50
	Sub Total (I)	1045	145.40	99.45	164.70	61.05	44.35	48.89	87.60	46.95	41.48	82.06	39.85	32.19	128.20	97.45	1475.50
II. KOLAKA																	
1. Tanggetada	1993/1994	200	41.70	37.67	113.40	60.67	56.53	28.78	68.10	64.92	24.02	57.63	57.33	33.54	45.20	25.16	359.35
2. Lawaki	1994/1995	250															
	Sub Total (II)	450	41.70	37.67	113.40	60.67	56.53	28.78	68.10	64.92	24.02	57.63	57.33	33.54	45.20	25.16	359.35
III. MUNA																	
1. Lambale SKP.E1.SP.I	1991/1992	250	68.00	40.80	61.20	2.50	2.00	2.40	21.00	18.00	32.40	15.50	13.00	15.60	96.00	13.00	97.50
2. Lambale SKP.E1.SP.II	1992/1993	300	106.00	63.60	95.40	57.00	55.00	44.00	28.00	24.00	43.20	19.00	18.50	18.50	20.75	15.25	114.38
3. Lambale SKP.E1.SP.III	1992/1993	400	214.00	186.10	279.15	87.50	52.50	57.75	96.70	64.90	51.92				115.70	89.20	1338.00
4. Lambale SKP.E1.SP.IV	1991/1992	350	115.60	84.20	126.30	42.50	38.41	42.24	30.00	25.00	32.90	41.60	21.40	18.73	56.80	39.10	592.50
5. Lambale SKP.E2.SP.I	1993/1994	250	180.00	175.00	525.00	37.30	22.38	26.86	41.80	29.40	23.50	29.40	14.30	12.73	91.70	51.60	774.00
6. Lambale SKP.E2.SP.IV	1993/1994	220	126.20	87.10	261.30	41.60	22.83	27.40	50.60	39.10	31.28	19.60	11.20	9.80	16.80	11.10	166.50
7. Lambale SKP.E2.SP.V	1993/1994	180	88.60	66.10	198.30	26.56	15.90	19.18	16.10	11.20	8.96	21.40	16.10	14.09	40.40	31.10	466.50
8. Lambale SKP.E2.SP.VI	1994/1995	50															
9. Kambara IX	1994/1995	70															
10. Marobea	1994/1994	318															
11. Kambara	1994/1995	324															
	Sub Total (III)	2712	898.40	702.90	1546.65	294.96	209.02	219.83	284.20	211.60	224.16	146.50	94.50	89.45	438.15	250.35	3549.38
IV. BUTON																	
1. Watuli	1993/1994	90	29.60	18.10	40.75	1.75	1.25	1.13	26.70	14.40	11.52				22.50	19.60	294.00
2. Lasalimu SP.II B	1992/1993	160	182.00	164.00	369.00	42.50	40.15	32.12	57.00	34.00	32.3	1.87	1.87	1.58	8.40	5.75	86.25
3. Lasalimu SP.III	1991/1992	428	649.00	646.00	1453.50	39.00	35.00	31.5	25.00	25.00	24.38	0.85	0.65	0.60	19.00	11.60	174.00
4. Kinapani I	1990/1991	135	102.40	82.60	185.85	7.25	5.25	4.2	25.00	10.75	10.21				66.80	49.10	742.50
5. Kinapani II	1991/1992	309	144.00	144.00	324.00	16.70	11.40	10.26	11.75	47.80	45.41						
6. Tedubara SP.I	1994/1995	134							64.40								
	Sub Total (IV)	1256	1107.00	1054.70	2373.10	107.20	93.05	79.21	209.85	131.95	123.82	2.72	2.52	2.18	116.70	86.05	1296.75
TOTALS (I+II+III+IV)																	
		5463	2191.87	1894.72	4197.85	523.88	402.95	376.71	649.66	455.42	413.48	288.91	194.20	157.36	728.15	459.01	6680.48

Source: DOTFSR of South East Sulawesi, 1996.

