# 2.5.2 Existing Bridge Condition

# (1) General

The data of present bridge condition in the Study Area is registered on the database of Bina Marga Bridge Management System (BMS). Information on the following items can be obtained from the bridge inventory based on BMS.

- · Road link number;
- · Bridge name;
- · Location (distance from a main city);
- · Length, span, and width of bridges;
- · Type of superstructure;
- · Year of construction; and
- · Degree of damage.

Bridge conditions in the Study Area are shown in Table 2-5-4 and Figures 2-5-4 to 2-5-7.

Table 2-5-4 Existing Bridges along the National and Provincial Roads In the Central and South-east Sulawesi

Province	Central	Sulawesi	South-eas	t Sulawesi	
Road Classification	National Road	Provincial Road	National Road	Provincial Road	
Number of	708	1,026	238	501	
Bridges	1,7	734	7.	39	
Total Length	11,904	14,984	3,057	6,686	
(m)	26,	888	9,	743	
Width (m)	3.0 - 9.9	3.0 - 9.0	3.0 - 12.0	3.0 - 7.5	
Road Length	1,606	1,523	304	1,452	
(km)	3,	129	1,	756	
Bridge Length	0.74	0.98	1.01	0.46	
Road Length (%)	0	.86	0.55		

Source: Bina Marga

# (2) Overview of Existing Bridges in the Study Area

There are a total of 1,734 existing bridges (total length about 27 km) in Central Sulawesi, and a total of 739 bridges (total length of about 10 km) in Southeast Sulawesi.

There are 24 locations in Central Sulawesi and 100 locations in Southeast Sulawesi requiring bridges. The total length of sections lacking bridges translated into necessary bridge length in Central Sulawesi is 1.1 km, and 2.8 km in Southeast Sulawesi. In Southeast Sulawesi it should be noted that the total of sections lacking bridges on national roads is more significant. However, some bridges are under construction at these places.

The bridge length of most bridges is less than 20 m. These bridges are constructed with the reinforced concrete slab or girder with spans of 5 m to 10 m in length or with timber for a span of less than 10 m. There are more bridges of less than 5.0m span length in Central Sulawesi than in Southeast Sulawesi. In Southeast Sulawesi, therefore, many timber bridges and reinforced concrete slab bridges have been constructed. Many abutments of these concrete slab bridges and timber bridges are seriously damaged due to aging and low structural endurance.

Steel truss component bridges that have been imported from Australia are recently being used for bridges with relatively long spans. The number and total length of steel truss bridges in Southeast Sulawesi is much less than in Central Sulawesi. Furthermore, there are many more sections lacking bridges in Southeast Sulawesi than in Central Sulawesi. This means that, in Southeast Sulawesi, many sections where relatively long bridges are required have not been improved yet.

Regarding bridge width, most bridges are less than 6.0 m wide in number but bridges which are more than 6.0 m wide account for large part of a total length. Therefore, it can be said that there are not a great number of bridges that would need to be replaced for reasons of safety in the event that the road is widened. Although bridge width is sufficient, the degree of damage or deterioration of bridges should be certainly considered as there are a large number of bridges in the Study Area which were constructed before 1970.

There are many old bridges which were constructed before 1970, but there are also many new bridges which were constructed after 1990. In both the Central and the Southeast Sulawesi, bridge construction greatly increased after 1990.

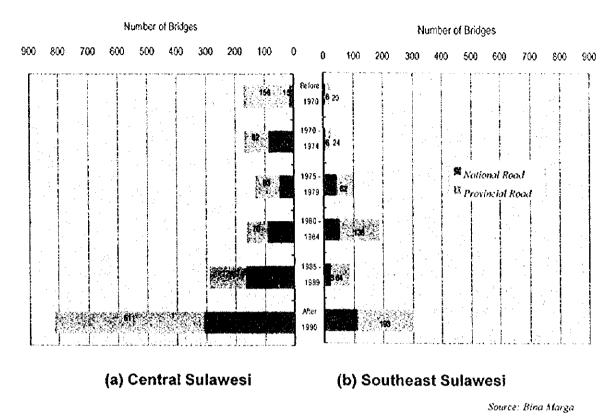
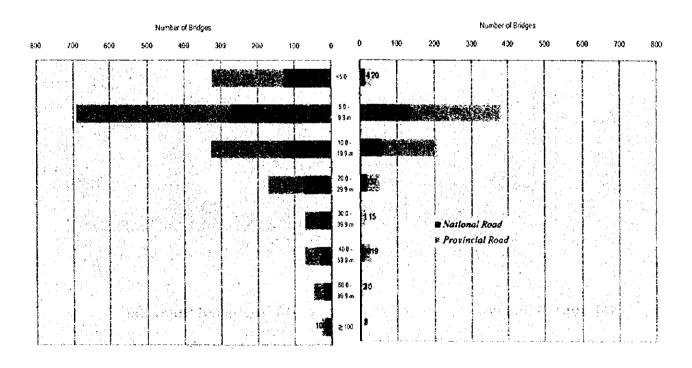


Figure 2-5-4 Number of Bridges Classified by Year of Construction



(a) Central Sulawesi

(b) Southeast Sulawesi

Source: Bina Marga

Figure 2-5-5 Number of Bridges Classified by Span Length

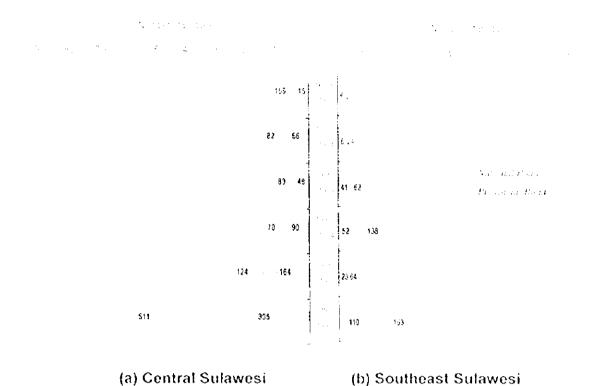


Figure 2-5-4 Number of Bridges Classified by Year of Construction

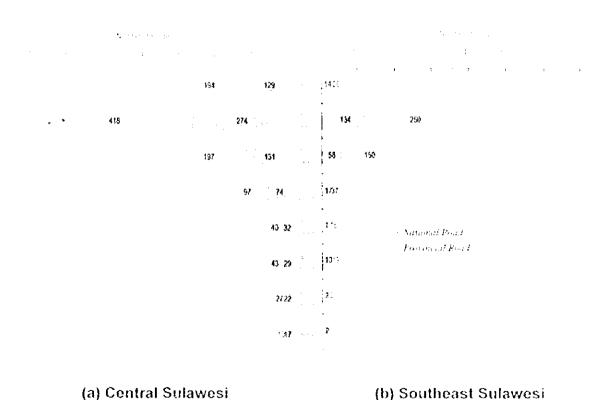


Figure 2-5-5 Number of Bridges Classified by Span Length

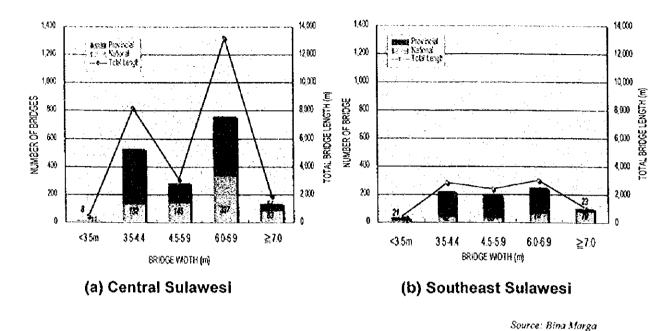
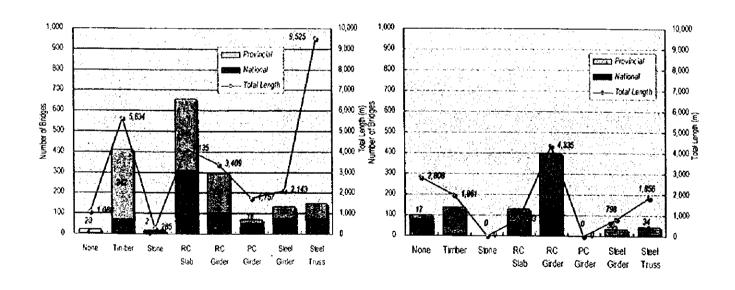


Figure 2-5-6 Number and Length of Bridges Classified by Bridge Width



(a) Central Sulawesi

(b) Southeast Sulawesi

Figure 2-5-7 Number and Length of Bridges Classified by Bridge Types

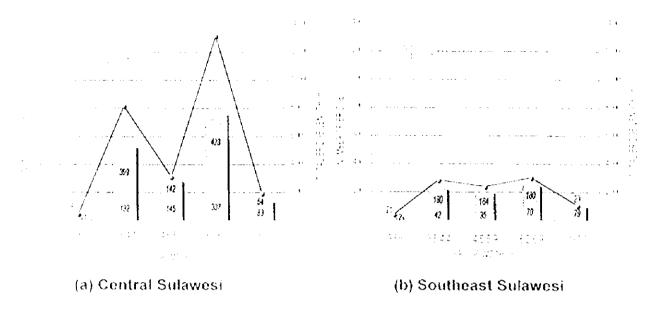


Figure 2-5-6 Number and Length of Bridges Classified by Bridge Width

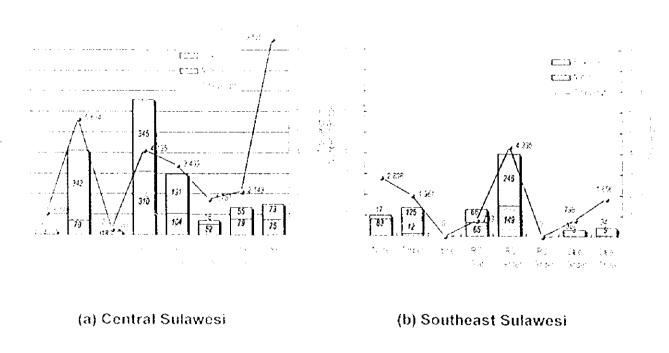


Figure 2-5-7 Number and Length of Bridges Classified by Bridge Types

# 2.6 Geological Condition in Sulawesi

## 2.5.1 Geological Structure

The main geological structural line (fault) extending northwest to southwest, Palu to Kendari, divides Sulawesi Island into two geological blocks, as shown in Figure 2-6-1. This structural line is still active and causing the eastern half of the island to move northward. Many faults have developed parallel to the main structural line, which form important geological boundaries. This means that geological the structure develops in a north-south direction on Sulawesi. The main structural line meets the North Sulawesi Trench which extends from west to east in the Sulawesi Sea, where plate subduction is still taking place in accordance with the plate tectonics theory. The sea bottom of the Makassar Strait is expanding in an east - west direction.

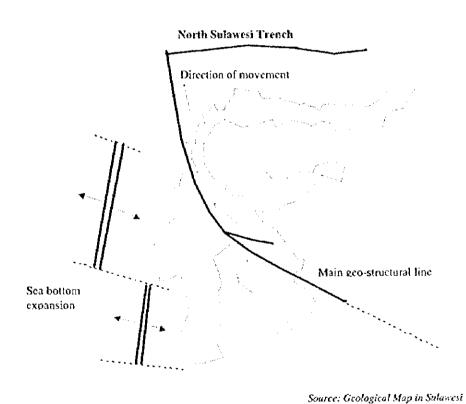


Figure 2-6-1 Concept of Geological Structure of Sulawesi Island

# 2.6.2 Lithology and Stratigraphy of the Study Area

Lithology and stratigraphy of the Central Sulawesi and the Southeast Sulawesi Provinces are classified into three areas based on type of basement rock as shown below.

- 1) Area where basement rock is comprised of metamorphic rock.
- 2) Area where basement rock is comprised of granite.
- 3) Area where basement rock is comprised of ultra-basic rock.

Types of basement rock described above are usually covered by various kinds of sedimentary rock, as shown in Figure 2-6-2.

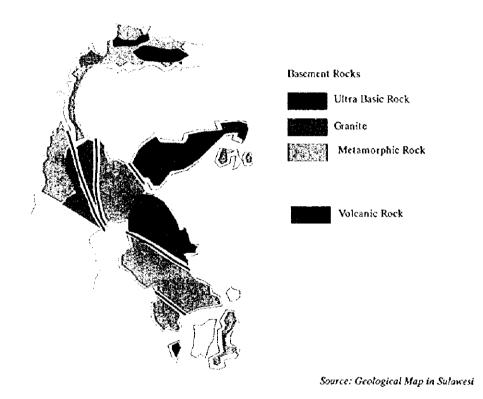


Figure 2-6-2 Basement Rock Distribution in the Study Area

Concept of geological profile is shown in Figure 2-6-3.

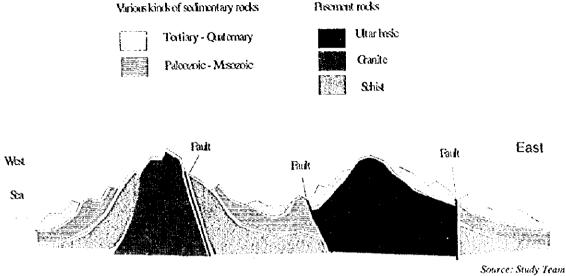


Figure 2-6-3 Geological Profile of Central Sulawesi (west - east)

Some important faults extending from northwest to southeast make boundaries between metamorphic basement rock and ultra-basic basement rock, where metamorphic rock is distributed usually on the west sides of the faults and ultra-basic rock is distributed on the east sides. In many areas, sedimentary rock dating from Mesozoic to Tertiary covers a basement of metamorphic rock, granite and ultra-basic rock. Tertiary rock is distributed throughout the hillsides, and alluvial deposits are distributed on the coastal plane. Volcanic rock is distributed only in the north end of the island. The geological situation in the Central Sulawesi and Southeast Sulawesi Provinces is as follows:

# (1) Area where basement rock is comprised of metamorphic rock

Metamorphic rock forms the geological basement in the Donggala Kambupaten and the west half of Poso Kambupaten of the Central Sulawesi Province and in a large part of the Southeast Sulawesi Province exception of the northeast portion. Areas where metamorphic rock is distributed on the ground surface are as follows;

- 1) Area around Lake Poso and the Pompangeo Mountains of Donggala Kambupaten of Central Sulawesi.
- 2) Area around the east of Palu City including Tawaeli Toboli area.
- 3) The Tangkeleboke Mountains of the Southeast Sulawesi and others.

Metamorphic rock is comprised of schist, gneiss and phyllite dating from the Palcozoic and Mesozoic. Such rock is hard in fresher parts of the rock but still rich in fractures developed parallel to each other, which is characteristic of metamorphic rock.

# (2) Area where basement rock is comprised of granite.

Granite outcroppings are found and form the geological basement of the Takolekayu Mountains and the Pegunungan Mountains located along the border between Donggala Kambupaten and Poso Kambupaten of the Central Sulawesi. There are also outcroppings along the border between Donggala Kambupaten and Toli-Toli Kambupaten of the Central Sulawesi Province. Granite is found intruding into the metamorphic of Tertiary rock. The rock is generally harder where it is fresh.

# (3) Area where basement rock is Comprised of ultra-basic rock

Ultra-basic rock forms the geological basement over a large area from the east half of Poso Kambupaten to northeast of Southeast Sulawesi. Ultra-basic rock outcrops are found in the areas below:

- 1) The Pompange and Balingara Mountains extending from Donggala Kambupaten to Luwuk Kambupaten.
- 2) Border area between Central Sulawesi and Southeast Sulawesi.

Ultra-basic rock is comprised mainly of peridotite, gabbro and serpentine dating from the Mesozoic. Though the ultra-basic rock is hard where the rock is fresh, it is generally said that the rock is easily dissolved by weathering, and sometimes forms fracture and alteration zones.

### (4) Sedimentary rock covering the basement rock

Various kinds of sedimentary rock dating from Mesozoic and Cenozoic overlay the basements of metamorphic, granite and ultra-basic rock described above. Hence, distribution of rock outcroppings on the ground surface is complicated. Rock outcropping is basement rock in some places, but sedimentary rock covering the basement rock in other places. Generally speaking, basement rock is distributed in higher places such as mountainous areas, on the other hand, newly-deposited rock is distributed in lower places such as hills and plains. Distribution of the sedimentary rock is as follows:

## Sedimentary rock of paleozoic and mesozoic

Sedimentary rock of Paleozoic and Mesozoic consists of shale, sandstone, conglomerates, limestone, and others. These rocks are distributed widely in the west and the north of the Donggala Kambupaten, in the center of the Toli-Toli Kambupaten, in mountains and hills of the center of Southeast Sulawesi, on Buton Island, and others. These rocks are hard where they are fresh.

## Sedimentary rock of Tertiary and Quaternary

Sedimentary rock of Tertiary and Quaternary consists of alternating sandstone / mudstone / conglomerates and reef limestone. These rocks are still young from a geological viewpoint and generally not strongly consolidated, hence they have the physical properties of soft rock and soils. On the other hand, limestone is relatively harder than other rock types. Sedimentary rock usually forms the hills between mountains and plains in the study area. Sedimentary rock is distributed along the Tawaeli-Toboli road in the hillsides near Tawaeli.

#### Volcanie rock

Volcanic rock is distributed in the Toli-Toli Kambupaten of Central Sulawesi. These volcanoes were active early in Tertiary period and are now inactive. The volcanic rock consists of basalt and andesite lava, as well as volcanic breceia.

### Alluyium

Alluvium is distributed along the coastal plains, flood plains and swamps along rivers in the study area. The alluvial deposits consist of unconsolidated soft clay and sand.

#### 2.7 Obstacles and Issues

The total road length of the national and province roads in the study area, is 4,884 km. The road length per unit area is 0.05 km/km2 which is not quite a half of that in Java Island. The roads in the study area, including important roads for social, economical and production activities; are of low standards, provide insufficient links, lack disaster prevention measures and are in need of maintenance. Therefore, road improvement is needed to facilitate regional activities.

Chapter 3

Socio-Economic Activities and Framework

# Chapter 3 SOCIO-ECONOMIC ACTIVITIES AND FRAMEWORK

#### 3.1 Present Conditions

#### 3.1.1 Population

The population of the study area includes the four provinces of Central (Tengah) Sulawesi, Southeast (Tenggara) Sulawesi, North (Utara) Sulawesi, and South (Selatan) Sulawesi. The populations for the two provinces of Central Sulawesi and Southeast Sulawesi were compiled according to kabupaten and kecamatan, while the population of Central Sulawesi and South Sulawesi was compiled by kabupaten. Table 3-1-1 presents the population of the study area as recorded during the 1980 census, the 1990 census, and the 1995 population registration. The table also presents the population growth rates between these periods, as well as the land areas and population densities.

During the period between 1980 and 1990, Southeast Sulawesi recorded the most rapid growth in population of the four provinces, at a rate of 3.66% per year. This was followed by Central Sulawesi at 2.9% per year, South Sulawesi at 1.4% per year, and North Sulawesi at 1.15% per year.

During the period between 1990 and 1995, Central Sulawesi recorded the most rapid population growth rate at 2.08%. During this period the population growth rate in the administrative areas of Central Sulawesi ranged from a low of 1.3% per year in Kabupaten Donggala to a high of 45.69% per year in Kotamadya Palu.

The second highest population growth rate among the four provinces from 1990 to 1995 was in South Sulawesi, which grew at an average of 1.84% per year. this was followed by Southeast Sulawesi at 1.6% per year, and North Sulawesi at 1.4% per year. In South Sulawesi the most rapidly growing population was in Kotamadya Ujung Pandang, which grew at an average of 5.99% per year from 1990 to 1995. In Southeast Sulawesi and North Sulawesi the most rapidly growing populations were in Kabupaten Kendari (2.03% p.a.) and Kotamadya Manado (3.6% p.a.), respectively.

The respective population densities of the provinces of Central, Southeast, North, and South Sulawesi in 1995 were 30, 38, 93 and 122 persons per square kilometer. Within Central Sulawesi, the population densities range from a low of only 4 persons per square kilometer in Kecamatan Bungku Utara (Kab. Poso) to a high of 1,065 per square kilometer in Kecamatan Palu Selatan (Kod. Palu). The highest population density in Southeast Sulawesi is 1,509 persons per square kilometer in Kecamatan Kendari. Kotamadya Manado has the highest population density in North Sulawesi at 2,437 persons per square kilometer. Kotamadya Ujung Pandang in South Sulawesi has the highest population density in Sulawesi at 7,186 persons per square kilometer.

