

A Public Expenditure Analysis in Agriculture Sector : Evidence from South Sulawesi, Indonesia

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Abstract

Public expenditure has become a serious issue in decentralization era. This paper centralizes how the provincial, district and city spend their budget within the period of 2005-2011. The analysis includes performance indicators at the local level and their comparison at the provincial-level in order to understand the performance of service system. The results of the analysis are expected to contribute to several parties : first, to the local governments in setting development priorities. Second, to the legislature in assisting the evaluation of proposed projects. Third, the central government in observing how the local governments spend their money. Fourth, for individuals, social organizations and civil society organizations can help them in advocacy and lobbying work and the fifth, to the researchers in employing PEA Method in the research. The type of data needed in the analysis consists of primary data which was obtained from in-depth interviews and secondary data obtained from various reports (mainly GDP) in South Sulawesi Province, Indonesia. The research used a descriptive method of statistical analysis. The results show that, (1) the real expenditures in agriculture sector have increased even though with a fluctuative growth during the period of 2005-2011, (2) based on the GDP real prices, the contribution (share) of agriculture sector has declined of 31.26 percent (2005) to 27.98 percent (2009), but it is still the largest share compared to the other sectors, (3) generally, the production of mainstay commodities (rice, corn, beef, cocoa, shrimp) in South Sulawesi Province have increased in the last five years, (4) and specifically, the province is still functioning as a national food basket, as well as the highest producer of cocoa and shrimps in Indonesia. Rice and corn should be developed in the form of quality improvement by creating agricultural organic products through integration with livestock, indicating more public expenditure in agriculture sector.

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I. Issue, Objectives and Contribution

One of the challenges of local governments in the regional autonomy and decentralization era, is how they are able to realize the public services that benefit the public interest. It is recognized that, what the government's goal is not as easy as with what has been previously thought. This is demonstrated by the fact that, the efforts to implement improved public services face a number of obstacles in entering the regional autonomy by 2001. It is almost certain that a lot of issues and problems encountered in practice for this is lack of discipline and consistency of the creation of the government in running the government and development in all economic sectors. Mahi (2010) suggested a possibility of a lack of working synergy between the central and local governments in the decentralization era. The paradigm developed in conjunction with the creation of Good Governance, giving the point to a greater emphasis on transparency and accountability aspects of the budget rather than transparency and accountability of the planning. Therefore, it is no wonder that the discussion of financial issues to be warmer and received sufficient attention than the question of planning. However, planning and budgeting are like two sides of one coin that cannot be separated each other due to mutual support (Nursini, 2012), including the development and management of local organizations in creating financial source for infrastructure and encouraging economic activities of group and local community (Darma, 2011), to support good governance in decentralization era.

In short, we can say that planning and budgeting are interrelated each other, where the estuary of the entire contents and substance of the planning document is budgeting. Programs or activities that are planned in each of the sectors described in the form of five years planning to be an annual work plan, indicating amount of budget requirement. The budget is a statement of the estimated performance to be achieved over a period of time stated in the financial measures. Blocher (2005) defines a budget as a formal expression of the action plan in the future and this means that the budget is compiled each year by the local government can not be separated from the planning activities that have been previously prepared medium and long term. Budget is reflected in the proposed budget / budget is compiled each year by the local government and local budget preparation of a transparent, accountable and participatory in fact is characteristic for Good Governance.

The government of South Sulawesi Province has attempted to apply or implement the preparation of the planning based on a budgeting system that is transparent, accountable and participatory in order to get a Good Governance. Furthermore, to see how the

implementation of (budget-based) planning has been running in South Sulawesi province, the study of Public Expenditure Analysis, particularly in agriculture as an important sector needs to be done.

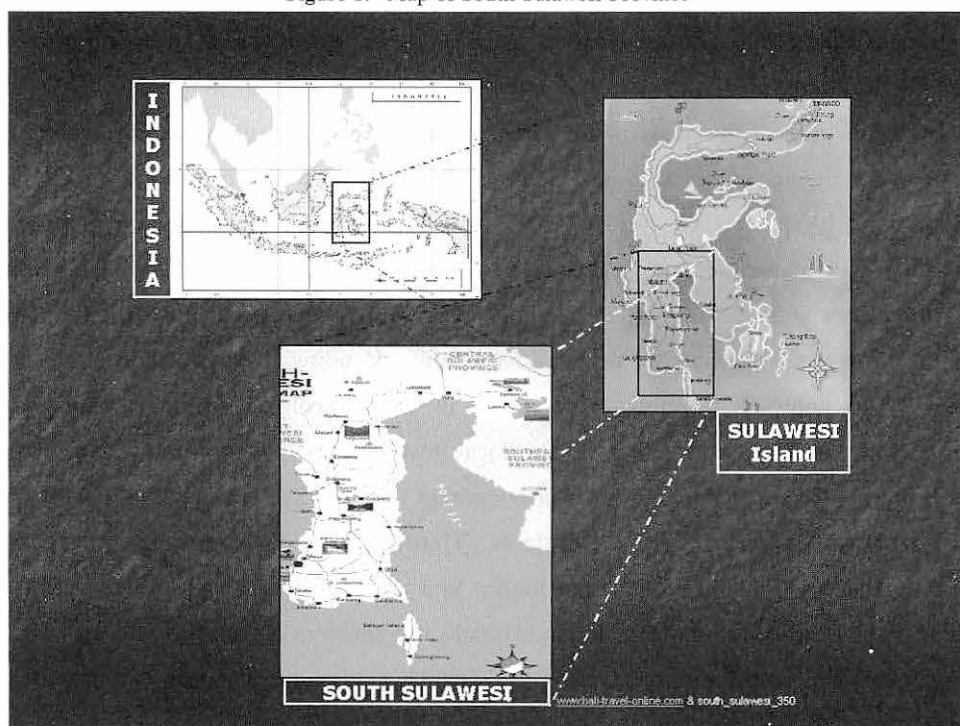
The objectives of the analysis are ; first, to analyze the agriculture sector spending as one of the strategic sectors in South Sulawesi Province, how the provincial government, district and city spend their budget (2005 to 2011). Second, analysis of regional-level performance indicators (either in the form of output and outcome indicators) by linking these indicators with the trends in spending. The analysis was done through comparison with the provincial, district/ city to get a better understanding the performance of service system. The analysis of public expenditure in the agriculture sector is expected to contribute to several parties : first, to the local governments in determining development priorities and allocate budgets to meet development targets. Second, to the legislature can assist in the evaluation of proposed projects. Third, the central government in observing how the local governments spend their money and the extent to which local governments have to follow the rules. Fourth, for individuals and social organizations and civil society organizations can help them in advocacy and lobbying work and the fifth, the researchers in employing PEA Method in the research.