Note:

P* = planted area (hectare)

H* = harvested area (hectare)

Y* = production (ton)

Transmigrant farmers also operate upland field that grow food or secondary food crops such as upland rice, maize, tubers and legumes (peanut and soy bean) in mixed cropping pattern (Table 6). In most of the location the crops appeared to be well adapted to the existing soil and climatic condition. Some locations were found where the soil was not suitable for food crops, but more suitable for other crops. They have many animal types such as fowls, goats and cattles. The cattles are normally used for plowing the upland fields which used for food or secondary food crop production (Table 7).

Diverse production structures which are practiced in transmigration site take account of the seasonalities in climatic conditions, availability of product, harvesting times etc. This is minimizing the risk of starvation and destitution in case any one of the resources fails to produce the expected yields.

Table 7. Livestock population in transmigration establishment sites fiscal year 1995/1996

Districts/sites	Year of settlement	Number			
		of families	Cattles (heads)	Goats (heads)	Fowls (heads)
I. KENDARI					
1.Sawah	1993/1994	65	7	13	554
2.Sabulakoa I	1991/1992	150	40	184	1426
3.Sabulakoa II	1992/1993	150	68	136	1715
4.Lampeapi	1992/1993	300	100		1850
5.Hialu SP.IIA	1994/1995	300			864
6.Watumokala	1994/1995	80			310
	Sub Total (I)	1045	215	333	6719
II. KOLAKA					
1.Tanggetada	1993/1994	200	18	76	1630
2.Lawaki	1994/1995	250			575
	Sub Total (II)	450	18	76	2205
III. MUNA					
1. Lambale SKP.E1.SP.I	1991/1992	250	58	57	2511
2. Lambale SKP.E1.SP.II	1992/1993	300	62	18	2300
3. Lambale SKP.E1.SP.III	1992/1993	400	76	81	3580
4. Lambale SKP.E1.SP.IV	1991/1992	350	81	54	2790
5. Lambale SKP.E2.SP.III	1993/1994	250	16	72	956
6. Lambale SKP.E2.SP.IV	1993/1994	220		74	1658
7. Lambale SKP.E2.SP.V	1993/1994	180		57	1160
8. Lambale SKP.E2.SP.VI	1994/1995	50		76	340
9. Kambara IX	1994/1995	70			420
10 Marobea	1994/1994	318			1370
11 Kambara	1994/1995	324			1640
	Sub Total (III)	2712	293	489	18725
IV. BUTON					
1. Wakuli	1993/1994	90		6	560
2. Lasalimu SP.II B	1992/1993	160	27	14	1442
3. Lasalimu SP.III	1991/1992	428	31	213	5270
4. Kinapani I	1990/1991	135	35	57	1186
5. Kinapani II	1991/1992	309	38	73	1038
6. Tedubara SP.I	1994/1995	134			412
	Sub Total (IV)	1256	131	363	9908
TOTALS (I+II+III+IV)		5463	657	1261	37557

Source: DOTFSR of South East Sulawesi, 1996

8. Agriculture Productivity and Technology Summarized

The Proceedings of International Seminar on Agricultural Change and Development in South East Asia (ISACDESA) (1989) reported that the length of residence was proven to have significantly influenced the level of productivity. It was found out that the longer the transmigrants stayed, the better productivity would be. Initially, the nature of local environment was not well understood by common transmigrants. They needed enough orientation time to be able to handle properly resources provided in the area. This could be attributed to the fact that the area, with time can relatively be better anticipated after a period of practical experience in the site. This finding suggested that in evaluating the success, the length of settlement need to be considered.

There is a shortage of man power in the transmigration settlements, i.e. man power of the transmigrants themselves. It appears that the majority of the transmigrants could not even touch their second parcel of land.

To settle this problems, it is important to think mechanical or semi mechanical equipment or cows to substitute manual labor in the field. Cows can be used for bio-gas and fertilizer. The shortage of man power may be over come by adjusting the patterns of development to save man power. Intensification must be carried out if the transmigrants want to adopt successfully better technologies (DOTFSR, 1987).

The level and speed of technology adoption was constrained by input availability in the area and at the same time extension services provided. There was the need for having better input provision and other support services. Agricultural extension is a very important factor for the success of the farmer. DOTFSR (1987) stated that this is especially true, if the transmigrants were not farmer before. Also, because cultivation of land in the new area is different from that in their old place. Problems arise, if insufficient extension personnel are made available or if their qualifications are below the requirements.