Table 3-1-1 (1) Population, Population Growth and Population Density in Study Area

	in Study	Area								
1			Population		Рор. (	irowth	Area			
		Cer		Reg.		% p.a.}	km²		Pop.Am	
Province	Kabupaten/Kecamatan	1980	1990	1995	80-90	90-95		1980	1990	1995
Centeal Sulawesi	Kee, Labang Kurung	15,18}	17,770	18,978	1.58%	1.32%	403.75	.38	41	47
	Kec. Batui	47,425	67,031	72,057	3.52%	1.46%	3,152,00	15	21	23
	Kee. Totikum	12,860	14,704	15,206	1.35%	0.67%	275.50	47	53	55
· · · · · · · · · · · · · · · · ·	Kec linangkung	13,726	16,240	17,210	1.70%	1.17%	555,60	25	29	31
	Kee, Liang Kee, Bulagi	11,453	13,268	14,346	1.48%	1.57%	296.00	39	45	48
	Kec. Buko	20,747 14,089	21,920	24,210	0.55%	2.01%	854,40	24	26	28 46
	Kec. Banggai	17,003	15,477 21,541	16,075 22,382	0.94% 2.39%	0.76%	348.40	40		
	Kec. Burdo	21,152	36,179	40,376	5.51%	0.77% 2.22%	275.60 1,806.50	62	78 20	81
<del>_</del>	Kee. Kintom	8,043	9,522	10,175	1.70%	1.34%	485.60	12	20	22 21
L	Kec. Luwuk	34,023	50,939	54,999	4.10%	1.55%	687.80	50		80
	Kec. Lamala	15,173	18,333	20,485	1.91%	2.24%	635.00	24	29	32
	Kee Bolantak	11,258	12,597	13,068	1.13%	0.74%	455.50	25	28	29
	Kec. Pagimana	24,747	30,400	35,692	2.08%	3.26%	1,832.80	14	17	19
	Kab, Kuwuk/Banggal	266,956	345,921	375,259	2.63%	1.64%	12,064.45	22	29	31
	Kee. Menui Kepulauan	9,352	10,743	11,211	1.40%	0.86%	209.35	45	51	54
<u> </u>	Kee, Bungku Selatan	14,565	16,794	20,160	1.43%	3.72%	2,202.00	7	8	9
	Kee. Bungku Tengah	18,960	32,919	40.161	5.67%	4.06%	2,711.30	7	12	15
	Kec Lembo	7,035	13,734	15.337	6.92%	2.23%	1,247.75	6	<del></del>	12
	Kee, Mori Atus	8,836	9,695	11,183	0.93%	2.90%	2,394,45	4	4	
	Kee, Pamona Selatan	9,981	17,428	20,772	5.73%	3.57%	980,40	10	·	21
	Kec. Pamona Utara	20,937	25,659	27,904	2.05%	1.69%	1,861.80	11	14	15
	Kee, Lore Selatan	6,121	6,845	7,636	1.12%	2 21%	934.00	7	7	8
	Kee. Lore Utara	6,344	8,604	12,326	3.09%	7.45%	2,427.20	3	. 4	5
	Kee. Poso Pesisir	16,962	28,254	30,152	5.24%	1.31%	1,520.25	11	19	20
	Kee, Poso Kota	28,426	39,306	38,321	3.29%	-0.51%	56.60	502	691	877
	Kec. Lage	10,123	12,906	14,465	2.46%	2 31%	375.80	27	34	38
	Kec. Toja	15,344	17,828	19,387	1.51%	1.69%	2,020.00	8	9	10
	Kec. Petasi	14,157	16,733	25,431	1.69%	8.73%	2,097.70	7	8	12
	Kec. Bungku Utara	9,347	17,422	1 <b>6,</b> 006	6.42%	-1.68%	3,638.65	3	5	4
	Kec. Ulu Bongka	6,276	10,152	8,468	4.93%	-3.56%	1,654.30	4	6	5
	Kec. Ampana Tet	8,896	12,670	14,249	3,60%	2 38%	745.20	12	17	19
	Kee, Ampana Kota	25,550	25,676	25,891	0.05%	0.17%	222.15	115	116	117
	Kee. Una-Una	17,479	16,642	17,137	-0.49%	0.59%	493.90	35	34	35
	Kee, Walea Kepulauan	9,787	11,118	11,775	1.28%	1.15%	220.70	44	50	53
	Kab. Poso	264,4\$1	351,128	387,972	2.87%	2.02%	28,013.50	9	13.	14
	Kee, Kulawi	23,767	26,262	28,568	1.00%	1.70%	3,164.20		8	9
	Kec. Dolo Kec. Sigibiromaru	31,860	35,758	48,569	1.16%	6.32%	1,363.70	23	26	36
	Kee, Parigi	46,950 60,386	63,521 79,649	76.128 82.712	3.07%	3.69%	941.50 1,522.00	50	67 52	81 54
·	Kee, Marawola	24,221	29,417	32,477		0.76%				
	Kec. Banawa	37,213	45,552	49,179	1.97% 2.04%	1.98%	763.80	32	19	43
	Kec. Tawach	34,532	45,089	22,430	2.70%	-13.03%	508.50 338.20	73	90	97
	Kec. Ampibabo	29,192	34,443	37,320	1.67%	1.62%	838.50	102 35	133	66 45
	Kec. Sindue	23,587	26,901	28,311	1.32%	1.03%	511.60	46	53	55
	Kec. Sirenia	12,777	14,898	16,387	1.55%	1.92%	209.30	61	71	78
	Kec. Balaesang	19,165	22,180	23,334	1.47%	1.02%	540.30	35	4)	43
	Kec. Dampelas Sojol	37,948	46,384	49,269	2.03%	1.21%	1,378.70	28	34	36
	Kec. Tinombo	32,079	37,259	41,458	1.50%	2.16%	921.20	35	10	45
	Kec. Tomisi	32,540	44,935	49,258	3.28%	1.85%	932.00	35	13	53
	Kee, Moutong	34,876	56,926	64,354	5.02%	2.48%	1,620.30	22	35	40
	Kab. Denggala	481,113	609,204	649,754	2 39%	1.30%	15,553.80	31	39	42
	Kec. Dampal Selatan	15,177	19,075	20,177	2.31%	1.13%	367.60	41	52	55
	Kec. Dampal Utara	10,931	11,819	13,343	0.78%	2.46%	171.20	64	69	78
	Kec. Dondo	17,380	23,133	25,991	2 90%	2.36%	1,216.00	14	19	21
	Kee. Boalon	36,410	58,582	66,255	4.87%	2.49%	918.40	40	64	72
	Kee, Galang	18,962	25,657	27,758	3.07%	1.59%	559.60	34	46	50
	Kec. Utara Tob-Toli	14.302	18,143	19,448	2.52%	1.18%	549.40	26	13	35
	Kec. Biau	18,387	22,386	23,853	1.99%	1.28%	522.80	35	43	46
	Kec. Momunu	10,207	12,615	18,502	2.14%	7.96%	1.740.40	હ	. 7	H
	Kee. Bokat	10.275	11,537	17,391	1.17%	8 55%	516.40	20	55	34
	Kee, Bunebogu	10,992	12,017	15.213	0.90%	4.83%	456.40	24	26	33
	Kee, Paleloh	9,425	12,246	13,036	2 65%	1.26%	586.50	16	21	22
	Kab. Buol Toli-Toli	172,448	227,410	260,967	281%	2.79%	7,604.70	23	30	34

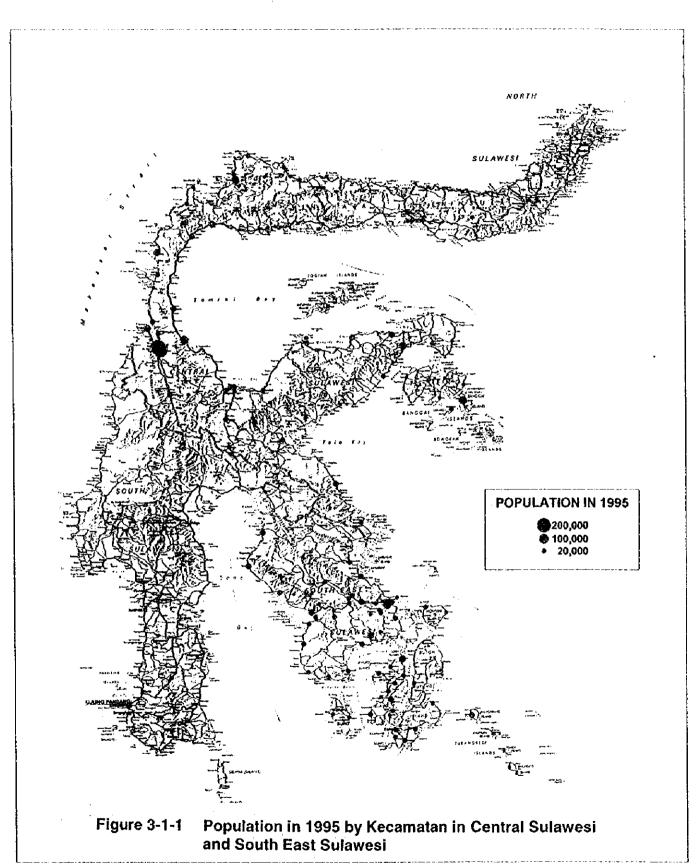
Table 3-1-1 (2) Population, Population Growth and Population Density in Study Area

	Kec. Palu Selatan		······································	75,016	I		70 46		<u>-</u>	1.065
	Kee, Palu Barat	41,457	68,911	67,697	5.219	-0.35%	65.12	637	1,058	1,046
	Kee, Palu Timor	58,073	106,532	51,999	6.264	-13.364	209.47	277	502	248
	Kec. Utara	-		25,894	•	-	107.75			240
<b></b>	Kod. Palu	99,530	175,413	220,606	5.83%	4.69%	452.80	220	387	437
<del> </del>	Central Sulawesi	1,284,528	1,709,106	1,894,558	2.90%	2.08%	63,689.25	20	27	30
Southeast Sulawest	Kec. Binangko	10,410	10.895	11.919	0.46%	1.81%	156.00	67	70	76
20GURAN SUIANEN	Kec. Tonia	12,739	12,797	12,910	0.05%	0.18%	115.00	111	131	112
	Kec. Kaledupa	15,397	13,878	14,343	-1.039	0.67%	104.00	148	133	138
	Kec. Wangi-Wangi	30,415	32,176	34,435	0.56%	1.37%	448.00	65	72	77
	Kec. Lasalimu	10,688	16,885	22,636	468%	6.04%	597.00	18	28	38
		23,798		29,229	1.70%	0.754	473.00	50	60	62
	Kec. Pasar Wajo		28,160	26,534	1.77%	0.863	206.00	104	123	129
	Kee, Sampolawa	21,327	25,426		1.83%	1.74%	142.00	128	154	168
	Kec. Batuaga	18,223	21.855	23,822	1.0.5%		83 25	'-	52	61
	Kee. Sorowalio		4,366	5,074		3.05%				114
	Kec. Bungi		8,370	8,703		0.78%	76.64		109	
	Kee, Kapontori	6,181	7,860	9,141	2.43%	3.07%	113.00	. 55	<del>- 70</del>	81
	Kee. Gg	27,976	17,012	17,662	-4.85%	0.75%	114.00	245	149	155
	Kec. Lakudo		13,652	14,296		0.93%	225.00	1	61	61
	Kec. Mawasangka	21,633	26,954	28,543	2 22%	1.15%	548.00	30	49	52
n a <b>n</b> avar	Kee, Kabaena Timor	-	14,135	14,795		0.92위	451.24		31	33
	Кес. Караева	21,803	12,335	14,368	-5.54%	3.10%	437,76	45	25]	29
	Kee. Paleang Timor		20,833	17,668		3.21%	511.08	-	41	35
	Kee, Paleang	27,071	17,390	21,767	-4.33%	4 59%	550.92	49	32	40
	Kee, Rumbia	15,602	24,941	24.523	4 80%	-0.34%	1,000.00	16	25	25
	Kee. Welio	53,496	30,712	30,200	-5.40%	-0.34%	26.77	1,998	1,147	1,128
	Kec. Beto Ambari		33,722	34,394		0.40%	34.34		982	1,002
	Kab. Buton	316.759	394,354	416,967	2 22%	1.12%	6,463.00	49	61	6.5
	Kee, Tonokuro	12,559	14,252	14,273	1.27%	0.03%	515.91	24	28	28
	Kec. Parigi		15,559	17,783		2.71%	322.90		48	55
	Kec. Kahawo	24,764	17,509	18,558	-3.41%	1.17%	327.68	76	53	57
	Kec. Tiworo Kepulauan	10,239	19,374	19,492	6.59%	0.12%	329.44	31	59	59
	Kec. Lawa	17,659	21,107	22,324	4.80%	1.13%	395.91	45	53	56
	Kee. Kusambi	-	23,197	24,655	-	1 23%	282 24		82	87
	Kee, Katobu	71,987	51,175	53,032	-3.35%	0.72%	104.87	686	138	506
- <del>-</del>	Kec. Napabalano		18,428	19,427		1.06%	284.24	-	65	68
	Kec. Wakorumba Selatan		9,905	10,372		0.93%	243.16	-	41	4.
	Kee, Bonegunu	<del></del>	7,119	10,195		7.45%	794.88	-	9	13
	Kee, Wakrumba	15,328	9,401	10,306	-4.77%	1.86%	102.88	.38	23	26
· · · · · · · · · · · · · · · · · · ·	Kec. Kalususu	21,477	19,844	27,068	-0.79%		<del></del>	24	22	31
	Kab Muna	174,013	226,870	247,485	2.69%			.36	46	5
	Kec. Tinanggea	32,586		43,538	2.02%	<del> </del>	<del></del>	33	41	45
		32,700	16,659			4.57%			34	30
<u> </u>	Kee. Palangga	ł	11,267			3,129	·		34	
	Kee, Kenda	10.060			3.02%	<del></del>		27	36	4(
<b>}</b>	Kee, Linea	19,969			2.05%				27	
	Kec. Moramo	37,114			-4 52%		+	38	24	
	Kec. Wowoni	16,165	+		-4.32%	2 00%	<del></del>	.,8	31	3.
<u> </u>	Kee, Waworete		10,877		3 30/4	+	+	81	101	10
ļ	Kec. Soropia	6,968	+	<del> </del>	2 28%	†	<del></del>	<del></del>	59	6.
	Kec. Sampara	15,970	<del></del>		2.16%	+		<del> </del>	82	8.
ļ	Kec. Ronemeto	27,605		·	-6.45%	· · · · · · · · · · · · · · · · · · ·		100	41	
ļ	Kec. Londono	<del> </del>	12,499	+	1.00	8.19%			27	
	Kec, Lembuya	21,678	+	<del></del>	4.69%		+		71	7.
<b> </b>	Kec. Padihaha	<u> </u>	27,943			0.66%	<b>+</b>			11)
I	Kee, Wawotobi	25,052	<del> </del>		-0.48%	· <del></del>			108	
	Kee, Lasalo	14,321	<del> </del>	<del></del>	2.38%	<del></del>	<del></del>	_	17	3
	Kee, Unaaba	18.012	·	1	-0.29%	<del></del>		<del></del>	96	10
	Kec. Abuki	<u> </u>	19.584			0.959		<del></del>	10	'
	Kec. Asera .	8,851	10,918	14.592	2.11%				2	<b> </b>
	Kab. Kendari	224.299	343,999	380,278	4.37%	2 037	16.184.09			
	Kec. Mandonga	27,249	68.878	75,481	9.729	1.85%	128.61	212	535	
	Kec. Posaia	14,060	19.966	22,139	3,57%	2 09%	131.76	107	152	16
T	Kec. Kendari	41,06	55.628	53,567	3.08%	-0.75%	35.50	1.157	1.567	1,50
•										

Table 3-1-1 (3) Population, Population Growth and Population Density in Study Area

	Kee, Wundulako	40,563	19,315	19,211	-7.159	-0.11%	290.47	140	66	66
·	Kec. Landongi		24,862	29,155		3.24%	653.20		38	45
	Kec. Tirawuta	23,250	12,826	14,297	-5.77%	2.20%	381.14	61	34	38
	Kec. Kolaka	37,352	33,522	36,131	-108%	1.51%	515.48	72	65	70
	Kec . Wolo		25,145	28,085		2 24%	1,190.54		21	24
	Kec. Mowewe	7,845	11,248	12,712	3.67%	2.48%	2,636.14	3	4	5
	Kec. Lasusua	18,329	33,279	35,649	6.17%	1.39%	1,290.37	14	26	28
	Kec. Pakue	16,895	34,291	39,639	7.34%	2.94%	2,101.25	8	16	19
	Kab, Kolaka	144,234	194,488	214,879	5.21%	2.01%	9,058.59	16	21	24
	Southeast Sulawesi	941,681	1,304,183	1,410,796	3.66%	1.60%	36,888.57	26	35	38
North Sulawesl	Kah, Bolang Mangondow	299,696	372,535	409,284	2 20%	1.90%	8,358.04	36	45	49
	Kab, Gorontalo	502,413	595,763	638,872	1.72%	1.41%	12,150.65	41	49	53
	Ked. Gerentale	97,610	119,745	130,645	2.06%	1.76%	64.79	1,507	1,848	2,016
	Kod. Manado	217,091	320,600	382,567	3.98%	3.60%	157.00	1,383	2,042	2,437
	Kab, Minahasa	759,591	702,604	712,748	-0.78%	0.29%	4,167.87	182	169	171
	Kab. Sangibe Talaut	238,391	260,304	267,580	088%	0.55%	2,263.95	105	115	118
	Kod. Bitung		105,638	107,397		0.33%	304.00		347	353
	North Sulawesi	2,114,822	2,477,189	2,649,093	1.15%	1.40%	27,466.30	77	96	96
South Sulawesi	Kab, Selayar	95,467	93,439	100,479	0.31%	0.40%	903.35	106	109	111
	Kab. Bulukumba	312,363	335,898	340,422	0.739	0.27%	1,154.67	271	291	295
	Kab. Baritaeng	117,272	144,554	149,349	2.11%	0.65%	395.83	296	365	377
	Kab, Jeneponto	241,627	289,799	306,654	1.83%	1.14%	737.64	328	393	416
	Kab. Takalar	173,411	206,089	212,869	1.74%	0.65%	566.51	306	364	376
	Kab, Gowa	356,514	429,157	446,313	1.87%	0.79%	1,883.32	189	228	237
	Kab. Sinjai	169,166	193,534	198,111	1.35%	0.47%	819.96	206	236	242
	Kab. Bone	622,930	610,275	606,744	-0.21%	-0.12%	4,559.00	137	134	133
	Kab, Maros	201,689	239,725	247,757	1.74%	0.66%	1,619.12	125	148	153
	Kab, Pang, Kepulauan	219,692	245,820	253,445	1.13%	0.61%	1,112 29	198	221	228
	Kab, Barru	135,354	146,653	149,912	0.80%	0.44%	1,174.71	115	125	128
	Kab. Soppeng	233,952	225,039	230,765	-0.39%	0.50%	1,359.44	172	166	170
	Kab. Wajo	372,327	357,507	401,909	-0.41%	2.37%	2,506.19	149	143	160
	Kab. Sid. Rappang	209,356	232,279	235,964	1.04%	0.32%	1,883.25	111	123	125
	Kab. Pinrang	268,424	296,973	303,113	1.02%	0.41%	1,961.77	137	151	155
	Kab, Enrekang	131,769	147,079	153,193	1.11%	0.82%	1,786.01	74	82	86
	Kab. Luwu	506,743	683.700	763,979	3.04%	2.25%	17,791,43	28	38	43
	Kab. Tana Toraja	330,476	362,693	367,370	0.93%	0.26%	3,205.77	103	133	115
	Kab, Pole, Mamasa	360,384	400,413	421,836	1.06%	1.05%	4,781.53	75	84	88
	Kab, Majene	120,782	111,284	134,087	-0.82%	3.80%	917.84	127	117	141
<u> </u>	Кав. Матоји	99,750	177,796	256,648	<del></del>	+	11,057.81	9		23
	Kod. Ujung Pandang	708,465	941,372	1,263,089	· · · · · · · · · · · · · · · · · · ·	5.99%	175.77	4,031	5,373	7,186
	Kod. Pare-Pare	86,360	101,421	103,484	1.62%	0.40%			1,021	1,042
	South Sulawesi	6,074,273	6,980,549	7,647,492	1,40%	1.84%	62,482.54	97	112	122

Source: Dalam Angka by Provincial Bappeda and Havil Census by Statistic Office Propinsi Sulawesi Tengah, Sulawesi Tenggara, Sulawesi Utara, Sulawesi Selatan



Source: Dalam Angka Kabupaten in Central Sulawesi and Southeast Sulawesi Provinces

## 3.1.2 Labor Force and Employment

The size of the labor force and the number of employed persons were compiled for each kabupaten in the study area for the years 1990 and 1995 (Table 3-1-2). The labor force over the 15 years old grew at an average 4.86% per year from 1990 to 1995 in the four provinces of the study area. During this same period the growth in the number of employed persons averaged 3.76% per year.

Southeast Sulawesi had the most rapid growth in labor force at 5.73% per year. This was followed by Central, South, and North Sulawesi at 5.43%, 5.24%, and 3.04% per year, respectively. Employment grew at 4.97%, 4.19%, 4.49%, and 1.42% per year in Southeast, Central, South, and North Sulawesi, respectively.

For the period from 1990 to 1995, the labor force, as a percentage of the population, grew from 38% to 44%. During this same period the number of employed persons as a percentage of the total population grew from 36.5% to 40%. Although the total labor force and employment expanded during this period, the percentage of the labor force that were employed fell from 96% in 1990 to 91% in 1995.

### 3.1.3 Transmigration

The study area received almost 70,000 migrants from 1990/1991 to 1993/1994 at an average of 17,500 migrants per year. Central and Southeast Sulawesi received almost 75% of the migrants, while the majority of them settled in Central Sulawesi (Table 3-1-3).

Within Central Sulawesi, most of the migrants from 1990/1991 to 1993/1994 were recorded in Kabupaten Poso. In 1994/1995 a very large number of migrants were recorded in Kabupaten Donggala. The 48,456 new migrants recorded in Kabupaten Donggala in 1994/1995 represent almost 70% of the cumulative migrants in Sulawesi from 1990/1991 to 1993/1994.