II. Method

2.1. Research Site : South Sulawesi Province

South Sulawesi Province is located in the central part of Indonesian Islands (see Figure 1). The capital city of the province is Makassar which is stretched out between zero and 12'-8⁰ South Latitude, and 116⁰48' up to 122⁰36' East Longitude. The province is bounded by the West Sulawesi Province and Bone Gulf in the north and Southeast Sulawesi Province in the east. On the western and eastern boundaries are Makassar Strait and Flores Sea. The area of the province is 45,519.24 Km² which consists of 20 regencies and three cities. Luwu Utara is the widest regency about 7,502.68 Km² (or around 16.48% of the province area). In the province, there are 65 rivers, 25 of them flow in Luwu Regency. The longest river is Saddang River, whose length is about 150 km. Saddang River flows through Tana Toraja, Enrekang and Pinrang Regencies. The province also has four lakes i.e. Tempe and Sidenreng Lakes in Wajo Regency, Matana and Towuti Lakes in Luwu Regency. Besides, the province has seven mountains. Rantemario Mountain is the highest one (3,470 m in height). The data from Climatological Station shows that the average temperature in Makassar and its surrounding was recorded around 27.0⁰C during 2006,

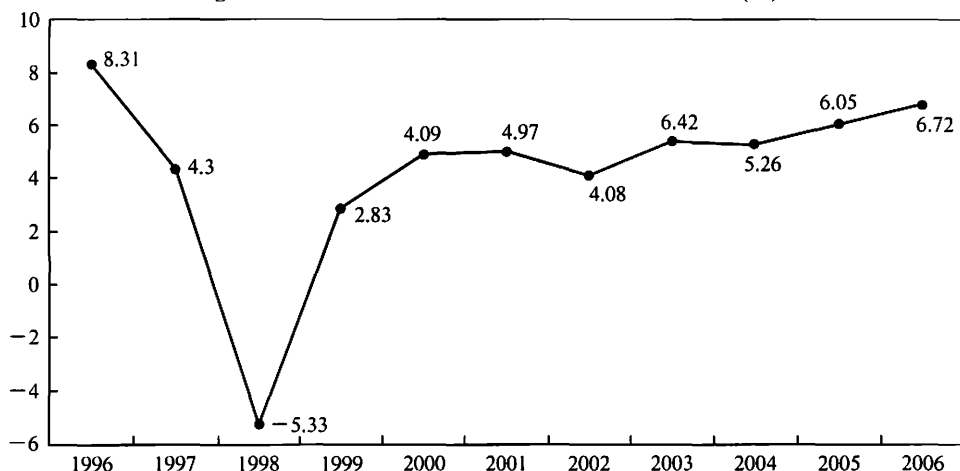
Figure 1. Map of South Sulawesi Province



with the minimum and maximum were 22.8°C and 34.7°C , respectively (BPS, 2007). The SUSENAS (National Socio-economic Survey) data shows that the population of South Sulawesi Province in 2002 was 7,082,807 and it reached 7,625,952 in 2006, with an average population growth of 1.79% (around 108,000 populations) a year during this period. Population density in the province recorded 168 per Km^2 on average (23 districts), with Makassar was the highest (6,961 per km^2), while the smallest one was Luwu Timur (32 per Km^2).

In 2006, economic growth of South Sulawesi Province was 6.72% (higher than the national average of 5.48%). However, this figure (6.72%) is still smaller than the growth rate in 1996 (just before economic crisis, see **Figure 2**). Economic structure of the province has been dominated by the agricultural sector (*pertanian*) as shown in **Figure 3**. The sector plays an important role in South Sulawesi Province economy. During the 2002–2006, the average contribution of the sector was recorded around 32.59% to the total economic structure (Gross Regional Domestic Product) of the province, while the other sectors were ranging only 1.03%–15.61%. In the same period, these contributions created the average economic growth of 5.51%.³⁾

3) The figures were taken and calculated from “Socio-economic Indicators of South Sulawesi Province” and “South Sulawesi in Figures” published by Central Bureau of Statistics, called ↗