Transmigrant farmers have better prospect to increase their income due to the increase in the productivity of industrial crops. Also, their responsiveness in adopting new technology in food or secondary food crops production is an important factor.

9. Rural Economic Institution

Government creates farmer's rural economic institution mostly in the form of village unit cooperative, which is commonly termed "Koperasi Unit Desa" or "KUD". This is considered to be an ideal economic organization which seeks to raise the living standard of farmer (Willman, 1987). Village unit cooperatives ("KUD") in transmigration establishment sites fiscal year 1994/1995 is shown in Table 8.

At the first stage the "KUD" is to accept the commodities produced by the transmigrants and sell them cooperatively. The other way round, the "KUD" takes care of the nine basic needs for transmigrants which are bought from the market. In this case, transportation is vital to prevent the profits going to other people. This would at least decrease the difference between the prices at the locations and the market. Also, the

"KUD" may coordinate the processing of post harvest crops in general.

Willman (1987) in his study found that many such cooperatives venture are not functional and failed. This is because the farmers did not identify themselves with the aims and motivations of organizations created from above by Government. Farmers organizations should be evolved from the needs and aspirations of the farmers communities themselves.

10. Marketing

The products of transmigration areas obtained from agriculture, plantations, cattle breeding, fishery, crop processing and industry could not be marketed easily. The transmigrants and extension employees did not know how to market each type of commodity to adjust to the pattern of planting. The market area was far and not easily accessible and also demand in the surrounding area led to restricted prices. Some of agricultural products are highly perishable and had a strong bearing on the marketing power resulting often in low prices. Hence, the bargaining position of the farmers is weak and also affected by the agricultural traders (Manus, 1993).

Table 8. Village unit cooperatives ("KUD") in transmigration establishment sites fiscal year 1994/1995.

District/ subdistrict	Sites	Year of settlement	Number of families	Name of "KUD"	Date of established	Corporate body number	Date of corporate body	Members of boards	Manager Yes/No	Financial support general (Rp) local (Rp) others (Rp)	Financial capital (Rp)	Activity volume in quarterly (Rp)	Numbers of activity	
I. KENDARI														
1. Lensea	1. Sewah	1993/1994	65	TPK Sama Turu	15-Feb-94			70	3	No	1,000,000		1,735,000	1 Unit
2. Lendono	2. Sabulakoa I	1991/1992	150	Kurnia Jaya	30-Apr-92	1026/BH/XX	25-Jun-94	150	4	Yes	7,500,000	7,892,000	17,586,975	10,446,925
3. Lendono	3. Sabulakoa II	1992/1993	150	Karya Tari	17-Feb-93			138	4	No		792,000	1,606,000	1 Unit
4. Wawonii	4. Lampsapi	1992/1993	300	Usaha Tari	4-Apr-93			50	4	No		1,000,000	1,250,000	1 Unit
II. KOLAKA														
1. Watubangga	1. Tanggetada	1993/1994	200	Tri Karsa	25-Feb-94	1028/BH/XX	25-Jul-94	200	4	No	1,000,000		2,260,000	1 Unit
III. MUNA														
1. Kulususu	1. Lambale SKP.E1.SP.I	1991/1992	250	Tri Mulya	22-Oct-92	1036/BH/XX	6-Sep-94	250	5	No	7,500,000	600,000	9,612,500	12,673,425
2. Kulususu	2. Lambale SKP.E1.SP.II	1992/1993	300	Medis Utama Jaya	19-Feb-93			256	3	No			412,000	3,382,000
3. Kulususu	3. Lambale SKP.E1.SP.III	1992/1993	400	Ngidi Makmur	12-Feb-93			304	3	No			3,644,500	2 Units
4. Kulususu	4. Lambale SKP.E1.SP.IV	1991/1992	350	Sumber Jaya	23-Oct-92	1003/BH/XX	24-Jan-94	270	5	No	7,500,000	600,000	10,374,750	972,775
5. Kulususu	5. Lambale SKP.E2.SP.III	1993/1994	250	Mandiri Jaya	8-Feb-94			250	3	No	1,000,000		2,177,000	1 Unit
6. Kulususu	6. Lambale SKP.E2.SP.IV	1993/1994	220	Sumber makmur	7-Feb-94			120	3	No	1,000,000		1,000,000	1 Unit
7. Kulususu	7. Lambale SKP.E2.SP.V	1993/1994	180	Sehat	5-Feb-94			168	3	No	1,000,000		1,000,000	1 Unit
IV. BUTON														
1. Lasalimu	1. Lasalimu BB	1992/1993	160	Sesami Asih	5-Mar-94			161	4	No			1,052,880	1 Unit
2. Lasalimu	2. Lasalimu III	1991/1992	428	Sumber Rajeki	27-Nov-91	993/BH/XX	19-Aug-93	307	5	Yes	10,000,000	165,093,650	17,492,000	20,722,775
3. Lasalimu	3. Kinapane I	1990/1991	135	Harapan Kita	27-Apr-92			111	3	No			2,746,500	3,802,500
4. Lasalimu	4. Kinapane II	1991/1992	309	Karya Kita	6-Mar-94	1004/BH/XX	1-Jan-94	270	4	No	4,179,775		4,754,775	7,925,250