Table 3-1-2 Labor Force and Employment in Study Area, 1990 and 1995

		Labor	Employ-	Labor	Employ-	Growth Ra	te (% p.a.)
		Force	ment	Force	ment	Labor	Employ-
Province	Kabupaten/Kecamatan	1990	1990	1995	1995	Force	ment
Central Sulawesi	Kah, Kuwuk/Banggai	153,598	151,680	201,680	192,664	5.60%	4.90%
	Kab. Poso	143,157	139,830	179,477	165,173	4.63%	3.39%
	Kab. Donggala	302,183	292,276	297,314	272,296	-0.32%	-1.41%
	Kab, Buol Toli-Toli	81,795	78,245	105,503	95,708	5 22%	4.119
	Kod. Palu	_		102,815	86,845	-	
	Central Sulawesi	689,733	662,031	886,789	812,686	5,43%	4.19%
Southeast Sulawesi	Kab. Buton	144,424	139,927	171,877	157,638	3.54%	2.41%
	Kab Muna	86,353	82,313	108,724	103,238	4.72%	4.63%
	Kab, Kendari	185,923	180,683	264,900	246,507	7.34%	6.419
	Kod. Kendari			-	,	-	
	Kab. Kolaka	82,881	80,207	114,576	108,248	6.69%	6.18%
	Southeast Sulawesi	499,581	483,130	660,077	615,631	5.73%	4.979
North Sulawesi	Kab, Bolang Mangondow	150,787	148,076	180,448	162,780	3,66%	1.919
	Kab, Gorontalo	239,402	232,093	263,584	236,752	1.91%	0.40%
	Ked. Gorentalo	44,908	40,088	59,678	46,852	5.85%	3.179
	Kod. Manado	113,045	100,359	159,160	134,889	7.08%	6.092
<u> </u>	Kab. Minahasa	340,539	326,908	320,904	291,328	-1,18%	-2 28
	Kab, Sangihe Talaut	107,762	105,667	124,522	108,751	2.93%	0.584
	Kod. Bitung		-	48,972	41,685		
·	North Sulawesi	996,443	953,191	1,157,268	1,023,040	3.04%	1.429
South Sulawesi	Kab. Selayar	35,974	33,952	43,502	40,831	3.87%	3.76
	Kab, Bulukumba	102,384	97,670	113,896	106,777	2.15%	1.80
	Kab. Bantaeng	47,354	46,759	64,828	61,652	6.48%	5.69
	Kab, Jeneponto	75,637	73,222	174,660	173,017	18.22%	18.76
<u> </u>	Kab. Takalar	71,860	69,683	108,146	106,396	8.52%	8.83
	Kab. Gowa	151,45	145,124	172,570	157,189	2.65%	1.61
	Kab. Sinjai	57,53	55,749	27,958	73,640	6.26%	5.73
	Kab. Bone	203,110	190,233	237,44	214,88	3.17%	2.47
	Kab. Maros	74,36	69,812	94,058	88,560	4.81%	4.87
	Kab. Pang. Kepulauan	75,03	69,244	91,97	88,78	2 4.83%	5.10
	Kab. Barru	46,78	41,600	60,54	52,900	5.29%	4.92
	Kab. Soppeng	80,52	+		17,760	0 1.769	0.47
	Kab. Wajo	133,44	<del>                                     </del>		2 132,19	7 2.197	0.42
	Kab. Sid. Rappang	78.88	<del></del>	<del> </del>		2.129	0.73
············	Kab. Pinrang	90,45	<del></del>	<del></del>	<del></del>		4.39
<u> </u>	Kab. Enrekang	46,89	<del></del>	· · · · · · · · · · · · · · · · · · ·			5.15
<u> </u>	Kab. Luwu	230,33	+	<del></del>	+	+	3.76
	Kab, Tana Toraja	113,96	+		<del></del>		
	Kab. Pole. Mamasa	152,64	<del>                                     </del>		+	+	
	Kab. Majene	47,71			<del> </del> -		<del></del>
	Kab. Mamuju	74,41	<del></del>	<del> </del>	1		<del></del>
<b></b>	Kod. Ujung Pandang	283,80	<del></del>		<del></del>	+	+
		28,66	<del></del>		+		<del></del>
	Kod. Pare-Pare South Sulawesi	2,303,25	+		+		+

Source: Dulam Angka Propinsi by Provincial Bappeda and Hasil Census by Statistic Office

Table 3-1-3 Transmigration in Study Area

<del>agandiyya, saanga ajim sa na kanlana malik mili salada</del>		1990/	1991/	1992/	1993/	1994/
Province	Kabupaten/Kecamatan	1991	1992	1993	1994	1995
Central Sulawesi	Kab, Luwuk/Banggai	2,463	1,904	1,818	1,072	2,024
	Kab, Poso	5,297	3,078	5,686	5,244	3,663
	Kab. Donggala					48,356
	Kab, Buol Teti-Teli	2,146	2,146	2,146	2,146	
	Kod. Palu					
	Central Sulawesi	9,906	7,128	9,650	8,462	54,043
Southeast Sulawesi	Kab. Buton	1,723	1,750	874	738	539
	Kab Muna	0	0	1,488	2,001	3,572
	Kab. Kendari	675	1,867	2,176	260	2,500
	Kod. Kendari	1				
	Kab. Kolaka	0	726	0	756	775
	Southeast Sulawesi	2,398	4,343	4,538	3,755	7,386
North Sulawesi	Kab, Bolang Mangondow					
	Kah. Gorontalo		Ī			
	Kod. Gorontalo					
	Kod. Manado					
	Kab. Minahasa					
	Kab, Sangihe Talaut					<del></del>
	Kod. Bitung					
	North Sulawesi					
South Sulawesi	Kab. Selayar					
	Kab. Bulukumba		1			
	Kab. Bantaeng				,	
	Kab. Jeneponto					
	Kab. Takalar					
	Kab. Gowa					
	Kab. Sinjai					
	Kab. Bone					
	Kab, Maros					
	Kab, Pang, Kepulauan					
	Kab. Barru					
	Kab, Soppeng					
	Kab. Wajo					
	Kab. Sid. Rappang					
	Kab. Pinrang					
	Kab, Enrekang					
	Kab. Luwu	94	216	0	0	1,456
	Kab. Tana Toraja					
	Kab. Pole. Mamasa					
	Kab. Majene					
	Kab. Mamuju	4,927	6,080	6,104	2,287	6,773
	Kod. Ujung Pandang					
	Kod. Pare-Pare					
	South Sulawesi	5,021	6.296	6,104	2,287	8,229

Source: Data and Information from Regional Transmigration Office

#### 3.1.4 Economic Situation

### (1) Central Sulawesi

## 1) General

The GRDP of the province excluding oil/gas production increased at an annual growth rate of 8.7% on average from 1988 to 1993, well above the national average (7.7%) recorded during the same period. Most revenues of the province are derived from agriculture, accounting for about 45% of the GRDP in 1993. The growth rate of agriculture is still high in comparison to the national average rate.

#### 2) Dominant Sector

Agricultural Sector (45.18% of GRDP in 1993)

The income of Central Sulawesi is dominated by the agricultural sector. The main products of this province are copra, clove, wood, rattan, fish and quarry material. Plantation products for inter-island trade such as copra and cloves are shipped to Java. Forestry products such as wood and rattan are basically processed in this area before being exported or shipped to other islands. As a part of development of the handicraft industry, ebony (black wood) is being considered as a product to be processed (as handicraft) before shipping. Large-scale agricultural areas will be developed in Kabupaten Poso, Toli-Toli and Banggai.

# High-Growth Sector

The highest growth sectors during the five-year period between 1998 and 1993 were Electricity, Gas, and Water (13.9% per year on average), followed by Agriculture (10.8%), Trade, Restaurant & Hotel (8.8%), Transport & Communication (8.5%), and Construction (8.2%). Reference is made to Table 3-1-4, Table 3-1-5 and Figure 3-1-2.

Table 3-1-4 GRDP by Industrial Origin, 1988 and 1990 at 1983 Constant Prices (Rp. Billion)

Industrial Origin	1938	4.7	1993	<b>%</b>	Annual Growth
		Share		Share	Rate, %
1 Agriculture	199,581	41.00	333,374	45.18	10.81
2.Mining & Quarrying	12,095	2.48	17,368	2.35	7.51
3.Manufacturing	34,582	7.11	45,180	6.12	5.46
4. Electricity, gas, water	1,911	0.40	3,726	0.50	13.90
5.Construction	32,629	6.64	47,959	6.5	8.22
6.Trade hotels restaurant	63,044	12.95	96,370	13.06	8.86
7.Transport,communication	45,152	9.41	69,032	9.35	8.54
8.Banking, other inancial intermediaries	11,474	2.36	14,667	1.99	5.03
9.Ownership of dwelling	18,320	3.67	22,067	2.99	3.79
10.Public administration	57,628	11.84	75,853	10.28	5.65
11 Services	9,921	2.04	12,326	1.67	4,44
Non oil/gas product	486,776	100.00	737,922	100.00	8.68
Oil gas product	0	. 0	0	0	0
GRDP	486,776	100.00	737,922	00.001	8.68

Source: Central Bureau of Statistics, Regional Income of Provinces in Indonesia by Industrial Origin

Table 3-1-5 Gross Domestic Product by Industrial Origin at 1983 Constant Market Prices (Million Rp.) Central Sulawesi

	INDUSTRIAL OFFIGIN	1984	1985	1986	1987	1988	1989	1930	1991	1392	1993
};·	AGRICULTURE	151.795	161,235	168,016	187.690	199,581	224,104	245.585	269,902	297,911	333,374
li i	FARM FOOD CROPS	74,132	79.989	75.991	80,630	89,974	97,903	105,106	112.341	119,901	135,823
1 2	FARM NONFOOD CROPS	41,401	47,273	55.158	66,808	72,376	77,691	85,917	94,252	102,720	105,994
انتا	ESTATE CROPS	1.352	1.321	598	838	651	721	790	433	543	742
lii	LIVESTOCK	13,966	14,140	13,644	13,931	14,872	16,234	18,693	22,834	29,198	36,454
16.5	FORESTRY	4 842	5,528	7.715	10,010	5,524	9,350	9,713	9,183	9,571	10,450
6	FISHERY	13,102	12,984	14,910	15,473	16,184	22,205	25,366	30,853	35,973	43,911
150	MINING & QUARRYING	9,877	10 623	11,502	10,055	12,095	14,163	14,992	15,829	16,822	17,368
2.5	CRUDE PETROLEUM & NATURAL GAS	ol	0	` o	o l	o	0	0	o	٥	0]
2.2	NON CRUDE PETROLEUM & NATURAL GAS	اة	0	ól	ol	C	0	Ð	ા	이	6
3	QUARRYING	9.877	10,623	11.502	10,055	12,095	14,163	14,992	15 829	16,822	17,368
1	MANUFACTURING INDUSTRIES	23,422	25,079	29 572	32,670	34.634	36,582	49,185	42,123	43,467	45.180
Ы	LARGE & MEDIUM SCALE INDUSTRIES	16,168	15,965	18 885	20,817	18,085	19,122	19,621	20,603	21,086	21,579
132	SMALL SCALE & HOME INDUSTRIES	7,254	B.114	10.687	11,853	16,549	17,460	20,564	21,520	22,381	23,501
33	PE IBOLEUM REFINAERY	6	6	0	0	o	0	0	0]	0	. 6
134	ING	ŏŀ	ò	ી	0	0	o	. 0	. 01	. 0	0
122	ELECT. GAS & WATER SUPPLY	5,115	1,094	1,357	1,847	1,944	2,162	2,521	2,693	3,341	3,72€
i.	ELECTRICITY	912	980	1.223	1,693	1.806	2.040	2,314	2.432	3,021	3,194
12	GAS	- 6	0	61	ol	0	. i ol	0	o t	0	C C
1 3	WATER SUPPLY	199	114	134	164	138	122	207	251	320	532
1-3	CONSTRUCTION	26,725	26,854	29.977	26,953	32 306	34,629	40,345	43,616	46,114	47,959
F:	TRADE, RESTAURANT & HOTEL	47,178	51,580	56.BC5	60,006	63,044	67,006	71,951	82,652	89,889	96,370
5 1	WHOLE SALE & RETAIL TRADE	46,167	50,531	55,721	58,773	61,763	65,577	79,402	80,494	88,022	93,710
5.2	RESTAURANT	366	331	416	497	533	587	926	€81	734	835
6.3	HOTELS	645	658	726	736	749	842	623	1,022	1,133	1,825
1-	TRANSPORT & COMMUNICATION	37,956	38.011	38,073	42,428	45.829	49,152	52,827	56,022	62,341	69,032
1/4	RAILWAY TRANSPORT	37,556	00,00	0	,	0	o	C	ol	0	C
7.2	ROAD TRANSPORT	27,800	23,199	28,760	32,526	34,045	35,654	38,673	41,048	43,969	49,494
1.3	INLAND WATER TRANSPORT	27,000	0	0	0	0	i o		ol	C	0
7.4	SEA TRANS PORT	1,707	1,885	2.045	2,349	3.015	3,968	4,673	5,068	6,634	7,110
7.5	ARI TRANS PORT	4.585	3,870	3,765	3.446	4,151	4.095	3,654	3,550	3,970	3,740
a	SERVICE ALLIEG TO TRANSPORT	2.848		2,119		3.068		3.796	4,028	5,138	5,840
1.7	COMMUNICATION	1.010	1,151	1,384	1,505	1,550		2,031	2,331	2,630	
15-	BANKING & OTHER FINANCIAL INTERMEDIABLES	6.360	6.305	7.007	7,358	11,474	10.551	10.792	11,553	12,484	14,667
13	OWNERSHIP OF DWELLING	15,190	15,602	16,314	17,084	18,320		20.578	21,741	21,896	22,067
15	PUBLIC ADM. & DEFENCE	48.028	48,974	52.808	53,890	57,628		65,618	€8,947	72,808	75,853
113	SERVICE	€,790	7.266	7,968	9,463	9,921			11,005	11,609	
17	TOTAL GOP	374,432				486.776			626,073		
13	TOTAL OIL GAS & ITS PRODUCTS		232,023		1 0	- 33,136		C	0	0	0
13	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	374,432	392,623	419,459	443,444	436,776	529,449	575,969	626,073	678,682	737,922

SOURCE: REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

GRO	SS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN AT	1983 CONS	<u>FANT MARKE</u>	et pricesu	VILLION RP.						
f	INDUSTRIAL ORIGIN	1984	1985	1986	1987	1988	1989	1990	1931	1992	1993
1	AGRICULTURE	151,795	161,235	168,016	187,690	199,581	224_104	245,585	269,902	297,911	333,374
2	MANENG & QUARRYING	9,877	10,623	11,502	10,055	12,095	14,163	14,992	15,823	15,822	17.368
1	MANUFACTURING INDUSTRIES	23,422	25,079	29,572	32,670	34,634	36,582	40,185	42,123	43,467	45,180
14	ELECT, GAS & WATER SUPPLY	1,111	1,094	1,357	1,847	1,944	2,162	2,521	2,683	3,341	3,726
Š	CONSTRUCTION	26,725	26,654	29,977	26,953	32,306	34,629	40.345	43,616	46,114	47,959
lš –	TRADE, RESTAURANT & HOTEL	47.178	51,580	56.865	60,000	63,044	67,006	71,951	82,652	89,889	96,370
Į,	TRANSPORT & COMMUNICATION	37,956	38.011	38,073	47,428	45,829	49,152	52,827	56,022	62,341	69,032
1	BANKING & OTHER FINANCIAL INTERMEDIARIES	6,360	6,305	7.007	7,358	11,474	10,551	10,792	11,553	12,484	14,667
13	OWNERSHIP OF DWELLING	15.190	15,692	16.314	17,084	18.320	19,332	20,573	21,741	21,896	22,067
io.	PUBLIC ADM. & DEFENCE	49,028	48.974	52,808	53,830	57,628	61,415	65,618	68,947	72,808	75,853
1	SERVICE	6,790	7.266	7,968	9,463	9,921	10.353	10.575	11,005	11,609	12,326
13	TOTAL GOP	374,432		419,459	449,444	486,776	529,449	575,969	€26,073	678 682	737,922
13	TOTAL OIL GAS & ITS PRODUCTS	0.1,132	o	0	ol	0	. 0	0	O	이	0
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	374,432	392,623	419,459	449,444	486,776	529,449	575,969	626,073	678,682	737,922
	1017217110070111007011										

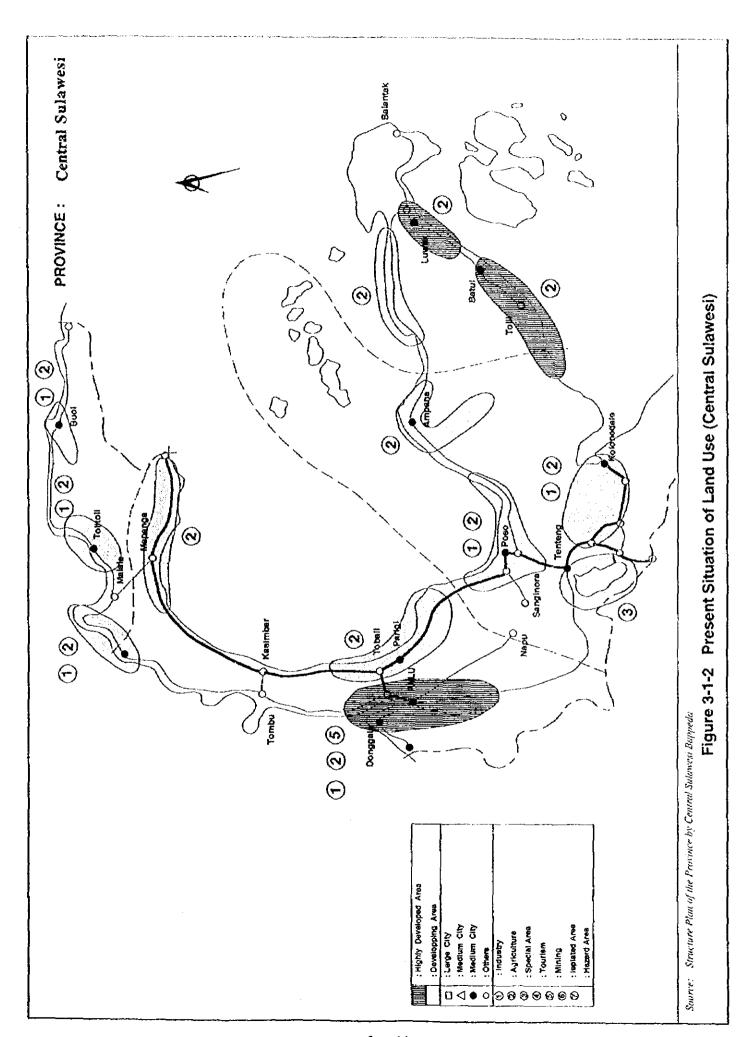
SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

ങ	OWITH RATE OF GROSS DOMESTIC PRODUCT BY IND	OSTRIAL OF	RIGEN AT 196	ONSTAN	T MARKET	PRICES					<u> </u>
<u> </u>	INDUSTRIAL ORIGIN	1984 1985	1985-1986	1986-1987	1987-1988	1988-1989				1992-1993	1983-1993
1	AGRICULTURE	6 22%	4.21%	11.71%	6 34%						
2	MINING & QUARRYING	7.55%	8.27%	-12 58%	20 29%					3.25%	
6	MANUFACTURING INDUSTRIES	7.07%	17.92%	10.48%	6.01%						5.46%
4	FLECT, GAS & WATER SUPPLY	-1.53%	24.04%	36 11%	5.25%	11.21%					
5	CONSTRUCTION	0.48%	11.63%	-10 09%							
č	TRADE, RESTAURANT & HOTEL	9 33%	10 25%	5 52%				14.87%			
7	TRANSPORT & COMMUNICATION	0.14%	0.16%	11.44%	8.02%	7.25%	7.48%				
3	BANKING & OTHER FINANCIAL INTERMEDIARIES	-0.86%	11.13%	5.01%				7.05%			
la l	OWNERSHIP OF DWELLING	2.71%	4.56%	1.72%	7.23%	5.52%	6.45%	5.65%			
10	PUBLIC ADM. & DEFENCE	197%,	7.83%	2.05%	6 94%	657%	6 84%				
111	SERVICE	7.01%	9.66%	18.76%	4.84%	4.35%					
12	TOTAL GOP	4.86%	6.64%	7.15%	8 31%	8.77%	8.79%	8.70%	8,40%	8.73%	8.68%
13	TOTAL OIL GAS & ITS PRODUCTS								1	١ ٠٠٠	
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	4.86%	6.84%	7.15%	8.31%	8 77%	8.79%	8.70%	8.40%	8.73%	8 68%

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

;Ot	ISTRIAL STRUCTURE			T	*******			·	4824	4888	
	INDUSTRIAL ORIGIN	1984	1985	1986	1987	1988	1989	1990	1991_	1992	1993
	AGRICULTURE	40.54%	41.07%	40 06%	41.76%	41.00%	42.33%	42.64%]	43.11%	43.90%	45.1B9
	MINING & QUARRYING	2.64%	2.71%	2 74%	2 24%	2.48%	2.€8%	2.60%	2.53%	2.48%	2.359
	MANUFACTURING INDUSTRIES	6.26%	6 39%	7.05%	7.27%	7.11%	6.91%	6.98%	6.73%	6.40%	6.129
	ELECT GAS & WATER SUPPLY	0.30%	0.28%	0.32%	0.41%	0.40%	0.41%	0 44%	0.43%	0.43%	0.501
	CONSTRUCTION	7.14%	6.84%	7.15%	6.00%	6.64%	6 54%	7.00%	6 97%	6 79%	6 509
	TRADE, BESTAURANT & HOTEL	12 60%	13.14%	13.56%	13 35%	12.95%	12 66%	12.49%	13.20%	13.24%	13.06
	TRANSPORT & COMMUNICATION	10.14%	9 68%	9 08%	9.44%	9.41%	9 28%	9.17%	8.95%	9 19%	9.35
	BANKING & OTHER FINANCIAL INTERMEDIARIES	1.70%	1.61%	1.67%	1.64%	2.36%	1.93%	1.87%	1.85%	1.84%	1.99
	OWNERSHIP OF DWELLING	4.06%	3 97%	3 83%	3 80%	3.76%	3.65%	3.57%	3.47%	3.23%	2.99
0	PUBLIC ADM. & DEFENCE	12 83%	12.47%	12.59%	11.99%	\$1.84%	11.60%	11.39%	11.01%	10 73%	10.28
í	SERVICE .	1 81%	1 65%	1.90%	2.11%	2.04%	1.96%	1.84%	1.76%	1.71%	1.679
,	TOTAL GDP	100 00%	190.00%	100 00%	130.00%	100.00%	100 00%	100.00%	100 00%	100 00%	100 00
3	TOTAL OIL GAS & ITS PRODUCTS	0 00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
í	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	100 00%	100 00%	100.00%	100 00%	100.00%	100 00%	100 00%	100.00%	100 00%	100 00

SOURCE: REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRD PUSAT STATISTIK, JAKARTA INDONESIA



3 - 11

## (2) Southeast Sulawesi

### 1) General

The GRDP of the province excluding oil/gas products increased at an annual growth rate of 9.1 percent on average between 1988 and 1993, well above the national average rate recorded during the same period. The economy is dominated by primary industry, which accounted for about 44% of the GRDP in 1993.