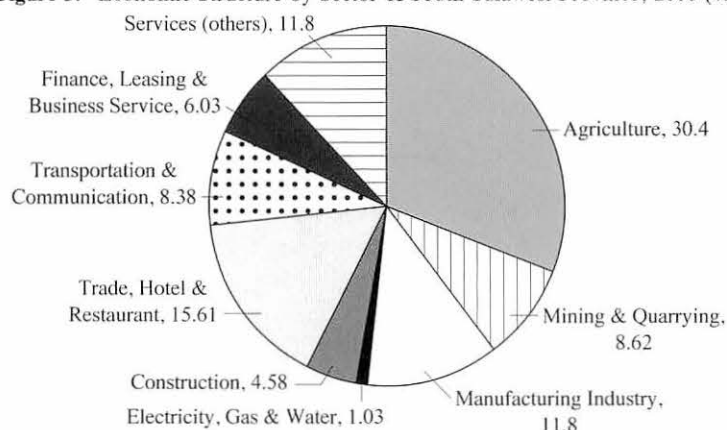
Figure 2. Economic Growth of South Sulawesi Province (%)

If we look at the agricultural composition in terms of land utilization for estate crops, cocoa sub-sector is very impressive. Regionally, in 2005 the cocoa area expansion in Indonesia mainly occurred in Sulawesi Island reached 63.98% with the biggest composition in South Sulawesi Province of 19.26%. Then, the total area of estate crop in the province was recorded 632,977.55 hectares in 2006. About 38.67% (the highest one) of the total estate crop area in the province was utilized by cocoa estate, followed by coconut of 18.06%, coffee (10.68%), cashew nut (10.45%) and clove (6.47%). The remaining shares are another estate crops. In term of labor force, cocoa estate crop absorbed about 262,541 smallholders (also the highest one), followed by coconut of 191,075 smallholders.⁴⁾ It is obviously that the cocoa estate crop still plays a crucial role in the economy of the province, not only in contributing to the economic growth, but also creating employment or labor force absorption.

Analysis of public expenditure in agriculture sector conducted in South Sulawesi Province with considerations that South of Sulawesi played a crucial and strategic role in the development of Sulawesi island and eastern Indonesia. South Sulawesi is geographically located at the midpoint of Indonesia with a total area of 45764.53 square km. The position is placed as a gateway to other regions in Sulawesi and eastern Indonesia through sea transportation (ports of Soekarno-Hatta), land (starting point of

\BPS (2007) and these explanations intensively quoted from Arsyad (2010), *The Dynamics of Cocoa Smallholders in Indonesia: An Application of Path Analysis for Poverty Reduction*, Ph.D., Thesis, Ryukoku University. See also Arsyad and Kawamura (2009), Arsyad and Yusuf (2008, 2010).

4) The figures were taken and calculated from "Agriculture Data Based" and "Areal, Production, and Number of Estate Smallholders of South Sulawesi Province (2006) by Local Office for Estate Crops Affairs.

Figure 3. Economic Structure by Sector of South Sulawesi Province, 2006 (%)

trans-Sulawesi) and air (Sultan Hasanuddin International Airport). In the past, Makassar was an international port both before and in the colonial era, and when South Sulawesi was formed at the time of independence, Makassar became the capital of the province. Thus, from the time span of the past to the present, the position as gateway of Sulawesi and eastern Indonesia, even the position of the center point of Indonesia, attached to this province. In addition, South Sulawesi experienced significant regional development in the era of decentralization and regional autonomy.

South Sulawesi's economy experienced a fluctuating growth, however it is above the national average. The rapid economic growth in South Sulawesi in recent years is expected to encourage economy of Sulawesi and eastern Indonesia. GDP of South Sulawesi in the field of business characterized by significant growth in value but with a slow shift from agricultural to non agricultural. The slow transformation of agriculture into industry in South Sulawesi is due to national and regional development policies that are more priority in agriculture to keep the position of this province as a national food basket.

2.2. Type, Collection and Data Analysis

For the analysis of public expenditure in agricultural sector, the type of data is quantitative primary data obtained from in-depth interviews with key informants related to financial management, from planning, implementation to monitoring and evaluation. Key informants include Chief Bappeda / Secretary/Head of Division, Head of Department /Secretary of Agriculture and Foodstuffs, the Head of Agency/Department of Finance and Asset Management Region/Head of Division, Head of Revenue and Bureau Chief /Director of Finance at the provincial and district levels. Besides the primary data, secondary data is also collected from various reports (the Memorandum of Local

Government Finance, Ministry of Finance, World Bank, BPS, SKPD) and other publications related to the the purpose of analysis. Meanwhile, qualitative primary data includes ; local financial management as supporting data to sharpen the analysis of causing factors in the trend of revenue and expenditure patterns. Observation period of the analysis carried out for 6 (six) years (2005 to 2011). Data collected for this period, especially fiscal data (budget), socio-economic and macro-regional sectoral data. For data analysis, and financial management of local issues more commonly used cross-section data. The analysis used a descriptive method includes : (i) calculate and analyze the absolute number or percentage of growth each year during the observation period, (ii) make a comparison with other districts in the province to obtain a picture of the relative position of the analyzed area, and (iii) calculate and analyze the contribution (share), for example, the agricultural sector's contribution to GDP.