Source:DOTFSR of South East Sulawesi, 1996.

Access to market by transmigration communities is severely hampered by bad road connection and other communication facilities. Remoteness and isolation are particularly pronounced in the case of many transmigrant villages. Therefore, the low level of economic development in the region is largely due to inadequacy of transportation facilities. As cited by Willman (1987), transportation is one of the prominent indicators of economic development in a region. New opened area of the transmigration is frequently a barrier to the rapid of transportation and communication facilities.

The transmigrants still need to get guidance on marketing for their products, taking into account the demands, marketing and current. Manus (1993) suggested that government intervention in marketing is needed to improve the efficiency with which the system operates.

11. Investment

It is well recognized that the transmigration development requires investment of capital. This would increase the economic growth. Capital investment in the transmigration site is supported by the existing village economic institution, i.e. the "KUD". Investment of capital may be carried out by: a) the "KUD" itself with capital from its own members, b) the "KUD" with capital a loan from the bank, c) cooperation between the "KUD" and private sector or government institutions (DOTFSR, 1987).

According to Willman (1987) credit systems and procedures have been some of the most important institutional constraints for development. There are three major elements which cause these constraints: a) the lack of collateral, b) the low growth of savings, c) the inadequacy of participation of transmigrants in the existing credit system. The only source of capital accumulation is the cash proceeds from agricultural products sales, which is related to the time spent during a planting seasons and in turn, depends on the technology used, weather conditions and government regulation.

As stated by DOTFSR (1987) capital investment is used to accelerate the opening up and cultivation of the land lot 2 and develop industry. In general land lot 2 is opened too late which is due to transmigrant's restricted man power available and a third party is required for cooperation in the investment. Investment and cooperatives may also be carried out to: a) process agricultural crops, b) establish home industry, c) establish small industry to support agricultural processing of the food crops as well, and d) develop the second stage of transmigration area.

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インドネシア南東スラウエシの移住地における農業の現状と問題点

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要 約

インドネシアにおける最大の人口問題は過疎地域と過密地域が存在することである。ジャワとバリはインドネシア国土の7%であり、そこに人口の60%（1億8百万人）が住んでいる。人口と土地のアンバランスな側面を是正し、ジャワとバリの過剰人口問題を解決するために、インドネシア政府は土地開発計画や新しい開拓地の開発に取り組んでいる。

南東スラウエシは1968年以来移住対策地域として指定されている21地域のうちの1地域である。1995年までに総勢174,476人が142定住地に移住し、そのうち115の定住地は地方自治体の所属となり新しい村落を形成した。さらに、1995～1996会計年度に新たに27の定住地が開発され、6,054家族が住めるようになった。移住者の生産を増やすことが高い所得を生み、それが生活水準を引き上げることにつながる。このことは農業、農産物及び非農産物の製造・加工、経済制度、投資、それに効率的な流通と密接に結びついている。