#### 2) Dominant Sector

### Agricultural Sector (43.62% of GRDP in 1993)

Similar to other provinces in Sulawesi, the economy of Southeast Sulawesi has been dominated by the agricultural sector. The agricultural sector holds the greatest share of provincial economy as shown in Table 3-1-6. The main products of this sector are rice, cacao, water apple, cotton and wood. Plantation export commodities are copra, cotton, rattan, sawn wood, water apple, cacao and clove.

### 3) High-Growth Sector

The highest growth sectors during the last five-year period between 1988 and 1993 were Electricity, Gas, and Water (14.5% per year on average), followed by Banking and other financial intermediaries sector (13.9%), Manufacturing (13.6%), Construction (13.1%), Services (10.6%), and Trade, Hotels & Restaurant (10.5%). Reference is made to Table 3-1-6, Table 3-1-7 and Figure 3-1-3.

Table 3-1-6 GRDP by Industrial Origin, 1988 and 1993 at 1983 Constant Prices (Rp.Million)

Industrial Origin	1988	74	1993	<b>%</b>	Annual Growth
		Share	<u>L</u>	Share	Rate, %
1.Agriculture	179025	42.55	284235	43.62	9.69
2.Mining & Quarrying	23330	5.54	28405	4.36	4.02
3.Manufacturing	7792	1.85	14769	2.27	13.64
4.Electricity.gas.water	1924	0.46	3780	0.58	14.46
5.Construction	12623	3.00	23282	3.57	13.02
5. Trade, botels, restaurant	54477	12.95	89880	13.79	10.53
7.Transport.communication	50219	11.93	64029	9.83	4.98
B.Banking, other financial intermediaries	3641	0.87	6987	1.07	13.92
9.Ownership of dwelling	16826	4.00	20444	3.14	3.97
10.Public administration	67210	15.97	111632	17.13	10.68
H.Services	3711	0.88	4224	0.65	2.62
Non oil/gas product	420778	100.00	651667	100.00	9.14
Oil gas product	0	0	0	0	0
GRDP	420778	100.00	651667	100.00	9.14

Source: Central Bureau of Statistics, Regional Income of Provinces in Indonesia by Industrial Origin

Table 3-1-7 Gross Domestic Product by Industrial Origin at 1983 Constant Market Prices (Million Rp.) Southeast Sulawesi

INDUSTRIAL ORIGIN	1964	1965	1986	1987	1988	1989	1990	1931	1992	1903
1 AGRICULTURE	151 656	144 611	163.04€	171,140	179,025	197,80€	231.687	275.757	271,113	284,235
I FARM FOOD GROPS	84.495	€8,624	80,074	75,855	80,468	83,201	87,335	93,251	108,287	93,711
1.2 FARM NONFOOD CROPS	22.964	28,475	30,965	35,819	35,406	49,882	72,146	108,927	93,978	111,194
1-3 ESTATE CROPS	119	t 40	107	51]	81	75	c	94	6	c c
14 LIVESTOCK	17.5831	20,528	21,717	26,249	29,090	30,581	33,710	36,000	27,790	29,134
1.5 FORESTRY	9.536	7,679	7,827	9.090	10,695	7,73€	9,737	6,572	6,981	9,964
1 6 FISHERY	16,959	19,165	22,416	24.067	23,283	26,331	28,950	30,913	34,077	34,232
2 MINING & OUARRYING	27,926	27,375	19,172	10.735	23,330	24,145	24,639	21,383	28,645	28,405
2-1 CRUDE PETROLEUM & NATURAL GAS	c c	o	0	ା	o[	0	0	0]	c	C
2.2 NON CRUDE PETROLEUM & NATURAL GAS	25,786	24,643	16,201	6,965	19,365	19,702	19,88€	22,292	23,262	22,761
2-3 OUARRÝING	2,140	2,732	2,971	3,770	3,965	4,443	4,753	5,097	5,383	5,644
MANUFACTURING INDUSTRIES	2,329	4,025	5,629	6.748	7,792	8,849	11,061	11,691	14,505	14,769
3-1 LARGE & MEDIUM SCALE INDUSTRIES	1.188	1.811	2,508	2,535	2,846	3,154	4,883	5,128	7,727	7.423
32 SMALL SCALE & HOME INDUSTRIES	1.10	2.214	3,121	4 213	4,946	5,695	6.178	6,563	6.778	7,346
3.3 PETROLEUM REFINAERY	0	া	0	이	c	0	이	0	0	c
34 LNG	ol	ō1	0	o o	Ć.	€	이	이	0	C
4 ELECT GAS & WATER SUPPLY	923	1,268	1,515	1,673	1,924	2,081	2,428	3,039	3,395	3,780
11 ELECTRICITY	828	1,137	1,351	1,501	1,720	1,835	2.10€	2,617	3,128	3,500
42 GAS	0	0	0	o o	0	0	o	0	0	0]
13 WATER SUPPLY	95	131	£54	172	204	246	322	422	267	274
5 CONSTRUCTION	8.913	9.200	9,760	12,121	12,623	13,845	14,928	19,022	22,112	23,282
6 TRADE, RESTAURANT & HOTEL	36.364	42,263	47,324	52,358	54,477	59,165	67,565	77,039	79.091	89,880
16-1 WHOLESALE & RETAIL TRADE	35,753	41,465	46,497	51,488	53,592	58,275	66,600	76,063	78,084	88,754
5-2 RESTAURANT	376	554	590	611	623	645	690	701	724	614
8-3 HOTELS	235	244	247	259	262	265	269	275	583	312
7 TRANSPORT & COMMUNICATION	37,241	38,296	44.919	48,156	50,219	57,878	58,968	50,309	60,981	€4.029
7-1 RAILWAY TRANSPORT	08	0	0	0	. 0	0	ୀ	0	0	o.
7-2 BOAD TRANSPORT	33,233	34,033	40,290	43,368	45,191	52,95€	53,642	44,231	53,489	55,983
7.3 INLAND WATER TRANSPORT	اه	C	0	. 0	0	liol	0	0	6	C-
1/4 SEATRANS PORT	2,072	2,142	2,270	2,348	2,397	2,479	2,636		2,975	3,539
7-5 ARTBANSPORT	1,343			1,585	1,767	1,817	1,935	2,332	3,094	3,491
7.6 SERVICE ALUED TO TRANSPORT	l ol	0	6	0	. 0	0	0	0	0	0
7.7 COMMUNICATION	593	619	712		874		753		1,423	1,91€
BANKING & OTHER FINANCIAL INTERMEDIARIES	2.699	2.894		3,418	3,641	4,307	5,900	6,067	5,851	6,987
9 OWNERSHIP OF DWELLING	14,110			16,196	16,826		18,487	18,800	19,658	20,444
10 PUBLIC ADM. & DEFENCE	37,774	47,909					85,700	91,901	104,215	111,632
11 SERVICE	2,170	2,519				3,959	4,07€	4,147	3.843	4,224
12 TOTAL GDP	322,105					465,094	525,637	585,161	513,409	651,667
13 TOTAL OIL GAS & ITS PRODUCTS	1	0	0	0	C	0	0	0	0	C
14 TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	322.105	334,778	366,355	386,013	420,778	465,094	525,637	585,161	613,409	651,C67
THE TOTAL HITTOUT OIL, GAS & TIST TROPOGTS			* * * * * * * * * * * * * * * * * * * *							-

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIX, JAKARTA INDONESIA

GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN AT	1933 CONS	TANT MARK	ET PRICES(	MILLION BE	<u> </u>					
INDUSTRIAL DRIGIN	1984	1985	1986	1987	1983	1989	1990	1931	1992	1993 284,235
1 AGRICULTURE	151,656	144,611	163,046	171,140	179,025	197,806	231,887	275,757	271,113	
2 MINING & QUARRYING	27,926	27,375	19 172	10,735	23,330	24,145	24,633	27,389	28 645	28,405
3 MANUFACTURING INDUSTRIES	2.329	4,025	5 623	6,748	1,792	8,849	\$1,061	11,631	14,505	14,769
4 FLECT, GAS & WATER SUPPLY	923	1,268	1,515	1,673	1,924	2,081	2,428]	3,039	3,395	3,780
5 CONSTRUCTION	8,913	9,200	9,760	12,121	12,623	13,845	14,928	19,022	22,112	23,282
8 TRADE, RESTAURANT & HOTEL	36.364	42.263	47.324	52,358	54,477	59,185	67,565	77,039	79,091	89,880
7 TRANSPORT & COMMUNICATION	37,241	38,29€	44,919	48,156	50,219	57,878	58,965	50,309	60,981	64,029
8 BANKING & OTHER FINANCIAL INTERMEDIARIES	2,699	2,834	3,147	3,418	3.641	4,307	5,900[	6,067	5,851	6,987
OWNERSHIP OF DWELLING	14,110	14,418	15,300	16,196	16,82€	17,265	18,487	18,800	19,658	20,44\$
10 PUBLIC ADM, & DEFENCE	37,774	47,909	53,699	60,115	67,210	75,774	85,700	91,901	104,215	111,632
11 SERVICE	2,170	2.519	2.844	3,353		3.959	4.076	4,147	3,843	4,224
111 100.7444	322,105	334,778	366 355	386.013		465.094	525,637	585,161	613,409	651,667
12 TOTAL GDP 13 TOTAL DILIGAS & ITS PRODUCTS	ارْ، ا	0	G	0	0	o	0	o.	0	e
14 TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	322,105	334,778	366,365	386,013	420,778	465,094	525,637	585,161	613,400	651,667
13 TOTAL MITHOUT OIL, GAS & TIST HOLDONS	0.4,100			,,						

SOURCE: REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

GRO	WITH BATE OF GROSS DOMESTIC PRODUCT BY IND	USTRIAL OF	RIGIN AT 19	33 CONSTAL	NT MARKE (	PRICES		_			
<u> </u>	INDUSTRIAL ORIGIN	1384-1985	1995-1986	1986-1987	1987 1988	1988 1989	1989-1990	1990 1991	1931-1992	1992-1993	1988 1993
h-	AGRICULTURE	4.65%	12.75%	4.96%	4 61%	10.43%	17.23%	18 92%	-1.68%	4 84%	9 69%
Б	MiNING & DUARRYING	-1.97%	29.97%	44.01%	117.33%	3.43%	2.05%		4 53%		
ī	MANUFACTURING INDUSTRIES	72.82%	39.85%	19.88%	15.47%	1357%	25.00%	5.70%	24 07%		
lă -	ELECT GAS & WATER SUPPLY	37.38%	19.48%	10.43%	15.00%	8.16%	16 67%	25.16%	11.71%	11.34	
13	CONSTRUCTION	3 22%	6 09%	24.19%	4.14%	9 68%	7.82%	27.42%	16 24%		
15	TRADE, RESTAURANT & HOTEL	16.22% l	11 98%	10 64%	4 05%	8.64%	14 16%	14 02%	2.66%	13.64%	
,	TRANSPORT & COMMUNICATION	2 83%	17.29%	7.21%	4 28%	15.25%	1.83%	-14 68%	21.21%		
ľa	BANKING & OTHER FINANCIAL INTERMEDIARIES	7.22%	8.74%	8.61%	5 52%	18 29%	36 99%	2.83%		19.42%	
la l	OWNERSHIP OF DWELLING	2.18%	6.12%	5 86%	3 89%	2.61%	7.08%	1.69%			
10	PUBLIC ADM. & DEFENCE	26.83%	12.09%	11.95%	11.80%	12.74%	13.16°.	7.24%	13.40%		
ĭĭ	SERVICE	16 08%	12.90%	17.90%	10 €8%	6 68%	2 96%	1.74%	7.33%		
165	TOTAL GOP	3 93%	9.43%	5 37%	9.01%	10 53%	13 02%	11 32%	4.83%	6 24%	9.14%
13	TOTAL OIL, GAS & ITS PRODUCTS	1									
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	3 93%	9 43%	5 37%	9.01%	10 53° c	13 02%	11.32%	4 83%	6 24 %	9 14%

SOURCE:REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

	INDUSTRIAL ORIGIN	1984	1985	1986	1997	1983	1989	1990	1991	1932	1993
	AGRICULTURE	47.08%	43.20%	44 50%	44.34%	42 55%	42.53%	44.12%	47.12%	44 20° s	43 62%
,	MINING & QUARRYING	8 67%	8.15%	5 23%	2.78%	5 54%	5.19%	4 69%	4.68%	4 67%	
•	MANUFACTURING INDUSTRIES	0.72%	1.20%	1.54%	1.75%	1.85%	1.90%	2.10%	2 00%	2.36%	2 272
3 A	ELECT GAS & WATER SUPPLY	029%	0.38%	0.41%	0.43%	0.46%	0.45%	0.46%	0.52%	0 55*₁	0 53%
•	CONSTRUCTION	2.77%	2.75%	2 66%	3.14%	3.00%	2.98%	2 84%	3 25%	3 €0%	3 5 7 4
•	TRADE, RESTAURANT'S HOTEL	11.29%	12 62%	12 92%	13 56%	12.95%	12.73%	12 85%	13.17%	12 89%	
,	TRANSPORT & COMMUNICATION	1156%	11.44%	12 26%	12.48%	11.93%	12.44%	11 22%	8 60%	9 94 %	9 83°
3	BANKING & OTHER FINANCIAL INTERMEDIARIES	0.84%	0.86%	0.86%	0.83%	0.87%	0.93%	1.12%	1.04%	0.95%	1.079
3	OWNERSHIP OF OWELLING	4 38%	4 31%	4.18%	4.20%	4.00%	3 71%	3 52%	3 21%	3 20%	3.143
10	PUBLIC ADM. & DEFENCE	11.73%	14.31%	1466%	15 57%	15 97%	16 29%	16 30%	15 71%	16 99%	17,139
11	SERVICE	0.67%	0.75%	0.78%	0.87%	0.88%	0.85%	0.78%	0.71%	0 63°a	0.659
12	TOTAL GOP	100 00%	100.00%	100.00%	100 00%	100.00%	100 00%	100 00%	100.00%	100 00°s	100 00°
	TOTAL COP	0.00%	0.00%		0.00%	0.00%	0.00%	0 00%	0.00%	0.00%	0.009
13 14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	100.00%	100 00%	100 00%	100 00%	100 06%	100 00%	100 00%	100 00%	100.00%	100.003

SOURCE: REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRD PUSAT STATISTIK, JAKARITA INDONESIA

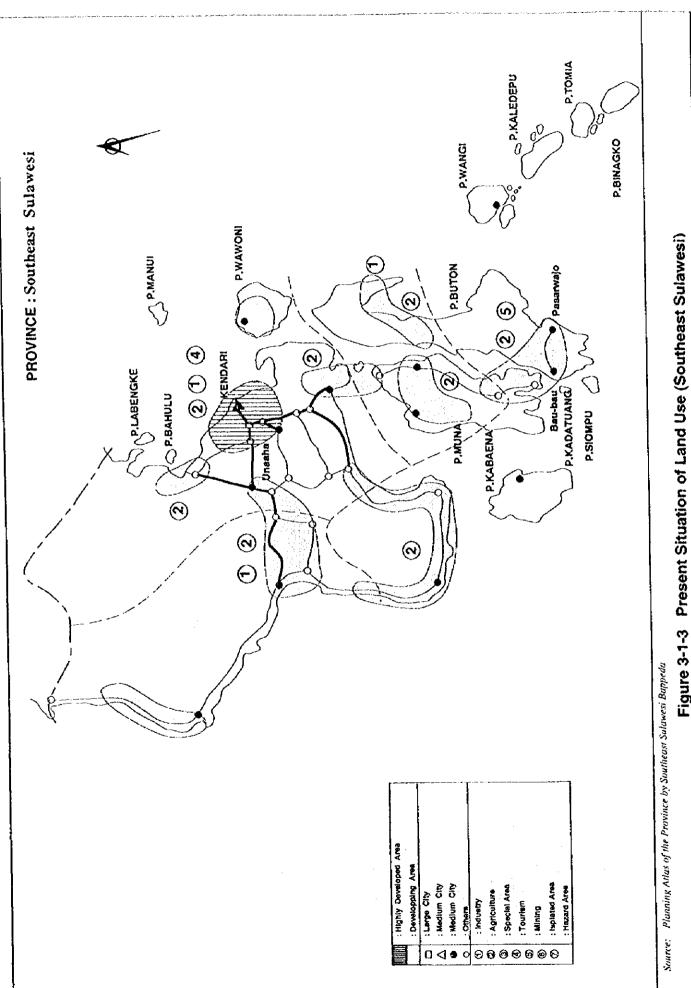


Figure 3-1-3

## (3) North Sulawesi

## 1) General

From 1988 to 1993, the GRDP of the province excluding oil/gas products increased at an annual growth rate of 8.6 percent per year on average, above the national average rate of 7.7% recorded during the same period. The economy is dominated by the agricultural sector which accounted for about 38% of the GRDP in 1993.

#### 2) Dominant Sector

# Agricultural Sector (38.43% of GRDP in 1993)

The agricultural sector in North Sulawesi province, similar to other provinces in Sulawesi is the greatest contributor of provincial GRDP. Table 3-1-8 shows that the contribution of the agricultural sector was 38.0% of the total GRDP in 1993. Land area for agriculture is located in Marisa, Paguyaman, Dumoga and Sangkup (for food crops in wetland) and Kabupaten Minahasa, Gorontalo and all other land area parallel to the Trans Sulawesi road (for food crops in dry land). The province's agriculture is characterized by its clove production, which accounted for some 30% of Indonesian clove production in 1990.

# 3) High-Growth Sector

The highest growth sectors during the last five years (1988-1993) were Mining & Quarrying (17.8% per year on average), followed by Manufacturing (11.9%), Electricity, Gas, and Water sector (11.0%), and Agriculture(10.4%). Reference is made to Table 3-1-8 and Table 3-1-9.