III. Results and Discussion

3.1. Regional Economic Conditions

The allocation of South Sulawesi's GDP is characterized by the domination of household consumption (*konsumsi rumah tangga*) and government consumption (*konsumsi pemerintah*) as revealed in **Table 1**. During the period of 2005-2010, the GDP significantly allocated for household consumption and government consumption, while private consumption (*konsumsi swasta*) remains very low. This indicates that, GDP growth in South Sulawesi is still weak from the business sector side and entrepreneurship roles in creating technological innovation, efficiency and effectiveness. At the same time, Arsyad and Yusuf (2010) identified that, the Government Transfer-Source Income through GDP can be expected to pushing growth and reducing poverty in developing countries, including Indonesia.

GDP of South Sulawesi (**Table 2**) based on the district/city is characterized by sharp disparities between the capital of the province (Makassar) with the others district / city. During the period of 2005-2010, the GDP of Makassar reached 10 times higher than the average of districts GDP in South Sulawesi. Among the 23 other districts, East Luwu GDP approaching one third of Makassar GDP. This is, however, associated with the presence of PT. Inco in Eas Luwu. It is important to indicate that, Makassar is the center of economic activity in South Sulawesi. GDP per capita shows a relatively steady increase, but remained well below the national average. In 2006, income per capita of South Sulawesi recorded Rp 7.98 million and increased to Rp 12.63 million in 2009.

Table 1. GDP Constant Prices by Allocation in South Sulawesi 2005-2010 (Rp Billion).

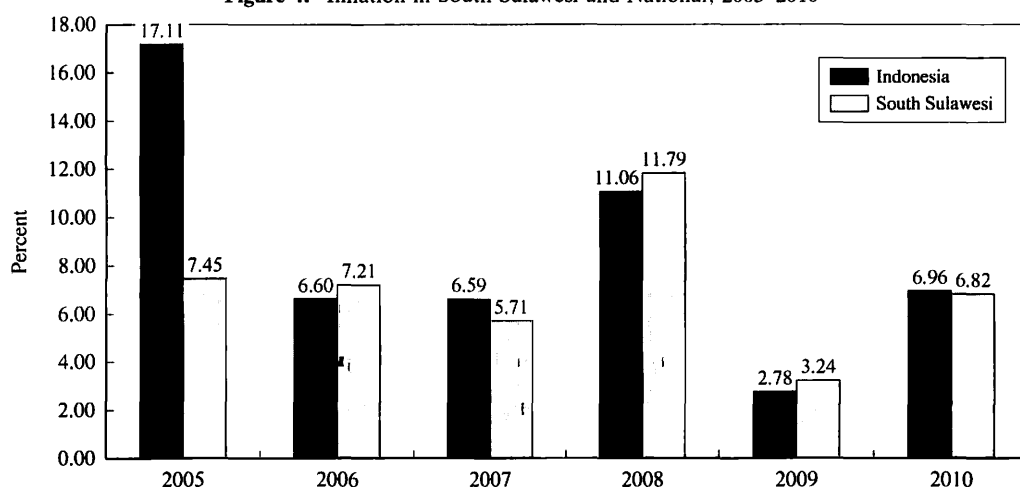
Nu	Items	2005	2006	2007	2008	2009	2010
1	Household Consumption	20.707.93	22.145.28	22.263.51	24.344.17	25.877.60	27.475.81
2	Private Consumption	222.64	236.58	259.66	274.58	316.43	341.38
3	Government and Defense consumption	5,427.12	5.834.15	6,075.87	6.740.98	7.087.11	7,466.20
4	Bruto Capital Formation	6.168.58	6.304.06	6.973.39	8.414.11	9.783.91	11.142.66
5	Stock	407.04	200.53	332.84	649.62	734.74	64.13
6	Exports (Foreign and among island)	15.019.83	15,629.99	19.988.89	19.706.96	15,656.04	23,535.45
7	Imports (Foreign and among island)	11.531.36	11.482.91	15,561.74	15.580.60	12.141.81	18.828.59
GDP		36.421.79	38,867.68	41.332.43	44.549.82	47,314.02	51.197.03

Sources : BPS

Table 2. South Sulawesi GDP Based on Constant Prices by District / City in South Sulawesi, 2005-2009 (Rp Billion)

Nu	District/city	2005	2006	2007	2008	2009	2010
1	Kep. Selayar	329.61	347.97	370.40	397.33	428.67	463.01
2	Bulukumba	1,271.22	1,352.30	1,424.82	1,539.67	1,639.31	1,742.03
3	Bantaeng	544.27	572.02	602.74	643.31	692.24	746.91
4	Jeneponto	688.89	716.24	745.30	788.38	810.78	891.01
5	Takalar	670.48	710.11	752.98	799.56	852.21	910.63
6	Gowa	1,369.10	1,453.59	1,543.57	1,650.32	1,782.16	1,890.03
7	Sinjai	796.69	845.35	891.29	957.71	1,024.92	1,086.67
8	Maros	879.89	918.01	960.02	1,013.91	1,077.48	1,153.18
9	Pangkep	1,857.73	1,967.63	2,088.10	2,237.50	2,369.77	2,519.98
10	Barru	550.22	577.19	605.71	647.99	665.03	726.21
11	Bone	2,305.16	2,442.41	2,589.30	2,776.66	2,985.22	3,213.09
12	Soppeng	894.32	953.61	1,004.85	1,082.81	1,156.50	1,207.98
13	Wajo	1,834.82	1,938.62	2,052.42	2,204.40	2,316.83	2,449.06
14	Sidrap	1,120.90	1,198.90	1,264.33	1,368.33	1,459.40	1,524.36
15	Pinrang	1,895.72	1,973.87	2,075.24	2,214.90	2,384.28	2,532.74
16	Enrekang	578.15	599.95	630.60	671.53	716.02	751.81
17	Luwu	1,257.71	1,326.99	1,400.34	1,480.67	1,581.66	1,691.51
18	Tana Toraja	1,005.45	1,057.92	1,114.50	587.42	623.23	662.32
19	Luwu Utara	1,076.47	1,158.34	1,237.40	1,356.83	1,447.49	1,533.36
20	Luwu Timur	4,018.28	4,293.87	4,540.57	4,429.72	4,250.55	4,936.91
21	Toraja Utara	—	—	—	607.12	641.94	686.87
22	Makassar	10,492.54	11,341.85	12,261.35	13,551.83	14,798.19	16,252.45
23	Pare Pare	532.39	569.46	609.22	655.26	707.23	767.16
24	Palopo	656.85	698.37	743.97	799.33	862.19	925.08
South Sulawesi		36,421.79	38,867.68	41,332.43	44,549.82	47,326.08	51,197.03