Table 3-1-8 GRDP by Industrial Origin, 1988 and 1993 at 1983 Constant Prices (Rp. Million)

Industrial Origin	1988	A.	1993	G.	Annual Growth
		Share		Share	Rate, %
1.Agriculture	292,095	35.40	479,827	38.43	10.44
2. Mining & Quarrying	6,385	0.77	14,515	1.16	17.85
3.Manufacturing	40,111	4.86	70,433	5.64	11.92
4. Electricity, gas, water	7,978	0.97	13,475	1.03	11.05
5.Construction	45,828	5.55	64,302	5.45	7.01
6. Trade, hotels, restaurant	110,256	13.36	175,869	14.09	9.79
7. Transport, communication	102,477	12.42	157,256	12.6	8.94
8. Banking, other financial	18,388	2.23	29,807	2.39	10.14
intermediaries					
9.Ownership of dwelling	23,088	2.80	28,858	2.31	4.56
10. Public administration	127,149	15.41	151,111	12.10	3.51
11.Services	51,270	6.21	62,967	5.04	4.20
Non oil/gas product	825,025	100.00	1,248,420	100.00	8.64
Oil gas product	0	0	0	0	0
GRDP	\$25,025	100.00	1,248,240_	100.00	8.64

Source: Central Bureau of Statistics, Regional Income of Provinces in Indonesia by Industrial Origin

Table 3-1-9 Gross Domestic Product by Industrial Origin at 1983 Constant Market Prices (Million Rp.) North Sulawesi

	INDUSTRIAL ORIGIN	1984	1985	1986	1987	1988	1989	1930	1991	1992	1903
{i	AGRICULTURE	224.218	234,223	249,430	270 533	292.095	307,569	354 017	338.920	442.067	479.827
111	FARM FOOD CROPS	112,388	117,783	127.585	128,933	140.462	155,131	166.764		188,856	201.685
1 2	FARMINONFOOD CROPS	55,700	60,054	62,409	74,556	83.217	76.055	100,004		146,026	157,639
1.3	ESTATE CROPS	6	0	0	11,000	۸		0	7,00,200	1,10,020	137.003
14	UVESTOCK	33.341	30.547	30,739	34 666	34.006	36.434	38.279	40.454	43,300	47,067
1.5	FORESTRY	1,194	1,816	4.057	6,936	6.936	10,112	14.510	17,346	22.392	28.067
16	FISHERY	24,589	24,023	24,649	25,410	26,814	29,837	34,460	37.214	41,493	45,369
5	MINING & QUARRYING	2.900	3,182	3,546	4 204	6.365	7.160	8,492	9,973	11.88€	14,515
l2 1	CHUDE PETROLEUM & NATURAL GAS	0,000	5,750	0,5.5		0,000		0,132	3,3,3,	11,000	14,010
2.2	NON CRUDE PETROLEUM & NATURAL GAS	282	272	1,134	1,731	اة ا	ارّ ا	Ä	, i	183	213
2.3	QUARRYING	2,624	2,910	2,412	2,473	6.385	7,166	8,492	9,993	11.703	14,302
3	MANUFACTURING INDUSTRIES	38.377	40.073	37.918	39,227	40,111	42,739	45,973	50.377	61,207	70.433
lā 1	LARGE & MEDIUM SCALE INDUSTRIES	16,109	18,017	15.823	16,634	16,930	18,800	20,404	24,010	32,212	
32	SMALL SCALE & HOME INDUSTRIES	22 263	22,05€	22,095	22,593	23,121	23,843	25,569	26,367	28,995	38,876
3 3	PETROLEUM REFINAERY	22,20°,	**,036	22,033	42,350 A	23,121	73,043	23,009	20,301	58,935	31,355
3 4	LNG	l ă		ŏ	ži	اة ا	, and	, i	, i	۱ ×۱	; <u>;</u>
4	FLECT GAS & WATER SUPPLY	5,633	6,122	6.839	7.221	7,978	8,662	9,148	10,507	12,172	13.475
1 1	ELECTRICITY	4.534	4.878	5.492	5,800	7.978	8,662	9,148	10,507	12,172	13,475
42	GAS	1,234	4,010	3,932	3,000	1,310	0,002	9,150	10,507	12,172	13,975
4 3	WATER SUPPLY	1.099	1,244	1.347	1,421	្រ	, a	ű	, o		i 🦞
5	CONSTRUCTION	41.652	49 331	44.495	44,57£	45,828	47,080	45.516	51,487	57.061	24 637
 6	TRADE, RESPAURANT & HOTEL	92,193	94,374	97 304	102,244	110.256	116,944	126,928	138,556		64,307
li 1	WHOLESALE & RETAIL TRADE	86,760	88,429	30.965	95,682	103,409	109,666			154,588	175,869
5 2	RESTAURANT	4,509	5,015	5.340	5,445	5,543	5,904	119,273	130,426	145,621	166,093
6.3	HOTELS	924	930	990	1,117	1,304	1,374	6.207	6,601	7,288	7,86€
ł÷÷	TRANSPORT & COMMUNICATION	81,221	83,422	87,116	93,308	102,477	108,343	1,448	1,529		1,910
2.1	RAILWAY TRANSPORT	01,221	63,422	67,110	93,300	102,477	108,343	116,053	125,569	141,839	157,25€
7.2	90AD TRANSPORT	66,387	67,733	67.747	€9,154	74.000	70.000	70.4.0	40.40		
1.3	INLAND WATER TRANSPORT	66,387	64,733	67,757	64,154	74,060	76,090	79,113	83,397	92,415	100,861
1.4	SEA TRANS PORT	7,573	8,489	11,428	15,889	19,433	22.891	20 000	21.500		
7.5	AIR TRANS PORT	3,533	3,514	4,129	4,250	4,471	4,612	26,923	31,536	37,547	43,569
7.6	SERVICE ALLIED TO TRANSPORT	3,333	3,313	4,123	4,250	9,47	1,915	4,840	5,137	5,926	6,449
7.7	COMMUNICATION	3.728	3.686	3.812	4,015	4,463	1 2-2	ان ۽	, o	0	G C
3	BANKING & OTHER FINANCIAL INTERMEDIANCES	12.646	10.666	11,199	13,809	18,388	4,750 26,840	5,177	5,499		6,377
5	OWNERSHIP OF DWELLING	20,454	20.883	21,244	22.148	23.088		33,413	39,276		29,807
10	PUBLIC ADM. & DEFENCE	113,232	115,496	121,447	125.645	127,149	24,067 130,964	25,093			28,858
ΗŤ	SERVICE	45,749	46,778	49,461	50,118	51,270		134,751	138,755	144,295	151,111
12	TOTAL GOP	681,281	704,550	730,000	1/3,031	825,025	52,911	54,827	56,269	59,509	62,967
13	TOTAL OIL GAS & US PRODUCTS	001,281	104,330 A	730,008	. 113,031	823,025	<b>873,28</b> 5	957,211	1,045,887	1,138,866	1,248,420
Hiš-	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	(81,28)	704,550	730.006	773.031	825,025	873,265	01301	0	0	<u> </u>
	. 5	(01,201)	104,550	30,000	173,031	073,925	643,260	957,211	1,045,887	1,138,868	1,248,420

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRD PUSAT STATISTIK, JAKARTA INDONESIA

GHC	SS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN AT	1983 CONST	ANT MARKE	I PRICES(L	RLUON RP.)						
	INDUSTRIAL ORIGIN	1984	1985	1986	1987	1988	1939	1990	1991	1992	1993
Įţ.	AGRICULTURE	224,218	234,223	249,439	270,533	292,095	307.569	354,017	398,920	442,067	479,827
12	MINING & QUARRYING	2,90€	3,182	3,546	4,264	6,385	7,156	8,492	9,993	11,886	14,515
13	MANUFACTURING INDUSTRIES	38,377	40,073	37,918	39,227	49,111	42,739	45,973	50,377	61,207	70,433
11	ELECT GAS & WATER SUPPLY	5,633	6,122	6,839	7,221	7,978	8,662]	9,148	10,507	12,172	13,475
15	CONSTRUCTION	44,652	49,331	44,495	44,576	45,829	47,080	48,516	51,487	57,061	64,302
5	TRADE, RESTAURANT & HOTEL	92,193	94,374	97,304	102,244	110,256	116,944	126,928	138,556	154,588	175,869
1.	TRANSPORT & COMMUNICATION	81,221	83,422	87,118	93,308	102,477	108,343	116,053	125,569	141,839	157,256
13	BANKING & OTHER EINANCIAL INTERMEDIARIES	12,646	10,866	11,199	13,809	18 388	26,840	33,413	39,276	26,924	29,807
P.,	OWNERSHIP OF DWELLING	20,454	20,883	21,244	22,148	23,086	24,067	25,093	26,178	27,320	28,858
10	PUBLIC ADM. & DEFENCE	\$13,232	115,496]	121,447	125,645	127,149	130,964	134,751	138,755	144,295	151,111
113	SERVICE	45,743	46,77B]	49,461	50,116	51,270	52,911	54,827	56,269	59,509	€2,967
1,5	TOTAL GOP	€81,281	704,550	730,008	773,031	825,025	873,285	957,211	1,045,887	1,138,868	1,249,420
13	TOTAL OIL GAS & ITS PRODUCTS	G	0]	0	0	0	c	0	0	6	Ç.
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	€81,291	704,550	730,008	773,031	825,025	873,285	957,211	1,045,887	1,138,868	1,243,420

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRD PUSAT STATISTIK, JAKARTA INDONESIA

GBC	WITH RATE OF GROSS DOMESTIC PRODUCT BY IND	USTRIAL OF	RIGIN AT 199	3 CONSTAN	I MARKET F	RICES					
	INDUSTRIAL OR:GIN	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1389 1390	1990-1991	1391 1992	1992-1993	1938-1993
i'	AGRICULTURE	4.45%	6.50%	8.46	7.97%	5.0%	15.10%		10 82%	8 54%	
2	MINING & QUARRYING	9 50%	11.44%	18 56%	51.88%	12 23%	18 50%	17.68%	18 94%	22.12%	
B	MANUFACTURING INDUSTRIES	4 42°	-5 38°-	3.45%	2.25%	6 55%	7.57%	9 58%	21.50%	15.07%	11.924
13	ELECT.,GAS & WATER SUPPLY	8.68%	1171%	5 59%	10.49%	8.57%	5.61%	14.86%	15.85%	10 70%	
Ď.	CONSTRUCTION	10.43%	-9 80%	0.13%	2.81%	2.73%	3.06%	6.12%			7.01%
څ	TRACE, RESTAURANT & HOTEL	2.37%	3.10%	5 08%	7.84%	6.07%	8.54%	9.16%		13.77%	9.79
17	TRANSPORT & COMMUNICATION	2.71%	4.43%	7.11%	9.83%	5.72%	7.12%	8 20%		10.87%	8 94%
13	BANKING & OTHER FINANCIAL INTERMEDIARIES	15 €6 €	5.00%	23 31%	33.16%	45.96%	24.49%	17.55%	31.45%	1071%	10.14%
[3	OWNERSHIP OF DWELLING	2.10%	1.73%	4.26%	4.24%	4 24%	4.26%	4 32%	4 36°a	5 63%	4.56%
[10	PUBLIC AUM, & DEFENCE	2 (%)%	5.15%	3.46%	1 20%	3.00%	2.89%	2.97%	3.99%	4.72%	3.51%
[11	SERVICE	2.25%	5.74%	1 32%	2.30%	3 20%	3.62%	2 63%	5.76%	5.81%	4 20%
12	ECITAL GDP	3.42%	3.51%	5.83%	6.73%	5 85%		9 26%	8.89%	962%	8.64
13	TOTAL OIL RAS & ITS PRODUCTS							,	Q.00 A	300.0	0.04 %
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	3.42%	3,61%	5 69%	6.73%	5 85%	9 61%	9 26%	8 89%	9.62%	B 64%

SOURCE FLEGIONAL INCOME OF PROVINCIES IN INDOMESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDOMESIA

	INDUSTRIAL ORIGIN	1984	1985	1986	1987	1988	1989	1999	1991	1992	1993
	AGRICULTURE	32.91%	33.24%	34.17%	35.00%	35.40%	35 22%	36 98%	38 14%	38 82%	38 43%
•	MINING & QUARRYING	0.43%	0.45%	0.49%	0.54%	0.77%	0.82%	0.83%	0.96%	1.04%	1.16%
•	MANUFACTURING INDUSTRIES	5.63%	5.69%	5.19%	5.07%	4.86%	4 89%	4.60%	4.82%	5 37%	5.64
	ELECT, GAS & WATER SUPPLY	0.83%	0.87%	0.94%	0.93%	0.97%	0 99%	0.96%	1 00%	1 07%	1.08°
	CONSTRUCTION	6.55%	7.00%	6.10%	5.77%	5 55%	5 39%	5.07%	4.92%	5.01%	5.15%
	TRADE, RESTAURANT & HOTEL	13 53%	13 39%	13 33%	13 23%	13 36%	13 39%	13 26%	13 25%	13.57%	14 09%
	TRANSPORT & COMMUNICATION	11.92*	11.84%	11 93%	12.07%	12.429	12.41%	12.12%	12 61%	12.45%	12 60%
	BANKING & OTHER FINANCIAL INTERMEDIARIES	1.86%	1.51%	1 53%	1.79%	2 23%	3 07%	3.49%	3 76%	2 36%	2 39%
	OVYNERSHIP OF DWELLING	3.00%	2 96%	2.91%	2.87%	2.80%	2.76%	2 62%	2 50 %	2.40%	2 31%
0	PUBLIC ADM & DEFENCE	16 62%	16 39%	16 64%	16 25%	15 41%	15 00 %	14 08%	13 27%	12 67%	12.10
1	SERVICE.	6 72%	6 64%	6.78%	6.48%	6 2 1 3	6.06%	5.73%	5 38%	5 23%	5 04°
2	TOTAL GOP	100 00%	100 00°	100 00%	100 00%	100 00%	100 00%	100 00%	100.00%	100 00%	100 00%
3	TOTAL OIL, GAS & ITS PRODUCTS	0.00%	0.00%	0.00%	0.00%	0 00%	0.00%	0.00%	0 00%	0.00%	0.00%
4	TOTAL WITHOUT OIL, GAS & HIS PRODUCTS	100 00%	100 00%	100.00%	100 00%	100 00%	100.00%	100 00%	100.00%	100.00%	100 00%

SOURCE REGIONAL INCOME OF PROVINCIES IN INDOMESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

### (4) South Sulawesi

#### 1) General

The GRDP of the province excluding oil/gas products increased at an annual growth rate of 7.6 percent on average from 1988 to 1993, slightly below the national average rate recorded during the same period. The economy is dominated by primary industry (agriculture and fishery), which accounted for about 40% of the GRDP in 1993.

#### 2) Dominant Sector

# Agricultural Sector (40.86% of GRDP in 1993)

Agricultural sector makes the greatest contribution to the South Sulawesi GRDP, although its share decreased from 42% in 1988 to 40% in 1993. The potential of the agricultural sector in South Sulawesi is dominated by forestry with a land area in 1990 of 3,573,951 Ha (51.19%), while land area for paddy fields is 563,576 Ha (9.02%) and for plantation is 443,414 Ha (7.09%). The locations are scattered throughout every Kabupaten in South Sulawesi province.

### 3) High-Growth Sector

The highest growth sectors during the last five years (1988-1993) were Manufacturing (12.8% per year on average), followed by Trade, Hotels & Restaurant (8.8%), Electricity, Gas, and Water (8.3%), Construction (8.1%), Transport & Communication sector (7.6%), and Services (7.4%). Reference is made to Table 3-1-10 and Table 3-1-11.

Table 3-1-10 GRDP by Industrial Origin, 1988, and 1993 at 1983 Constant Prices (Rp.Million)

Industrial Origin	1988	%	1993	$q_c$	Annual Growth
		Share	l	Share	Rate, %
I.Agriculture	1,037,848	42.36	1,446,439	40.86	6.86
2.Mining & Quarrying	62,568	2.55	79,205	2.24	4.83
3.Manufacturing	178,598	7.29	325,428	9.19	12.75
4.Electricity.gas,water	27,638	1.13	41,269	1.17	8.35
5.Construction	91,400	3.73	134,921	3.81	8.10
6. Trade, hotels, restaurant	421,060	17.19	643.139	18.17	8.84
7.Transport,communication	223,048	9.10	321,924	9.09	7.62
8.Banking, other inancial intermediaries	39,895	1.63	50,001	1.41	4.62
9.Ownership of dwelling	107,282	4.38	125,189	3.54	3.14
10.Public administration	236,235	9.64	338,785	9.57	7.48
11 Services	24,408	1.00	33,596	0.95	6.60
Non oil/gas product	2,449,971	100.00	3,539,806	100.00	7.64
Oil gas product	0	0	0	0	0
GRDP	2,449,971	00.001	3,539.806	100.00	7.64

Source: Central Bureau of Statistics, Regional Income of Provinces in Indonesia by Industrial Origin

The GRDP by Kapubaten is shown in Table 3-1-12 for each province in the study area.

Table 3-1-11 Gross Domestic Product by Industrial Origin at 1983 Constant Market Prices (Million Rp.) South Sulawesi

		1935	1986	1987	1988	1989	1930	1931	1932	1993
INDUSTRIAL ORIGIN	1984 819,728	874 818	944.371	919.007	1 037.848	1,110,431	1.178.872	1,282,530	1,356,180	1,446,349
1 AGRICULTURE	431,822	528.433	583.609	534,281	607.028	658,468	694,183	727.778	767,019	785,288
14 FARM FOOD CROPS	C6.156	72.41?	77,174	85.564	115,728	122,518	142,046	167,838	181,200	210,874
2 FARM NONEOOD CROPS	2.812	2,431	2,914	2.981	2,986	3.283	3,514	4,530	4,776	5,075
13 ESTATE CROPS	92,182	99,100	99,563	102.777	103,463	110,209	114,939	120 126	126,173	138,198
14 LIVESTOCK	4.911	4.631	4 926	5,221	6,162	5.931	6,467	7,091	7,486	8,068
I-S FORESTRY	161,845	167,745	176,185	188,183	197,461	210.022	217,723	255,167	269,527	298,846
1 6 FISHERY	15,090	16,145	17,353	17,907	62,568	61,184	60,372	75,383	78,580	79,205
2 MINING & CUARRYING	15,090	19,145	1,,000	0	ol	C.	0	아	O.	C-
2.1 CRUDE PETROLEUM & NATURAL GAS	11,907	12.883	13,937	14,217	58,603	56,898	55,456	69,900	72,414	72,153
2.2 NON CRUDE PETROLEUM & NATURAL GAS	3.183	3.256	3,416	3.690	3.965	4,286	4,916	5,483	6,166	7,052
2.3 QUARRYING	73,941	95,147	104,826	133.600	178.598	196.241	227,640	249,948	299,845	325,428
3 MANUFACTURING INDUSTRIES	49,978	60.238	64.433	84,695	113,082	122,785	142,312	161,697	204,577	225,804
3.1 LARGE & MEDIUM SCALE INDUSTRIES	28,963	34,909	40,393	43,913	65,516	73,456	85,328	88,251	95,268	99,624
3.2 SMALL SCALE & HOME INDUSTRIES	28,963	34,505	40,350	10.376	05,010	ol	o o	ં બ	Đ.	
3-3 PETROLEUM REFINAERY	S,	XI	šl	ň	ŏl	. di	0	이	. 0	
14 LNG	17,455	19,436	20.754	24.897	27,638	31,134	33,775	36,190	38,216	41,269
4 ELECT GAS & WATER SUPPLY	16,044	17,994	19,322	23,319	25.998	28.663	31,215	33,279	34,891	37,789
A F EFECTBICITA	64	61	48	53	56	62	74	75	81	85
12 GAS	1 347	1.381	1,384	1,525	1,584	2,209	2,486	2,826]	3,244	3,390
4.3 WATER SUPPLY	62.047	67,900	73,004	81.232	91,400	99.488	107,002	114,963	124,571	131,92
5 CONSTRUCTION	329,346	356.899	375,174	394.089	421,000	443.991	468,251	545,943	595,261	643,13
TRADE, RESTAURANT & HOTEL	316,254	343,152	360,393	378.189		424,951	446.813	522,645	570,090	616,10
6-1 WHOLESALE & RETAIL TRADE	10,608	11,171	12,115	13,133			18,009	3,526	20,662	21,92
6.2 RESTAURANT	2,434	2.576	2,666	2.767	2,836	16,026	3,369	19,772	4,509	5,11.
63 HOTELS		179,057	199,413	209.094	223,039		255,327	272,206	231,737	321,92
7 TRANSPORT & COMMUNICATION	173,437	1/8,05/	1-35,4131	200,007	0	o o	0	0	0	
7-1 BAILWAY TRANSPORT	64,686	67,180	70,680	75,256	82,422	88,958	94,662	102,269	111,172	121,30
7-2 ROAD TRANSPORT	64,686	87,500	10,000	, ,,,,,,	0	O	0	. 0	- 0	
7-3 INLAND WATER TRANSPORT	33,089	36,328	40.065	40,261	41,370	43,571	46,717	49,374	52,954	
7.4 SEA TRANS PORT	18,61€	16,430	17,595	19,712			26,521	27,818		
7-5 AR TRANSPORT	4,655	4,835	5.115	5.292				7,t48		
7-6 SERVICE ALLIED TO TRANSPORT	52,331	54,284	55,958	68,573			80,724	85,597		
7-7 COMMUNICATION	29,764	32,321	33,055	36,105			49,359	41,943		
3 BANKING & OTHER FINANCIAL INTERMEDIARIES	97.666	100.504	102,655	103,824				118,088	121,354	125,18
3 OWNERSHIP OF OWELLING	188,489	208,247	214,383	222,863				283,220	305,92€	
10 PUBLIC ADM: 8 DEFENCE	17,581	18,532	19,46\$	21,200				29,463		
II SERVICE	1,829,544		2,094,453	2,1€6,826					3,286,073	3,533,80
15 TOTAL GOD	1,029,549	1,303,000	<del>2,039,430</del>	1-1,100,01	1 (	t c	0	0		T
13 TOTAL OIL GAS & ITS PRODUCTS	1,829,544	1,969,006	2,094,453	2,166,826	2,449,971	2,608,605	2,784,605	3,043,867	3,286,073	3,539,80
11 TOTAL WITHOUT OIL GAS & ITS PRODUCTS	1,029,344	,369,000	2,034,133	2,.00,000	1 ,,,,,,,,,	1 -1212120				

SOURCE: REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

666	SS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN AT	1983 CONST	ANT MARKET	FPRICES:M	LLIÓN RP.)						4000
Cinc	INOUSTRIAL OFBGIN	1984	1985	1986	1987	1988	1939	1990	1931	1992	1993
};	AGRICULTURE	813.728	B74.818	944,371	919,007	1,037,843	1,110,431	1,178,872	1,282,530	1,356,180	
1.	MINING & QUARRYING	15,090	16.145	17.353	17,907	62,568	61,184	60,372	75,383	78,580	79,205
15	MANUFACTURING INDUSTRIES	78,941	95,147	104 826	133,608	178,598	136,241	227,640	249,948	299,845	325,428
13	ELECT_GAS & WATER SUPPLY	17,455	19,436	20.754	24,897	27.638	31,134	33,775	36,180	38,216	41,269
13		62.047	67,900	73.004	84,232	91,400	99,488	107,002	114,963	124.571	134,921
5	CONSTRUCTION TRADE, RESTAURANT & HOTEL	329.346	356,839	375 174	324,089	121,060	443,991	468,251	545,943	595,261	643,139
5		173,437	179,057	189,4131	209.094	223.039	237,048	255,327	272,200	231,737	321,924
1/	TRANSPORT & COMMUNICATION	29.764	32,321	33.055	36,105	39.895	44.8/3	49,359	41,943	42,670	59,001
13	RANKING & OTHER FINANCIAL INTERMEDIARIES	97.666	100.504	102.655	103.824	107 282		114,893	118,088	121.354	125,189
₽.	OWNERSHIP OF DWELLING	138,439	208,247	214.383	222,863	235,235		261,509	283,220	305,926	338,785
10	PUBLIC ADM. & DEFENCE	17,581	18,532	19,465	21,200	24,408		27,605	29,463	31,733	33,596]
111	SERVICE		1,969,006	2 094 453			2,608,665	2.784.605	3,049,867	3 286 073	3,539,600
15	101AL GDP	1,829,544	1,959,000	7.034,433	6,500,000	2,4,5,5	0	O.	0	ol	0
13	TOTAL OIL,GAS & ITS PRODUCTS		1,969,006	2 004 463	2,166,826	2,449,971	2,608,665	2,784,605	3,049,667	3,286,073	3,539,80€
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	1,829,544	1,509,000	2,034,4308	2,100,020		2,30,000				

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARYA INDONESIA

cne	WITH RATE OF GROSS DOMESTIC PRODUCT BY IND	USTRIAL OR	IGIN ÁT 1980	CONSTANT	MARKET PE	NCES					
SHU	INDUSTRIAL ORIGIN	1984 1985	1985-1986	1966 1987	1987-1988	1308-1303		1990-1991		1992-1993	1988-1993
1	AGRICULTURE	6.72%		-2 69%	12.93%	6 99%				6 65%	
1.	MINING & QUARRYING	6.93%		3.19%	249.41%	-2.21%				0.80%	4.83%
ĺ,	MANUFACTURING INDUSTRIES	20 53%		27.46%	33 67%	9.88%	16.00%			8 53%	12.75%
T:	ELECTGAS & WATER SUPPLY	11.35%	6.78%	19 96%	1101%	12.65%	8.48%			7.93%	8 35%
13	CONSTRUCTION	9.43%		15.38%	8 51%	8.85%	7.55%	7.44%		8 31%	
1?	TRADE, RESTAURANT & HOTEL	8 37%		5.04%	6.84%	5.45%	5.46%	15 59%		8 04%	
9	TRANSPORT & COMMUNICATION	3 24%		10.39%	6 67%	6 28%	7.71%	661%		10.35%	
Ľ	BANKING & OTHER FINANCIAL INTERMEDIARIES	8 5 9%		9.23%		12.48%	10:00%	-15.02%		17.16%	
13	OWNERSHIP OF DWELLING	2.91%				3 83%	3.14%	2.78%	2.77%		
,		10.48%				4 68%	5.75%	8.30%	8.02%	10.74%	
10	PUBLIC ADM. & DEFENCE	5.41%					7.87%	6.73%	7.70%		
111	SERVICE	7.62%					6.74%	9 53%	7.74%	7.72%	7.84%
12	TOTAL GDP	1.02 "	0.5776	0.40 1.							
13	TOTAL OR, GAS & ITS PRODUCTS	7.62%		3.46%	13.07%	6.48%	6.74%	9.53%	7.74%	7.72%	7.64%
14	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	1,627	4 031.5	3.30 0		1					

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL ORIGIN, BIRO PUSAT STATISTIK, JAKARTA INDONESIA

UGNI	STRIAL STRUCTURE							1200	1991	1992	1993
	INDUSTRIAL ORIGIN	1384	1985	1986	1987	1988	1989	1990			40.86%
1:	AGRICULTURE	44 81%	44.43%	45 09%	42.41%	42.36%	42.57%	42.34%	42.05%	41.27%	
1.	MENING & QUARRYING	0.82%	0.82%	0.83%	0.83%	2 55%	2 35%	2.17%	2.41%	2.39%	2.24%
12		4.31%	4.63%	5.00%	6.17%	7.23%	7.52%	8.17%	8.20%	9.12%	9 19%
3	MANUFACTURING INDUSTRIES			0 99%	1.15%	1.13%	1.13%	1.21%	1.194	1.16%	1.17%
4	ELECT.,GAS & WATER SUPPLY	0.96%	0 99%				3 81%	3.84%	3.77%	3.79%	3.61%
5	CONSTRUCTION	3.39%	3.45%	3.43%	3.89%	3.73%			17.90	18.11%	18.17%
	TRADE, RESTAUPANT & HOTEL	18.00%	18 13%	17,91%	18.19%	17,19%	17.02%	16 82%			
T,	TRANSPORT & COMMUNICATION	9.49%	9 09%	9 04%	9 65%	9.10%	9 09%]	9.17%	8.93%	8 88%	9 09%
11		1 63%	1.64%	1.58%	1.67%	1.63%	1.72%	. 1.77%	1.38%	1.30%	1.41%
3	BANKING & OTHER FINANCIAL INTERMEDIARIES			4.90%	4.79%	4 38%	4.27%	4.13%	3.87%	3 69%	3 54%
()	OWNERSHIP OF DWELLING	5.34%	5.10%			9 64%	9.48%	9.33%	9 29%	9 31%	9 57%
10	PUBLIC ADM. & DEFENCE	10.30%	13.58%	10 24%	10 29%				0 97%	0.97%	0.95%
11	SERVICE	0.96%	0.94%	0.93%	0 98%	1.00%	0 38%	0.93%			100 00%
133	IOIAL GOP	100 00%	100 00%	100 00%	100 00%	100 00%	100 00%	100.00%	100.00%	100.00%	
1.2		0 00%	0.00%	0.00%	0.00%]	0.60%	0.00%	0.00%	0.00%	0 00%	0 00%
13	TOTAL OIL, GAS & ITS PRODUCTS		100 000	100 00%	100 00%		100 00%	100 00%	100 00%	100 00%	100 00%
114	TOTAL WITHOUT OIL, GAS & ITS PRODUCTS	100 00%	100 00 01	\$00.00.0	0000	.00 00 10					

SOURCE REGIONAL INCOME OF PROVINCIES IN INDONESIA BY INDUSTRIAL CRIGIN, BIRD PUSAT STATISTIK, JAKARTA INDONESIA

Table 3-1-12 GRDP by Kapubaten in Study Area

And the second s			1983 Pa	lces	1	1993 Pc	ices
Province	Kabupaten	1989	1990	1991	1992	1993	1994
Central Sulawesi	Kab. Luwuk/Banggai	n/a	n/a	n/a	n/a	297,958	303,046
Committee	Kab. Poso	83,443	90,867	97,389	105,381	283,386	286,352
	Kab. Donggala	n/a	n/a	n/a	n/a	621,336	626,900
	Kab, Buol Toli-Toli	n/a	r/a	n/a	n/a	215,414	219,499
	Kod. Palu	n/a	n/a	n/a	n/a	337,334	338,849
	Central Sulawesi	529,449	575,969	626,073	678,682	1,755,457	1,885,124
Southeast Sulawesi	Kab, Buton	103,897	121,253	135,585	138,873	323,795	337,613
Frontif Bit to Brain Co.	Kab Muna	75,172	84,010	92,890	86,118	186,052	191,746
	Kab. Kendari	173,019	199,943	207,482	218,001	467,090	508,045
	Kod. Kendari	† <u>-</u>			-		-
	Kab, Kotaka	113,195	120,329	151,478	168,386	312,241	336,436
	Southeast Sulawesi	465,094	525,636	587,435	611,378	1,289,181	1,373,870
North Sulawesi	Kab, Bolang Mangondow	121,912	130,406	142,295	154,945	381,891	410,628
Motth Surawesi	Kab. Gorontalo	124,051	147,504	160,952	175,260	431,962	464,467
	Kod. Gorontalo	49,037	52,698	57,502	62,614	154,325	165,938
	Kod, Manado	178,995	193,834	211,506	230,309	567,638	610,353
	Kab. Minahasa	276,915	299,653	326,972	356,040	877,527	943,561
William .	Kab. Sangihe Talaut	69,977	76,778	83,778	91,226	224,843	241,762
	Kod. Bitung	52,380	57,628	62,882	68,472	168,762	181,462
	North Sulawesi	873,267	958,501	1,045,887	1,138,866	2,806,948	3,018,172
C. at Calanasi	Kab, Selayar	n/a	39,288	42,460	45,122	109,210	116,550
South Sulawesi	Kab, Bulukumba	n/a	133,993	144,619	153,483	370,985	395,39
	Kab. Bantaeng	n/a	57,664	62,477	66,562	161,509	172,800
	Kab. Jeneponto	n/a	115,603	125,853	134,724	328,467	353,11.
	Kab. Takafar	n/a	82,211	89,068	94,887	230,225	246,30
	Kab. Gowa	128,413	171,195	185,728	198,132	481,386	515,71
	Kab. Sinjai	70,558	77,202	83,492	88,786	215,036	229,64
	Kab, Bone	222,176	243,444	261,745	276,721	666,311	707,43
	Kab. Maros	92,327	95,629	103,618	110,400	267,895	286.64
	Kab. Pang. Kepulauan	n/a	98,060	106,201	113,097	274,309	293,36
	Kob. Barru	n/a	58,501	63,250	67,242	162,810	173,82
	Kab. Soppeng	n/a	89,770	97,118	103,312	250,301	267,40
	Kab. Wajo	n/a	142,613	157,149	170,275	420,198	457,22
	Kab. Sid. Rappang	n/a	92,658		106,236		273,93
	Kab. Pinrang	n/a	118,465	128,012	136,082	329,392	351.56
	Kab, Enrekang	n/a	58,671	63,672	67,915	165,130	176,96
	Kab. Luwu	n/a	272,734		324,849	800,679	870.18
	Kab. Tana Toraja	n/a	144,682	156,138		400,443	426.74
	Kab. Pole. Mamasa	n/a	159,728		····		486,17
	Kab. Majene	n/a	44,392	·			150,44
	Kab, Manioju	49,186	70,924				277,73
	Kod, Ujung Pandang	n/a	376,719				1,387,87
	Kod. Pare-Pare	49,110			<del></del> -		120,03
<u> </u>	South Sulawesi	2,608,665		<del></del>	<b></b>	<del> </del>	8,737,06
	able Provincial GRDP in North						

Notes: n/a = not available. Provincial GRDP in North Sulawesi from 1991 to 1994 is distributed by kabupaten according to 1990 shares. Provincial GRDP in South Sulawesi from 1990 to 1994 is distributed by kabupaten on a per capita basis according to 1990 and 1995 population figures.

Source: Dalam Angka by Pravincial Bappeda, Central Sulawesi, Southeast Sulawesi, North Sulawesi, South Sulawesi

### 3.2 Future Socio-Economic Framework

### 3.2.1 Development Plans

The Second 25 Year Development Plan starting from the fiscal year 1993/1994 stresses the development of eastern Indonesia, including Sulawesi.

BAPPENAS (National Development Planning Agency) estimated provincial imports, exports, and domestic loading and unloading for PJP-II, which is the second 25 year development plan covering 1993 - 2018. BAPPENAS's study linked Input-Output model estimates of provincial growth rates and outputs by economic sector with its National Spatial Strategy in order to analyze port facilities and transport infrastructure.

The study had two main growth alternatives. The first is a continuation of current trends with economic growth centered on Java, and the second addresses the issues of regional equity with a goal of a more equitable distribution of growth outside of Java. This second alternative is the official policy scenario for PJP-II.

Following the study of the growth rate of development in Indonesia and eastern Indonesia regions, the growth rate of Central and Southeast Sulawesi are programmed as shown in Table 3-2-1 (Base Case).

Table 3-2-1 Planned Growth Rate of GRDP (Base Case)

GRDP Growth (% p.a.)

	5 Y	ear Developi	<del></del>	riod	
	VII 1999-2003	VIII 2004-2008	IX 2009-2013	X 2014-2018	
Indonesia	6.60%	7.10%	7.80%	8.70%	
Eastern Indonesia	7.43%	7.99%	8.84%	9.94%	
Central Sulawesi	7.31%	7.68%	7.92%	8.87%	
Southeast Sulawesi	7.71%	8.06%	8.44%	9.50%	

Source: Base Data and Information by Bappenas and Modified by HCA Study Team

For comparative purposes, the resulting growth rates from the above study were used to project the GRDP for lower and higher cases. Individual rate was developed for both Central and Southeast Sulawesi, while a single rate was used for the other two provinces. The lower case indicates that the continuation of past trends with economic

<sup>&</sup>lt;sup>1</sup>BAPPENAS, "The Link Between PJP and Projections and SNPPTR," March 1995 as quoted in Ministry of Communication's "Port Development Strategy Study for the Southern Sumatra and Western Java Region, August 1995."

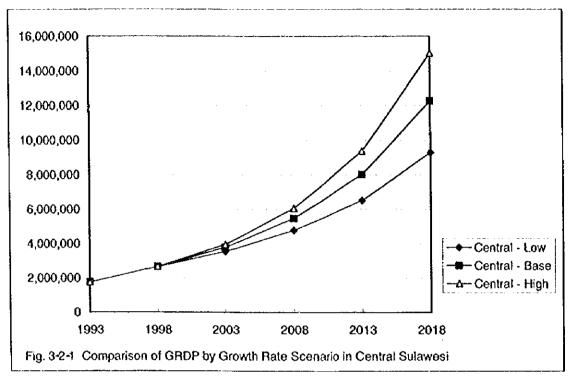
growth centered on Java translates into lower growth, while the higher case shows that more equitable distribution of growth than that of Base Case outside of Java results in a higher growth.

Table 3-2-2 Provincial GRDP Growth Rates: Lower, Base, Higher

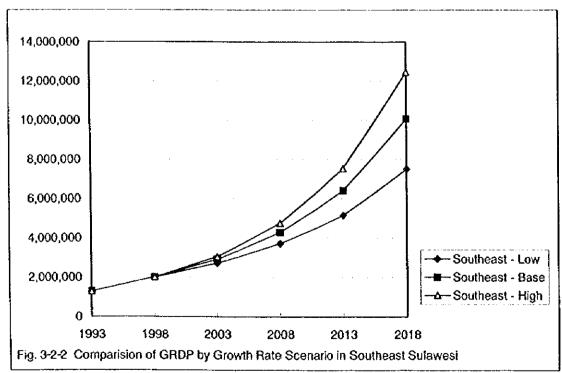
Province/Period	VII	VIII	ΙX	X
Lower Growth				
Central Sulawesi	5.89 %	6.17 %	6.39 %	7.36 %
Southeast Sulawesi	6.22 %	6.49 %	6.80 %	7.87 %
North Sulawesi	5.99 %	6.43 %	7.12 %	8.24 %
South Sulawesi	5.99 %	6.43 %	7.12 %	8.24 %
Base Case				
Central Sulawesi	7.31 %	7.68 %	7.92 %	8.87 %
Southeast Sulawesi	7.71 %	8.06 %	8.44 %	9.50 %
North Sulawesi	7.43 %	7.99 %	8.84 %	9.94 %
South Sulawesi	7.43 %	7.99 %	8.84 %	9.94 %
Higher Case				
Central Sulawesi	8.25 %	8.87 %	9.12 %	9.90 %
Southeast Sulawesi	8.71 %	9.32 %	9.72 %	10.59 %
North Sulawesi	8.39 %	9.24 %	10.18 %	11.09 %
South Sulawesi	8.39 %	9.24 %	10.18 %	11.09 %

Source: Bappenas and Estimation by JICA Study Team

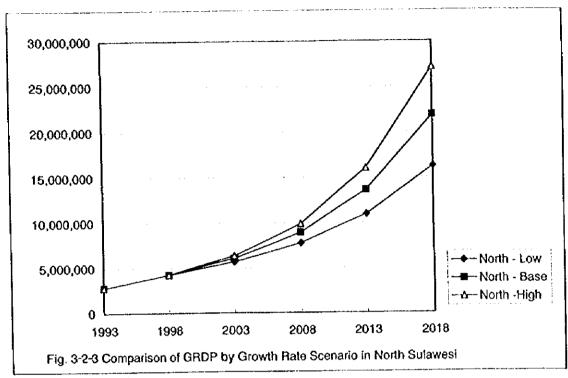
Graphical presentations of the GRDP levels in each province based on the above growth rates are presented in the following Figures 3-2-1 to 3-2-4.



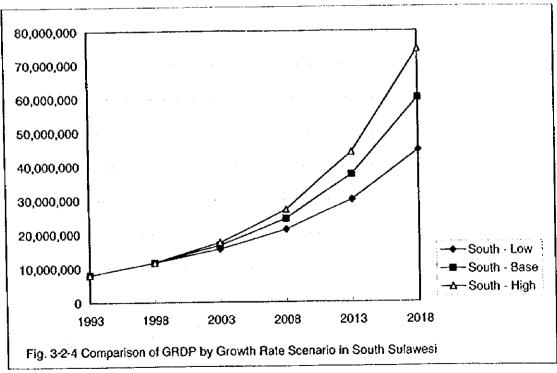
Source : IICA Study Team



Source : IICA Study Team



Source : IICA Study Team



Source : JICA Study Team

# 3.2.2 Development Strategy

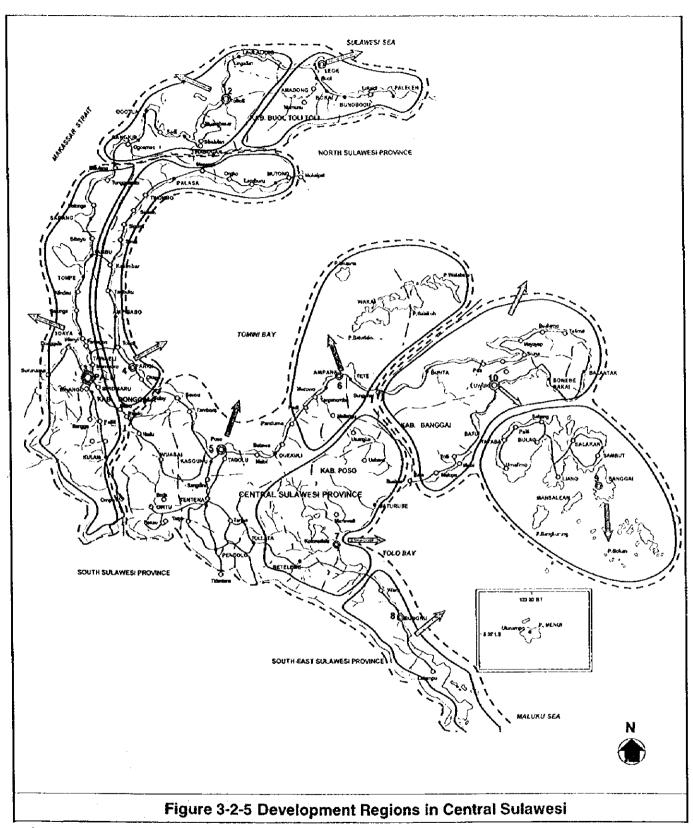
In the study area, the strategy for development is shown in the hierarchy of cities, development region (WP) classification, and development corridors as shown in the following Figures 3-2-5 to 3-2-10.

In both provinces, major industries and grade of development would be summarized in Table 3-2-3.