Sources : BPS

Figure 4. Inflation in South Sulawesi and National, 2005-2010

Sources : BPS

Figure 4 shows that, South Sulawesi's inflation is high with the major components of food and clothing prices. South Sulawesi's inflation fluctuated at relatively high at 7.45 percent (2005), 7.21 percent (2006), fell to 5.71 percent (2007), rose to 11.79 percent (2008), fell-back to 3.24 percent (2009), and rose again to 6.82 percent (2010). This rate does not vary much with the national inflation rate. From 2006 to 2010, inflation rate in South Sulawesi are sometimes below or above the national inflation rate by a thin considerable margin. The highest inflation-forming component of South Sulawesi is a food and clothing. This condition makes per capita income of the community is always correlated with the decreased purchasing power due to the high inflation.

South Sulawesi's investment conditions fluctuated but tends to increase in two years (**Table 3**). It is true that, there is a fluctuation in number of investors and investment value, but it is also true that both in the Domestic Investment (PMDN) and the Foreign Investment (PMA) has a trend of improvement in the last three years. The facts show that, economic sectors which absorb Domestic Investment (PMDN) are agriculture, animal husbandry, food industry, construction, transport and telecommunications, while absorbing PMA is agricultural, horticultural, food industry, wood industry, electricity, gas and water supply as well as buildings.

3.2. Human Development Condition

In absolute terms, South Sulawesi's HDI has increased significantly, and reached the category of the HDI "upper middle". Increasing HDI is a main vision of South Sulawesi year plan of 2008-2013. As revealed in **Figure 5**, South Sulawesi HDI has entered the

Table 3. Development of the Realizable Value of Domestic Investment (PMDN) and Foreign Invesement (PMA) in South Sulawesi, 2005-2010

Year	Domestic Investment (Rp 000)	Foreign Invesement (US \$)
2010	3,212,295,181	441,796,125
2009	1,137,863,414	76,982,850
2008	110,524,937	27,696,510
2007	244,670,640	141,430,870
2006	2,362,627,000	679,965,000
2005	940,544,000	53,558,000

Sources : BPS

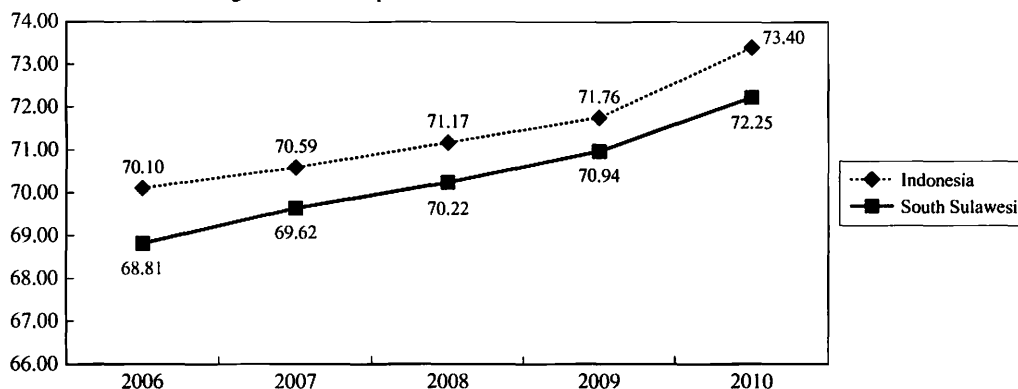
category (above the value of 70) in 2008, and in its development during 2006-2010 had increased by 3.44 point, which is the third highest increase nationally, after Lampung and West Papua. An interesting point is that, South Sulawesi has the highest HDI improvement in Indonesia during the 2008-2009 period.

Increasing the value of HDI in South Sulawesi Province during the period of 2006-2010 is due to several factors. First, economic growth in the province increased significantly and inflation rate relatively under control has prompted an increase in community purchasing power. Second, improvements in education, the literacy rate of population increased from 85.70 percent in 2006 to 87.65 percent in 2010; as well as the average number of old school increased from 7.0 years in 2006 to 7.53 years old in 2010. Third, improvements in the health services, where life expectancy rose from 69.2 years in 2006 to 70.8 years in 2010.