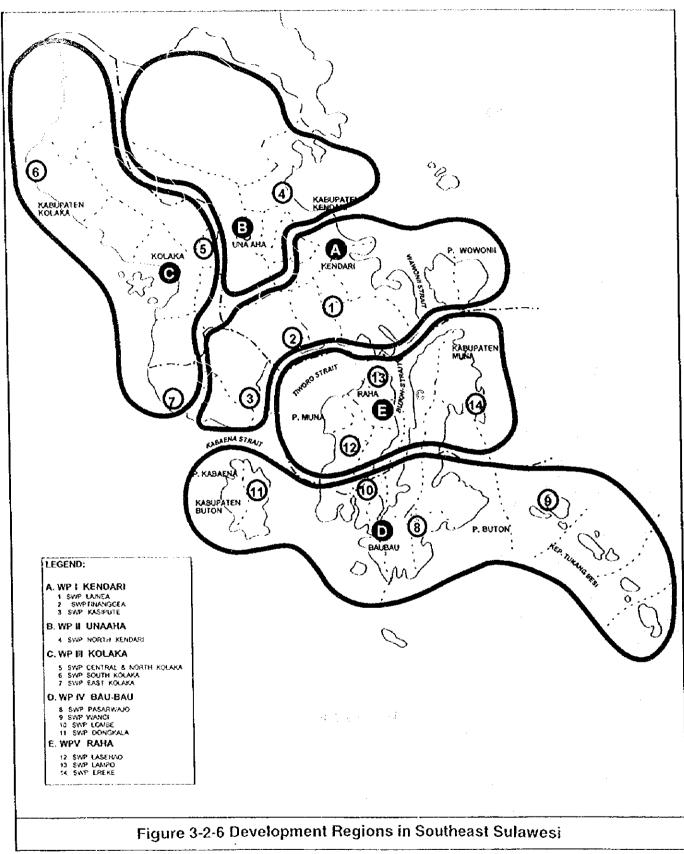
Table 3-2-3 Major Industries for Development

CENTRAL SULAWESI						
Development Region	Donggala	Industry, Agriculture, Mining				
Developing Regions	- Poso - Luwuk/Banggai - Buol/Toli-Toli	Agriculture, Industry Agriculture Agriculture				
so	UTHEAST SULAW	ESI				
Development Region	Kendari	Industry, Tourism				
Developing Region	- Kolaka - Buton - Muna	Industry, Agriculture Agriculture Agriculture				
Gates for Tourism Destination	Kendari, Kolaka, Baubau, Raha					

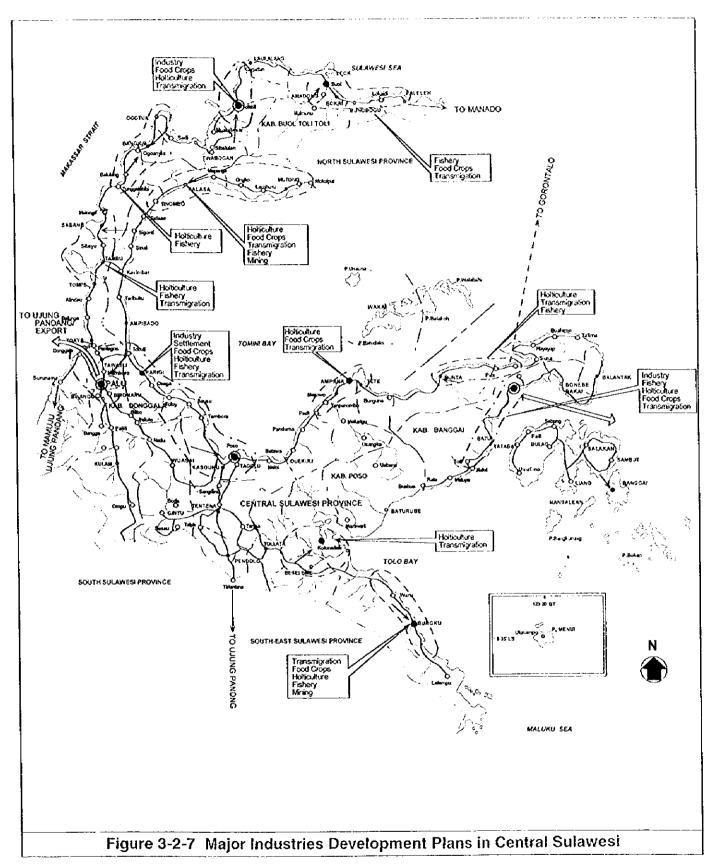
Source: Provincial Structure Plan by Provincial Bappeda, Central Sulawesi and Southeast Sulawesi



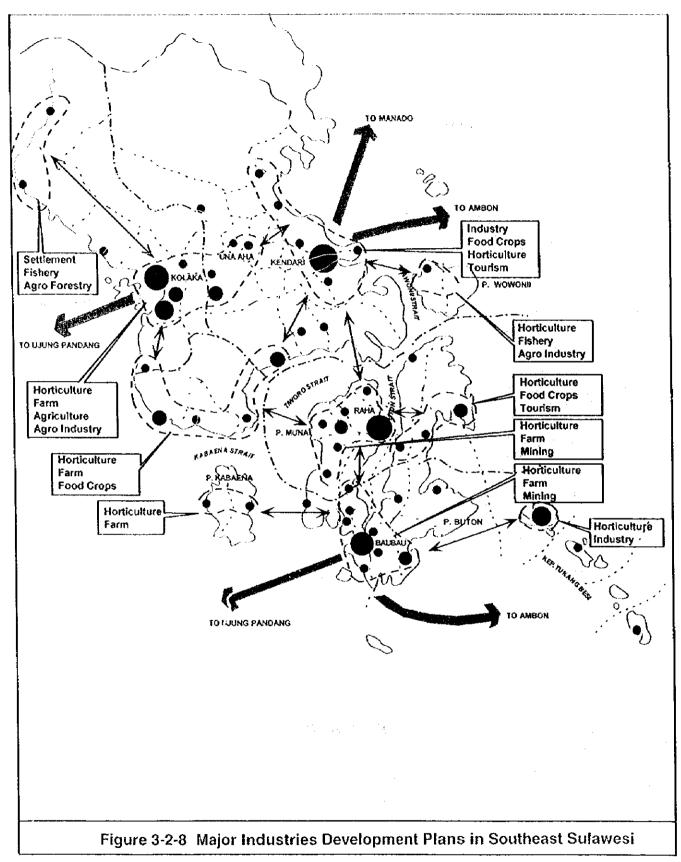
Source: Provincial Structure Plan by Central Sulawesi Provincial Bappeda



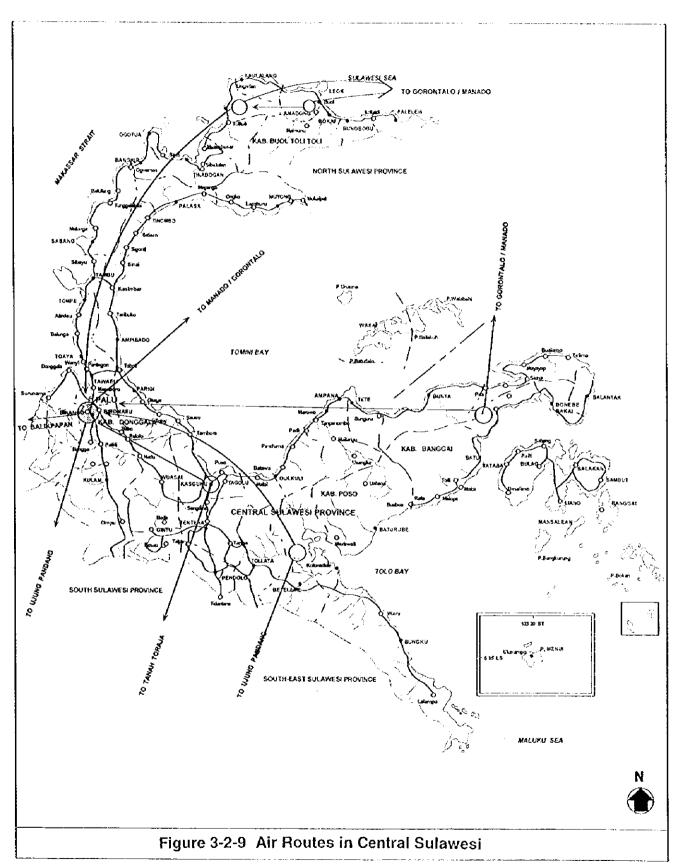
Source: Provincial Structure Plan by Southeast Sulawesi Bappeda



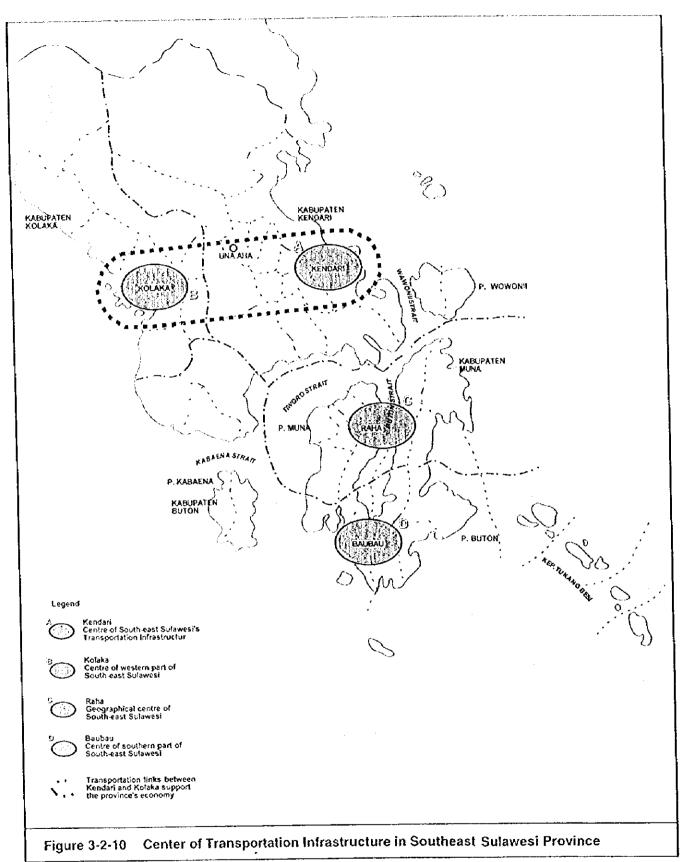
Source: Strategic Plans by Dinos Perindustrian, Central Sulawesi Province



Source: Strategic Plans by Dinas Perindustrian, Southeast Sulawesi Province



Source: Regional Office in Central Salawesi, Ministry of Communication



Source: Regional Office of Southeast Sulawesi, Ministry of Communications

## 3.2.3 Population Growth and Distribution

## (1) Process

The provincial population projection for the years 1990 to 2020 made by the Demographic Institute of the University of Indonesia<sup>2</sup> is employed as the basic population framework. This projection utilized the standard five-year period age-component method, and an assumption on migration was added. The provincial projections for the years 1995 to 2005 were adjusted by a more recent projection by the Central Bureau of Statistics<sup>3</sup>. In addition to the above, another recent projection by the Central Bureau of Statistics<sup>4</sup> by kabupaten and kotamadya for the years 1990 to 2000 was employed.

The projected population of each province was utilized as an independent control total on kabupaten population projection. Kabupaten population projection utilized the past population growth trend-base method, adjusted to each provincial control total. Corresponding to the requirements of the traffic forecasts, the kabupatens of Central Sulawesi and Southeast Sulawesi were projected at the kecamatan level. For these kabupatens, the population by kecamatans were also projected utilizing the past population growth trend-base method, adjusting to each kabupaten control total.

## (2) Future Population

The annual growth rate of the republic's population, which recorded 1.98% during the last decade (1980-1990), will gradually decrease from 1.73% in 1990-1995 to 1.10% in 2015-2020. According to the institute's study, "The second demographic revolution is currently underway in Indonesia. The first is the fast change in mortality occurring since about 35 years ago. The current revolution is on the rapid decline of fertility rate. Indonesia will end its demographic transition (indicated with NRR -- net reproduction rate -- equal to one) in 2000-2005. After 2005, Indonesia demographic condition (Fertility and mortality) will be close to those observed in developed countries such as Australia in 1990".

The results of the population projection at the kecamaten level for Central Sulawesi and Southeast Sulawesi, and at the kabupaten level for North Sulawesi and South Sulawesi are presented in the following (Tables 3-2-4, 3-2-5 and 3-2-6, and Figures 3-2-11, 3-2-12, 3-2-13 and 3-2-14.

<sup>&</sup>lt;sup>2</sup>Population Projection of Indonesian Provinces 1990-2020, The Demographic Institute, University of Indonesia, 1992.

<sup>&</sup>lt;sup>3</sup>Proyeksi Penduduk Indonesia Per Propinsi 1995-2005, Biro Pusat Statistik, 1997.

<sup>&</sup>lt;sup>4</sup>Proyeksi Penduduk Indonesia Per Kabupaten/Kotamadya 1990-2000, Biro Pusat Statistik, 1994.

Table 3-2-4 (1) Urban and Rural Population Projection by Kecamatan in Central Sulawesi, 1998 - 2018

				ļ								5300			2018	
		Щ	1998			2003			81	John T	Limban	Rural	Total	Urban	Rural	Total
Province	Kabupaten/Kecamatan	Urban	Rural	Total	Crban	Rura		uee)	20 007	2007	o	21,559	21,559	0	22,130	22,130
Central Sulawesi	Kec, Lobang Kurung	ō	19,461	19.46	0	20.229	22.02	5 6	900	88	0	97.881	97,881	0	104,613	104,613
	Kec. Batui	0	76,402	76.402	٥	83,729	62/3		300	16.406	Ö	16.903	16,903	ö	17,266	17,266
	Kec, Totikum	0	15,529	15,529	0	16,039	2	S	9	40 128	ŏ	9.756	19,756	0	20,328	20,328
	Kec. Tinangkung	ö	17,682	1283	ō	18,437	2 2	5 6	7, AV	15.708	ō	16,145	16,145	ō	16,537	16.537
	Kec. Liang	ö	14,685	28	ō,	15,222	200		368.40	24 R36	ō	24,987	24,987	O	25.100	25.18
	Kec, Bulagi	٥	24.384	7 7 7 7	0	25.63/	3 3	5 6	- SO 9	16.951	0	17,209	17,209	ŏ	17,430	3
	Kec. Buko	ō	16,302	16 302	ļ	0000	0.000	2 2 2	20.810	26.075	6,957	20,391	27,348	9.192	19.332	28.524
	Kec. Banggai	3,010	20.246	23.230	1	62/02	00 10	10.493	47 888	58.385	13,872	51.873	65,744	18,329	54 867	ر ا
	Kec. Bunto	9	38,278	44.278	7	0000	8		11.314	11,314	0	11.687	11,687	ó	12 027	12.027
	Kec, Kintom	Ö	0,455	10.455	L	200	2 2	70.615		70.615	78,764	ō	78.764	85,194	ō	\$ \$
	Kec. Luwuk	43,647	14,692	0 8 8	ñ	6000	3 8	1 074	22 028	23.102	1,420	22 556	23,976	1,876	22 980	24,776
	Kec. Lamala	614	20,507	21,121	*	3	26,131		98.5	13.961	0	14.234	14,234	0	14,473	14,473
	Kec, Balantak	ō	3.295	13.295	1	9	2 6	808	22 870	40.698	7,700	34.687	42,387	10,174	33,762	43.937
	Kec. Pagimana	3,331	36.262	36,893	1	2	8 8	03.084	35,6 870	449,099	108,712	369,869	478,581	124,765	380,766	505.530
	Kab, Luwuk/Banggai	56,602	336.480	35.083	74.95	20.5	2007	23,00	1.00	1.008	0	12,214	12,214	Ö	12,391	12,391
	Kec. Menui Kepulauan	٥	11.419	11.419		3	C 2	2	24 630	2.629	0	22.037	22,037	ō	22,373	22,373
	Kec. Bungku Selatan	0	25,548	8 8 8 8		21,136	200	9,0	EE AK7	2.09.5	1927	61.612	63,539	2,546	67,583	70,129
	Kec. Bungku Tengah	847	43,016	43,862	1,13	49,225	50,333	60,7°	20.00	3 2	d	27 017	27,017	ō	30,554	8,55
	Kec. Lembo	Ö	12.090	17.090		20.242	20,242	5 0	1 60	3	Ö	1.69	1,69	õ	11,755	11 755
	Kec, Mon Atas	o	1.30	11.304		11,476	0.475		049	2	C	33 029	83,03	Ö	36,496	36.496
	Kec. Pamona Selatan	٥	22,708	22,708		26,094	26,034		8	200	`   	32.215	32.215		33,112	33,112
	Kec. Pamona Utara	ö	28.733	28.733	Ì	30.037	2008 08	1	200	100	907	6610	8,106		6,195	8.173
	Kec. Lore Selatan	657	7,082	7,739	اه	- 1	7,893	-	0000	2 2	Ċ	15 588	15,588	ō	16,355	16,355
	Kec, Lore Utara	ō	12,910	12,910		Ī	3,865		00/2	44 676	,	45 939	45,939		50,274	50.274
	Kec. Poso Pesisir	ö	32,700	32,700	1	3, 18	37,106	1	2	300	40.716	č	49.3-6	51.9	ò	51.948
	Kec. Poso Kota	28,764	11,199	39.964	3.75	4.658	42,165	45,29	00000	803.4	2	17.303	17,303		17,927	17.927
	Kec. Lage	0	14.994	14,994		15.840		5 0	2000	20007	ò	21.338	21,338	0	21.697	21,697
	Kec. Tojo	ō	19.785	19,785	١	1	20,030	7.84	19.798	27,662	10.391	17,906	28,297	13,72	15,068	28,797
	Kec. Petasi	4.564	21.436	26,000	S.C.	70 SOT	20,03	L	23.820	23,820	ō	27,023	27,023		30,269	30,269
	Kec. Bungku Utara		17 69	Ţ		10.03	10.288		11.433	11,433	0	12,562	12,562	ō	13.664	13.664
	Kec, Ulu Bongka	0	6 6	i	0	16 474	16.373		17.637	17,637	Ö	18,834	18,834		19,959	19 959
	Kec. Ampana Tet		15.048	ł	20.0	70.00	25.503	8 35	16,807	25,206	11,098	13,746	24.844	14,6	9,716	24 380
	Kec. Ampana Kota	4,875	20,870	46.048		16.547	16.547	L	16,171	16,171	o	15,797	15,797	ō	15,634	15.434
	Kec. Una-Una	5 0	11 071	100		12.266	12,266	o	12,507	12,507	٥	12,701	12,701		12,856	000,21
	Kec. Walea Kepulauan	29.707	386.563	406.270	51,77	1"	436,882	64.148	403,859	468,008	74,228	425,166	499,394	84,86	00000	2007
	Kac Katawa	ō	29.188	ı	ŏ	30,166	30,166		3,042	31,042	ö	20,0	20,024	0 0	25.60	19,602
	Spot Ook	0	ı	1	ō	51,763	51,763	Ö	55.55	53,543	5	201,00	30,00		117.675.	117 675
	Kac Sighiromaru	Ö	1	1	٥	90,677	90,677		- 1	99,823	ō	28,82	108,007	7.00	115,897	122,982
	Kec Pangi	2212	ŧ	88,003	3,071	93.954	97,025	<b>4</b>	٦,	105,902	8	103.K.I.R	ı		120,701	42.701
	Kec. Marawola	٥	П	li		36.297	36,297		38.557	700'00'	20 00	97.893	1	17.43	19,701	64.472
	Kec. Banawa	13,977				35,622	55,030		200	000	1	2000	1	ļ	21,620	32,764
	Kec, Tawaeli	3,479		23,772	4,83	21.301	١	3	300	100,41		75067	45.067	L	86.98	46.898
	Kec. Ampibabo	0	1	ı		40,973			12,032	250,04	١	32 789	1	ō	33,801	33,807
	Kec. Sindue	o					30,461		0/0.	21,010		10.502	ı		20,228	828
	Koc. Sirenia	ō	li	16,951			300		10,/15	78.465		27.516	ı		28,481	28.481
	Kec.: Balaesang	ö		1		1	١		5 5	28. 83		69 143	ı		908'59	65,306
	Kec. Dampelas Sojol	0	- [	ı		ŀ	25,240	1	30,00	47 093	886	39.102	ì	13,05	37,650	50,705
	Kec. Tinombo	4,076	88.70	42,776		1000	45.050 60.050		200	65.832		ļ	_	١.,	78,541	78.541
	Kec, Tomini	٥	52,982		5 6	32,530	85.75g	٦	100,536	100.538	ō	-			132,337	132,337
	Kec. Moutong		355			22										

Table 3-2-4 (2) Urban and Rural Population Projection by Kecamatan in Central Sulawesi, 1998 - 2018

				0000	2013	_	2018	
		8001	2003	2000	ŀ	19765	E Singe	- iotai
			Leben Rural Total	Urben Rural Total	Urban Rural for	5		0.00
Province	Kabupaten/Kecamatan	Urban Hurai lousi		A99 708 - FCA A37 1 + 22 124	57.559 810.229 867	867,788 76,	76,054 849,950	350,012
	Spanned Assa	23.743 661.767 685.510	32,968 714,171 747,139	1	24.780	24 780	0. 25,897	25,897
	Nation Constitution	ĺ.	0 22.326 22.326	0. 23,590 23,590	Ţ			17. 7.
	Kec. Dampal Selatan	1	1	00.41  000.41	0 14.195	4,195	2	
	Kec. Dampal Utara	0. 13,513 13,513	13,775	91.674	0 33,725	33,725	0. 35.686	35,686
	Ker Dondo	0 27,319 27,319		5	70 710 22 307	02.017 105	105,323 2,015	107,338
	Kar Boalan	35,801 36,240: 72,040	45,657: 36,294	35,00	165.95	36.591	0 38,857	38.857
	Kec. Galano	0 29,262 29,262	31,781	34,469	0 24.353	24.353	0 25,562	25,562
	Kec. Litara Toli-Toli	0 20,306 20,306	0. 21,722	23,074	0 28.417	28 417	0 29,494	29.494
	Kec. Biau	0 24,674: 24,674	0 26,008	0. 64,633	0 22 361	22 361	0 23,284	23.284
	Kec. Momunu	0 19,190 19,190	0  20,314	20,75	0 19,178	19,178	19,561	19,561
	Kec Bokat	17,731 17,731	18,268	02/01	0 16.355	16,355	0 16,586	16,586
	Kec, Bunobodu	0 15,437 15,437	0 15,785	60001 0	0: 16,528	16,528	0 17,398	17,398
	Kec Paleleh	0 13,643 13,643	0 14,648	0 1007 230	70710 258790		105,323 248,703	354,026
	Kab. Buol Tol-Toli	35,801 238,306 274,107	45,657 250,452 2	029,762,726,09	100,402	Ĺ	107 222 1 0	107.222
	Kec. Palu Selatan	75,449 3,514 78,963	85,206	93.433	0 209.06	L	0 192'96	96,761
	Kec. Palu Barat	67,392 3,908 71,300	76,577 0	715.40	0 965 59	69,596 74	74,323	74,323
	Kec Palu Timor	54,429 486 54,915	59.860: 0	200.100	8 779 25.818	_	11,600 25,319	36,919
	Kec. Utara	2.541 24,805 27,346	5,028 24,753	100°C2 000°C	260 3841 25.818	L	289,907 25,319	315,226
	Kod, Palu	199,811 32,714 232,524	226,671	249,1581 25,567	589,593-1,889,871-2,		680.913: 1.948,425	2.629,338
	Sulaweei Tenggah	355,664 1,634,830 1,990,494	432.02711,719,813,2,151,840	10/4/210				Ì

Source: Dulam Anjska Kuhuputen. Central Sulawesi and Estimation by JICA Study Teum

Table 3-2-5 (1) Urban and Rural Population Projection by Kecamatan in Southeast Sulawesi, 1993 - 2018