3.3. Development Planning, Budgeting Formulation and Regional Financial Management

It is important to remind that, a number of priority programs of regional development in Local Government Work Plan (called RKPD) are not budgeted in Income and Regional Expenditure (called APBD). In contrast, it was found that, a number of activities that are budgeted in APBD, but they are not programmed in RKPD. This especially happens in a number of districts that are inconsistent and undisciplined in running development plan and budgeting rules in legal regulations. This fact was found in a number of regions that experienced the dynamics of high political and social life, as a result, they can intervene in technical phases of the substance, regional development planning and budgeting. It implies that, all stakeholder in regional development planning should have the same understanding in the process of translating program into the preparation of local development budget. Financial Management of South Sulawesi Province has improved significantly in the last two years. Local Government Finance Report (called LKPD) experienced significant improvement, by obtaining "reasonable opinion with the exception" in 2009. Finally,

Figure 5. South Sulawesi's HDI Tends to Increase but Still Below National Average and Target are Still Gaps with RPJMD



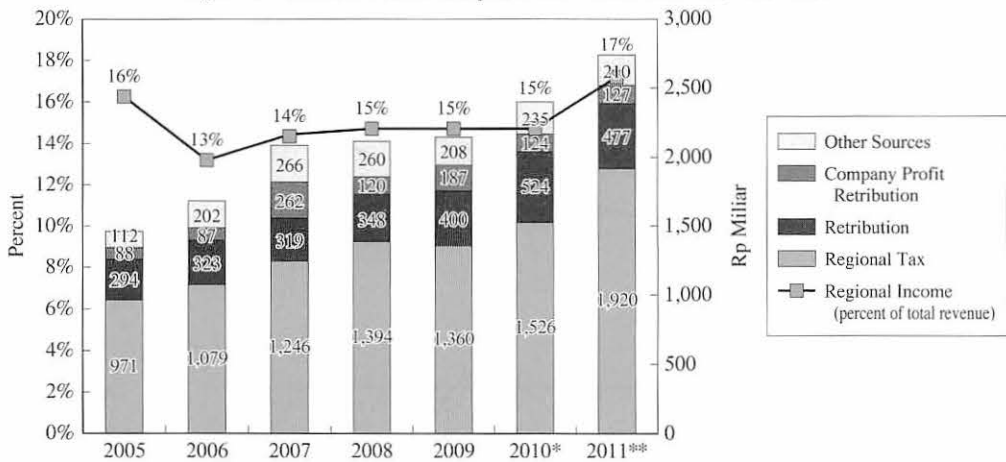
Sources : BPS and Menkokesra, UNDP

LKPD has successfully achieved the highest caste opinion by obtaining “reasonable opinion without exception (so called WTP)” in 2010.

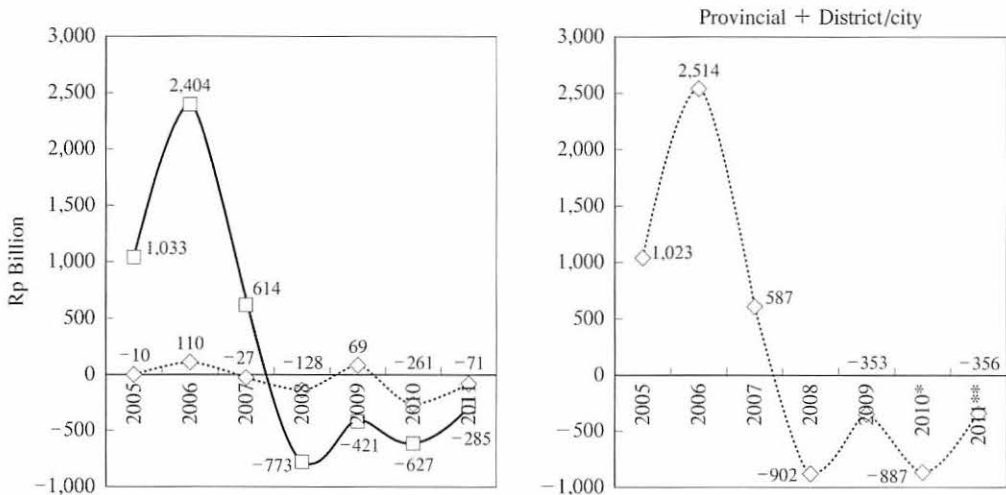
3.4. Income, Funding and Regional Expenditure

Regional Income (called PAD) of South Sulawesi (Provincial + District/City) in 2005–2010 increased almost doubled. In 2005, PAD of Rp. 1.465 billion increased to Rp. 2.409 billion in 2010. PAD have increased consistently since 2006 with a value of 13 percent to 15 percent in 2010 (15 percent on average during the period). Local tax revenue is the largest contributor to PAD (66 percent) in 2005 (also 2008), and 63 percent in 2010 and it is planned to reach by 70 percent in 2011. In absolute, local tax revenue increased of Rp 971 billion in 2005 to Rp 1526 billion in 2010. During the period of 2005–2010, the average share of local taxes to the total revenue by 64 percent per year. Income from regional retribution have increased significantly of Rp 294 billion in 2005 to Rp 524 billion in 2010 (19 percent per year on average) and is the second largest contributor to PAD after local tax (Figure 6). The remaining share (17 percent) was contributed by Legal Other Sources (including Regional Asset Management source) tends also to increase.

South Sulawesi has income surplus during the period of 2005–2007 and deficits in the period of 2008–2011 (Figure 7). The higher surplus revenues occurred in 2006 with the real value of Rp. 2.514 billion. Surplus revenue for the period of 2005–2007 occurred in all districts/cities. This indicates that, the government budget absorption is quite low. In the period of 2008–2011, the government of South Sulawesi had largest budget deficits of Rp 902 billion in 2008 to Rp 887 billion in 2010. A high rate of deficit occurred in 2008 primarily due to the lower of district/city government revenues (balance funding and PAD)

Figure 6. Local Revenue Composition of South Sulawesi, 2005-2011

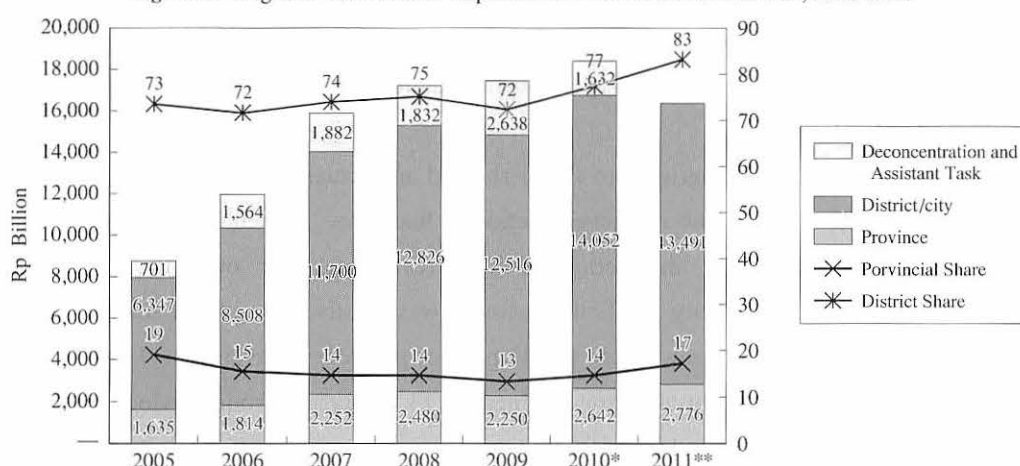
Sources : Adapted from APBD of South Sulawesi Province and District/City : 2005-2009, Actual APBD, 2010 Changes APBD, 2011 Main APBD

Figure 7. Income Surplus/Defisit in South Sulawesi, 2005-2011

Sources : Adapted from APBD of South Sulawesi Province and District/City : 2005-2009, Actual APBD, 2010 Changes APBD, 2011 Main APBD

in the province. At the the same time, the government spending has increased significantly.

As depicted in **Figure 8**, in the period of 2005-2010, total expenditures in South Sulawesi region (province and district/city, deconcentration and assistance task as well) increased more than doubled. In 2005, total expenditures of Rp. 8.683 billion, increased significantly to Rp 18.327 billion in 2010. Although the absolute of the local government expenditure increased every year, but the growth is quite fluctuation over the period of 2005-2010 (17.04 percent per year on average). The greatest growth occurred in 2006 of 36.90 percent and the lowest of 1.55 percent in 2009. The low growth in expenditures in

Figure 8. Regional Government Expenditure in South South Sulawesi, 2005–2011

Sources : Adapted from APBD of South Sulawesi Province and District/City : 2005–2009, Actual APBD, 2010 Changes APBD, 2011 Main APBD, Deconcentration, 2011

2009 was caused by a decrease in real expenditure at the provincial and district/city levels.

3.5. Agriculture Sector Analysis

Economic structure of South Sulawesi Province has been dominated by the agriculture sector (pertanian). The province has been functioning as a national food basket and the third largest shrimp and cocoa producers in Indonesia. Agricultural development policy of the period of 2008–2013 is “increasing agricultural production and rural agribusiness development”. The policy is operationalized in various sub-sectors of agriculture. In order to improve the welfare of community (generally), sustain national food security and improve the welfare of farmers (specifically), the government of South Sulawesi has programmed surplus of at least 2 million tons of rice, maize production of at least 1.5 million tons, 1.0 million cows, 340 thousand tons of cocoa, 33 thousand tons of shrimp, and increasing horticultural commodities production at least 5 percent per year until 2013. This indicates that, agriculture sector can be expected to push economic growth. Arsyad and Kawamura (2009 ; 2010) in their study for rural poverty also explain that, agricultural economic activity is still considerably important to reduce rural poverty.

3.5.1. Agriculture Sector Expenditure

During the period of 2005–2011 (as depicted in **Figure 9**), agricultural sector expenditure (provincial + district/city) in South Sulawesi increased more than doubled. The rate of increase in agriculture expenditure is relatively proportional to the rate of increase in total expenditures. As a result, the proportion of total expenditure on

agriculture sector expenditures tend to be constant. In 2005, the proportion of agriculture expenditure to the total region expenditure was 2.34 per cent and getting 3.15 percent in 2011. This proportion is, of course, much smaller than the other priority sectors such as health and infrastructure.