		199	Populatio	١	8001	Popular	8	2000	3 Populati	8	200	2008 Population	5	2013	Populatio	Ę	2018	Population	ç
Province	Kabupaten/Kecamatan	Urban	an Rura	Total	Crban	Flura	Total	Caban	Rural	Totel	Urban	Hurai	Total	Urban	Rurs	Total	Crean	Rural	Total
Southeast Sulawe	Southeast Sulawe Ket. Binangko	Ó	11,498	11.498	Ġ	12,349	12,349	Ó	12,992	12,992	0	13.508	13 508	0	13,919	13,919	O	14.247	14,247
make it a major promise a gradual	Kec. Tomia	3,362	9.490	12.852	4.26€	8 990	13.256	5.585	8.225	13.810	7.227	6,982	14,210	3,362	5,103	14.465	12,139	2,308	14,47
	Kec Kaledupa	d	14.158	4 59	c	14.550	\$ 5 1	•	14.R1	14.811	0	14.962	14 962		15,036	15,036	ō	15,056	15,056
	Kee Wann-Wann	ļ	33.513	33.513	ŀ	36 730	35 733	٥	37.683	37,683	0	39.261	39.26		40.53	103.04	٥	41,550	6.55
	Ker Lasaimu	c	20.02	20.132		8	25.00	c	28.735	28.735	ľ	32 386	32.78	0	35,810	35,810	ė	38,979	38 979
	Kec. Pasar Waro	7.3.2	21.466	28.778	9.279	21.466	30.764	12.47	2. 12	33.252	15 720	19 536	35 356	20 364	16.741	37,106	26.404	12,055	38,459
	Kec. Sampolawa	0	0 26,085	26,085	٥	28,014		0	30,340	30,340		32,353	32,353	o	34,084	88.88	Ċ	35,565	35,565
	Kec. Batuaga	0	23,015	23,015	٥	25,173	25.173	0	27,299	27.299	O	29.144	23 14	ö	30.73	8	ó	8 8 8	32.88
	Kec. Sorowatio	٥	4,778	4,779	٥	5,455	5,455	0	6,076	6.076	0	6639	6.639	ö	7,145	7,146	اة	§	2,586
	Kec. Bungi	0	8,568	8,568	٥	9,059	9,059	ō	6 6	9,600	0	10.00 40.00	10.04	ō	10,407	10.407	ŏ	10,783	10,703
	Kec. Kaponton	o	8,605	8,605	0	9,742	9,742	0	10,704	10.704	ō	11.559	11 559	o	12.312	12,312	ë	12.971	12.97
	Xec. Gu	0	17.399	1,38	0	16.94	16,94	8	15,829	15,829	0	14,842	14.842	Ö	13.977	13 977	Ö	13,226	13.226
	Kec Lakudo	0	14,035	14,035	0	14,912	14,912	٥	15,852	: 5,852	٥	16,631	16 631	ō	17.273	17.273	0	17.802	17,802
	Kec Mawasancka	5.669	22,217	27,887	7,194	23,096	30,290	9,418	23,707	33,125	12,189	23,412	35,600	15,789	21.951	37.740	20,472	19,081	39,553
	Kec, Kabaena Timor	٥	14,527	14,527	0	5,430	5,430	ō	16,400	16,400		17,202	17,202	ò	17,864	17.864	ō	18,408	18,408
	Kec Kabaena	o	13,517	13,517	0	13,643	13.66	°	12.552	12,552	٥	11,611	11,611	O	.0.807	10,807	0	10,123	10.123
	Kec, Paleang Timor	3,979	14.829	18,808	8,0,8	12,219	17,268	6,61	10,096	16,706	8,555	7.539	16.094	11,082	4 309	15,392	13,358	. 563	\$
	Kec Paleano	ŀ	19898	19.898	ō	21.039	21.039	0	.9 893	19.893	0	18,844	18.844	O	17 906	17.906	ó	17.077	17071
	Ker Bumba	6	22, 680	24 689	c	27 025	27.025	0	31.268	31.268	0	35 324	35 324	ō	39,138	39,138	Ċ	42,679	42,679
	Ker Wole	28.052	c	28.052	78.735	Ö	28.735	26.520	c	26.520	24 599	ō	24.599	22.950	ō	22,950	21,542	ō	2,542
	Kan Bato Amhan	30.146	2077	33 623	24.673	ō	34.673	37.407	O	37.407	38.847	0	38.947	39,989	ó	39.989	40,894	ö	40,894
	Kab. Buton	79.420	325.797	405.217	96.68	339,760	428,956	97,689	353.165	450,852	107.138	361,879	469,017	119,538	365,048	484,585	34,808	363,087	497,896
	Kec. Tonokuro		14.265	14.265	٥	4.216	14.216	ō	14,056	4.058	Ö	13,810	13,810	Ö	13,513	13,513	Ö	13.190	13,190
	Kec Pano	¦c	16.858	58.91	c	8.88	18.888	0	20,618	20.618	ا	22,086	22.086	ō	23.305	23 305	ō	2.23	2,298
	Kec. Kabawo	\   	131	18.131	ŀ	00061	00061	o	19 600	19.60	Ö	19.983	19,983	٥	20 196	20 196	ō	20.276	20.276
	Kec Tiworo Keculatian	ľ	9.445	19.445	ō	19,458	19.458	ō	19 305	19,305	0	19,024	19,024	0	18,663	18.663	0	18.259.	18,259
	Kec Laws	ō	21.829	21,829	ō	22,832	22,832	٥	23,516	23,516	ō	23,942	23,942	Ö	24,166	24.166	Ó	24.237	24.237
	Kec. Kusambi		24,061	24,061	ö	25,277	25,277	Ō	26,129	26,129	Ö	26,688	26.688	ö	27,013	27,013	ō	27.159	27.159
	Kec Katobu	30,593	21,438	52,031	38,620	14,268	52,888	46,384	7,508	53,892	52,386	٥	52,386	54,599	٥	56.59	907. 35	٥	8
	Kec. Napabalano	Ö	19,021	19,021	0	9,838	19,838	٥	20.382	20,382	o	20.707	20.00	ā	20.862	20,862	اة	20.889	2 8 8
	Kec. Wakonimba Salatar	ō	10.183	10.183	o	10,557	10,557	٥	10.792	10,792	Õ	10.916	10.016	0	10,955	10,955	o	10.933	10,933
	Kec Bonegunu	0	8,831	8,831	0	12,092	12,092	0	15,652	15,652	Ö	19.468	19,468	ō	23 413	23 413	ō	27.372	27.372
	Kec. Wakrumba		9.934	9,934	0	10,726	-0.726	0	11,348	11,348	Ö	11,828	11,828	ō	12.186	12.186	ō	12,442:	12,442
	Kec, Kalususu		23,907	23,907	o	31,347	31,347	Ò	39.104	39.10	Ö	47,085	47,085	0	55,037	55,037	ō	62.781	62.76
	Kab Mune	30,593 207,901	207,901	238,495	38.620	218,499	257,119	46,384	228,008	274,392	52,386	235.537	287.923	88	249,307	303.906	, 206. 20.	261,817	316 023
	Kec. Tinangges	2,869	39,131	85.08	3,919	40,983	26.4	5,429	46,035	2	7,072	5	88	87. 87.	9 3	8	12 012	8	8
	Kec. Palangge		7.455	7.455	ö	18.59	8.59		21.186	20	ō	24,030	8	ة اة	2603	8 8	0	20.2	2 2
	Kec. Konga		12.364		ا ا	3.386	200		16.75	16,75	٥١٥	10801	0	á i	27.23		5 6	70.07	0 0
	Kec Linea	0	28.592	28,592	۰,	50 5	5 6	٥	100	200	5 6	1000	014.00	5 6	960	20 000	5	V + + 20	36.44.
	Kec. Moramo	ö	27.972	2.8	ò		23,421	5 6	8	20,70	5 6	27.450	27.50	ء اد	0000	25,020	į	21 484	200
	Nec. Wowoni	-   	5	66	٥	6,4/0	6,4,0	2	2004	200	3 6	062.3	262.4	3	18 157	19.000	٥	10 587	10,00
	Kec Sorons	5 6	900	2	5 6	0.70	0.70	à	40.	11034	0	12.497	12.497	, °	13.519	13.519	٥	14.436	14.435
	Xeo Namoara	1 142	0 4.80	20.63	105	20.265	21.825	2.186	22,623	24.783	2.814	25.77	27.881	3.667	28.54	-   	4 780	27.411	32.19
	Kec. Ronameto	ľ	14.229	14.229	0	4.30	38	0	15.86	15,585		16,397	16.997	0	17.79	14.76	0	18.458	18.458
	Kec Londono	ō	15.827	15,827	0	21,820	21.820	Ö	30,462	30.462	0	41.279	41 279	ô	52.248	52.248	0	64.004	64.004
	Kec. Lembuya	1	36,918	36,919	٥	40,813	40,813	ö	47,872	47.872	٥	55,696	55,696	Ö	61,685	61,685	ŏ	67.233	67,233
	Kec. Padihaha	Į.	28,500	28,500	o	29,272	29,272	Ö	32,415	32,415	0	35,864	35,864	Ö	38.014	38.014	Ö	39,875	39.875
	Kec. Wawotobi		21,123	24,773	4,986	20,547	25,933	6,908	22,431	29,339	8,997	23,932	32,930	11,724	23,629	35,353	15,282	22.198	37,479
		248	7.419	18,667	1,705	17,711	19,416	2,362	19,411	21,773	3,077	21,236	24.312	600°	21.972	25.981	5.226	22.217	27.45
		0	18,217,	18,217	ō	19,247!	19.247	ō	2.78	2.7 8.7	ō	24.578	24,578	٥	26 494	8	0	28 202	26 202
		0	20,146	20,146	ő	20,931	20,931	0	23,388	23,388	0	26,081	26,081	ō	27.834	27.834	ō	37.	29.372
	Kec. Asera	0 12,993	12,993	12,993	ō	16,458	16,458	0	21,487	21,487	0.0.0	27,455	27.455	0	33.005	33.005	300	38.667	38.04
	1	910	356,130	365,040	12,170	384,550	396,719	16,859	4.44,438	461,297	21.959	512,056	534,016	28,615	561,742	590.357	37.30	506.459	9 2
	٦	49,180	23,5611	72,741	68,464	17,684	86,148	99,608	13,130	111,738	128,500	6,558	135,056	159,739	ò	58,735	196.33%	Þ	380.03

Table 3-2-5 (2) Urban and Rural Population Projection by Kecamatan in Southeast Sulawesi, 1993 - 2018

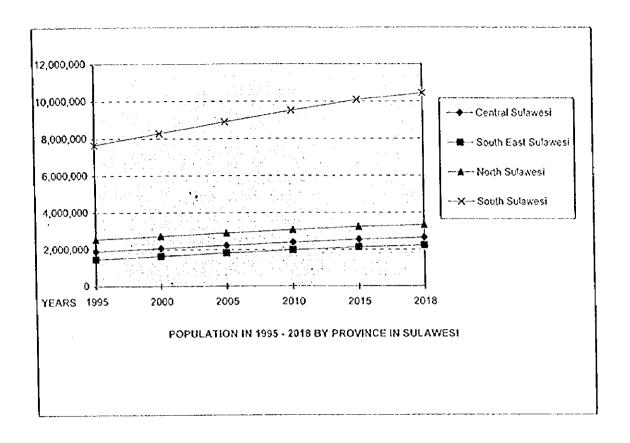
													-	2000	2000	-  -	2018	Octabion Stoc	
				-			,	2000	Contratante Chica	5	2002	2008 Population	_	5	COLUMN PODOS PERON				I
		- 253	1993 Population	ا	\$	STORY OF STREET							12000	4	Birtrail	Total	Cross	RCZE	Total
	Mah. patentifecameter   Inhan   Rufal	Cett	Rufal	Total	500	- -	ote	C PE	67.0	9(8)	200	NG G	t				,	200	10 36 0
Linking	Lacon March Control of the Control o				è	040 66	44 440	<	24 000	24 990	ò	26.379	26.379	Ö	27 48	2/49/	;   	200	S:
	Kec. Poasia	ō	21.243	27.12	5	7/7/03	23.516	<b>\</b>			200	ا	81.70	63 644	ò	53.644	680'59	0	65,089
	Kor Kandari	48.774 5.1	-	53,935	2,336	Ö	54,236	59.46	ŏ	6	5	1	-			ı	36. 48.	28.763	2773 BAS
		07.054	4	147010	122.700	40.956	163,657	157,754	38.120	195,873	190,207	32,9361	23.14	3	7,40, 63,00	П			1
	Rod. Aerican	100	- 1			100000	100000	c	20.499	40.422	Ö	48.458	48,458	õ	56 539	\$6.539	Ö	3	į
	Kec. Watubangga	o	86,717	26.717	2	ž,	۱ الا	1	1		0000	١	24 148	24 800	  - 	24 800	25,301	ö	25.301
	Kec. Pomalas	5,733	9.390	21,123	19.306	2,254	1.58°	27.76		27.75		\     	•		47.040	17 049	Ċ	17.545;	17.545
	Non Windsho	ā	5	19.253	ō	19,054	19,054	ò	18,735!	18.735	0	18.354	- 1	Š,	, ,		1	71 750	780
	Constant of the constant of th		1	112 055	c	24.010	24.010	c	42.975	42.975	0	52,416	52,416	ò	02.083 0	3	ا		
	Kec Landongi	٥	41.500	321				3.5		055 67	7 187	13.066	21.153	9368	14.237	23,605	12,215	13,665	25,380
	Kec Tirawuta	2,823	10.866	13,689	3,915	1,909	970'6	9.5.6	3	2000			26000	20.25	A5 824	50.029	44 627	7.653	62,280
	Ked. Kolaka	10,313	10,313 24,746	35,059	14.304	24,201	38,505	20,152	22,870	2000	(07.07	200	0100	1	000	000	č	5.624	5.624
	Con tatalo	c	26.870	26.870	0	31,244	31,244	ō	36,666	36,666	ō	4 825	626.		2		į	0.00	0.00
	COM.	,	1	5	-	9	90: 1	ļē	17.89	17,091	ō	19,851	19.851	Ö	22.527	72.27	٥	670,03	40.00
	Kec. Mowewe	3	3		1		02000	į	810.4	41.018	ē	45,339	45 339	ō	48 34	48 34	٥	50,965	50,963
	Kec. Lasusua	ö	88	80		30,059	600	1	1000				87 470	Ö	78.601	78,601	o	89,538	89,538
	Kec. Paxue	Ö	37,406	37,406	ō	8 60 7	45,607	i	30.50	20.2/3	0		020	1202.03	020 202 362 040	43.433	44. 58	352,329	474,473
	Keh Koleka	28.869 225.3	225,390:	90: 254.259	37,525	253,287	37,525  253,287  290,612		48,415   290,100   338,515	338,515	5/ 55c 35c 35c	320.35	2000	- 1	1	1	1.	SK9 M.4.9	0.0
		9,1		000 0.7 . 00	500 244 14 037 DED 1 597 263	937 059		367 101	367 101 1,353,829 11,720,930	1,720,930	429,282:1.470,746:1.900,028	470,74611	828	- 1	494,52711,566,623,2,061,151		• 1	2	
	Sulawesi Tenggera	245,746 1,105.		410.365	2,000														

Source: Dolom Angka Kabupaten Southeast Sulawesi und Estimation by HCA Study Team

Table 3-2-6 Population Projection by Kabupaten in North and South Sulawesi, 1998 - 2018

				Population		
		2000	2003	2008	2013	2018
Province	Kabupaten	1330	301 999	000 574	505 334	534.115
North Sulawesi	Kab. Bolang Mangondow	418.831	1.100	25.0.00		A1 A 007
	Kab. Gorontalo	649,560	681.778	416.77/		COS 67:
	Kod Gornatalo	133.462	141,132	150.668	758.651	080.001
	Change World	100 007	441.374	488.772	536,066	582.858
	Nod. Midliado	714 025	732.162	760.048	786.006	810,101
	Nao. Minanasa	780 890	277.326	289.317	300.547	311.030
	Nao. Sangine 1 alaut	107,615	110,390	114.633	118.585	122,254
	Nod. Bitung	0.670.370	2 828 448	3,001,802	3,168,671	3,328,465
	North Sulawesi	10.440.7	071.070	102 006	101.919	101.541
South Sulawesi	Kab. Selayar	10.101	107.77	275 657	385.803	394.185
	Kab. Bulukumba	170,445	100.000	106,621	300 708	211.873
	Kab. Bantneng	158,138	1/2,/35	100.001	000,000	411 604
	Kab. Jeneponto	321,997	347,090	370,484	0.765	411.024
	Kab. Takalar	222,930	239,301	254,452	7015.807	+C0.007
	Kab. Gowa	469,265	506.899	542,108	574.665	404,400
	Kah Siniai	204,933	215.729	225,317	233,718	/85.047
	Kah Boos	607.372	606.988	604,468	600.214	594,594
	Vot Maron	056 430	278.416	295,982	312,042	326.572
	Nat. Manos	260 250	271.053	280.245	288.006	294,444
	Nao. Fang. Nepuladan	152 406	156 082	158.960	161,120	162.647
	Каб. Бати	201.00	220 000	222 075		231,263
	Kab. Soppeng	731.791	000,000	700 300		
	Kab. Wajo	403,665	405.338	402,000	000 000	
	Kab, Sid, Rappang	241.765	250,674	728.201	0011107	207.430
	Kah, Pinrang	310,239	321,136	330.275	337.780	545.738
	Kah. Enrekang	157.311	163,687		173.753	177.361
	Kab Luwn	834.311	957.035	1,		1.328.895
	Kab Tana Toraia	375,031	386,608	396,113		409,606
	Vab Dala Mamasa	432.338	448,482	462,152		
	Material Moisse	136 437	139.923	142,685	144,792	
	Nat. Walcuc	205 505	407 059	515,431	645,389	791.050
	Kao. Mamuju	1 365 647	1 550 670	1 732 631	1.912.022	2,086,705
	Kod. Ujung Pandang	1.500,047	115.05.0	300 101		133,352
	Kod. Pare-Pare	10,388	CO2.C11	0 0 0 0 0 0 0	0	10 430 641
	South Sulawesi	8.016.456	0.02/,400	7.247.000		

Source: Dalam Angka Propinsi and Estimation by JICA Study Team



Source: JICA Study Team

Figure 3-2-11 Population in 1995 – 2018 by Province in Sulawesi

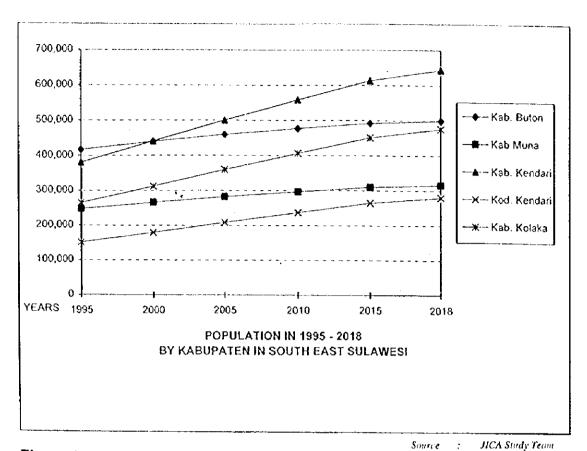


Figure 3-2-12 Population in 1995-2018 by Kabupaten in Southeast Sulawesi

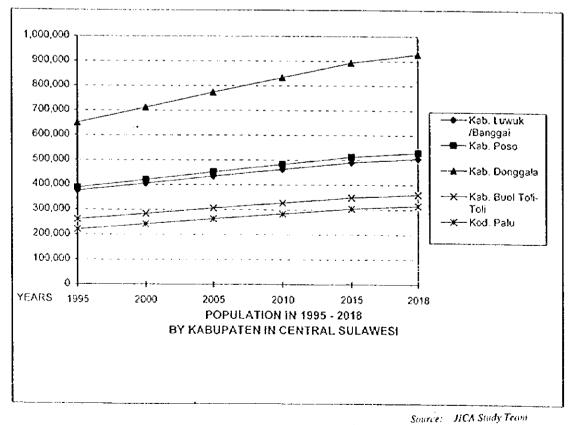
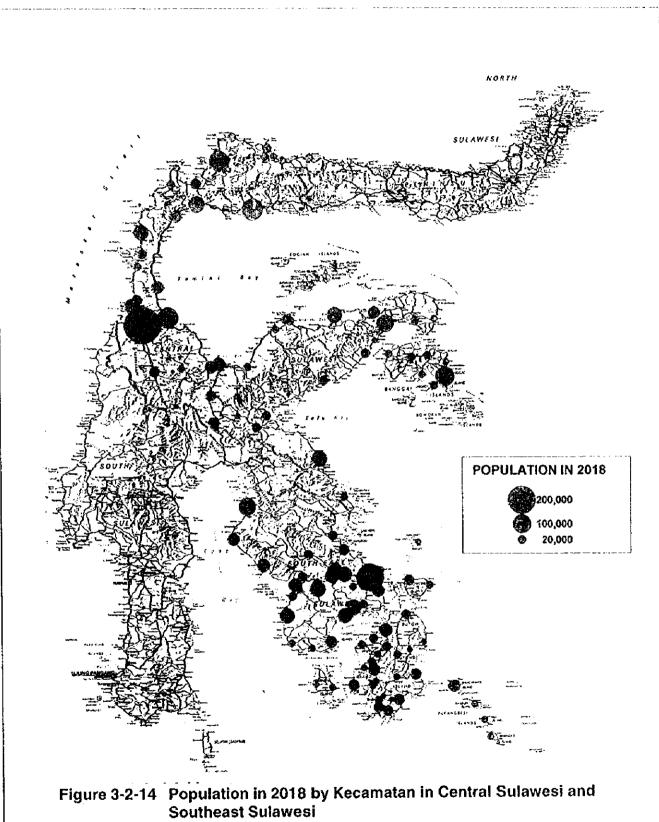


Figure 3-2-13 Population in 1995-2018 by Kabupaten in Central Sulawesi 3 - 38



Source: IICA Study Team