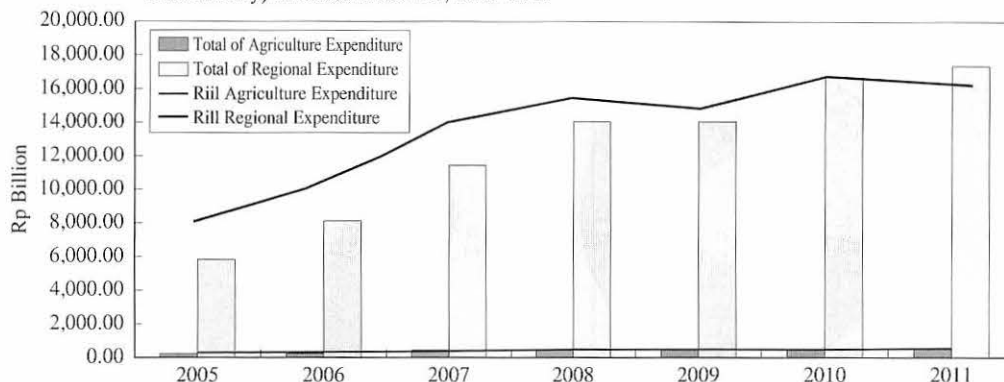
At the provincial level, agriculture sector showed an increase in expenditure relatively stable (**Figure 10**), while at the district/city tends to fluctuate. Agriculture expenditure at the provincial increased by an average 23.53 percent per year over the period of 2005–2011. For the district/city level, the increase was relatively stable in the period of 2005–2008 with a significant growth rate (40.40 percent per year on average). However (in 2009), expenditure in agricultural sector declined by 13.12 percent from previous year and relatively steady increase in subsequent years.

Figure 11 shows that, the composition of agricultural expenditure by economic classification is dominated by personnel expenditure (but with a decreasing trend). In 2005, the proportion of personnel expenditure to the total expenditure in agriculture reached 61.72 percent, and continued to decline by 51.50 percent in 2010. In contrast, during the same period, the proportion of capital expenditures to the total expenditures in agricultural sector showed an increase, even though it tends to fluctuate. Capital spending patterns is almost similar to goods and services spending, both in terms of number and proportion as well as an increasing trend.

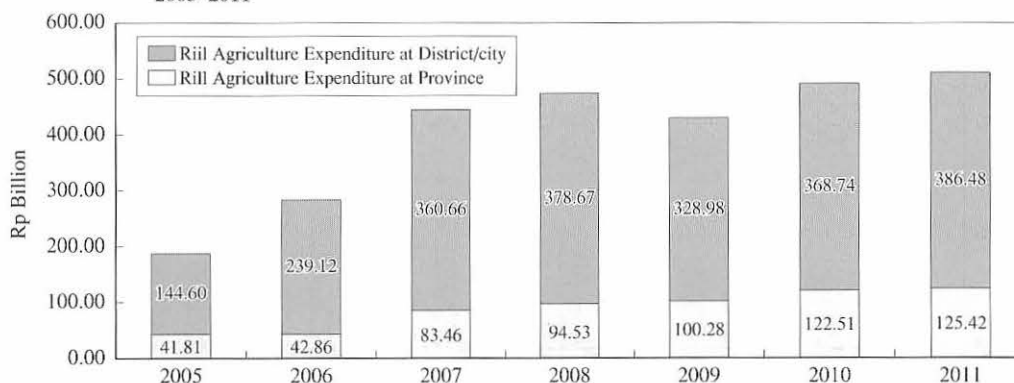
As depicted in **Figure 12**, proportion of agricultural expenditure in the districts/cities is relatively higher than the provincial level. At the district/city level, the proportion of personnel expenditure reached 52.75 percent, while for the province reached 47.72 percent. However, the proportion of capital expenditures at the district/city is much larger (29.10%) compared to the provincial level (11.63%). This fact indicates that the attention of the district/city to the development of agricultural sector is much larger than the province.

It is important to note that (see **Figure 13**), those districts that became the center of main commodities development allocates a larger agricultural sector spending compared to other regions. Agricultural expenditure in South Sulawesi varies between districts/cities. *Kabupaten* Sidrap (Sidrap District) had the highest agricultural expenditure as center of development in food crops, especially rice, and a number of estate commodities. Meanwhile, Palopo City allocates a relatively small number of agriculture sector spending.

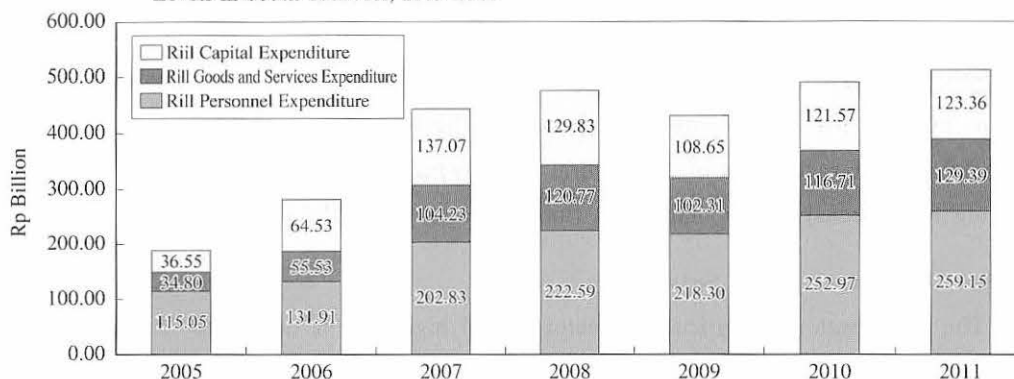
Composition of agricultural expenditure by economic classification varies widely between districts/cities (as depicted in **Figure 14**). Proportion of capital expenditure has sharp range between the districts/cities. *Kabupaten* Sidenreng Rappang (Sidrap District) for example, allocate only 30.48 percent for personnel spending to the total spending in

Figure 9. Total Expenditure in Agriculture Sector and Total Regional Expenditure (Provincial and District/City) in South Sulawesi, 2005-2011

Sources : Derived from "APBD Provinsi South Sulawesi dan Kab/Kota, 2005-2011 ; 2005-2009 APBD Realisasi, 2010 APBD Perubahan, 2011 APBD Pokok".

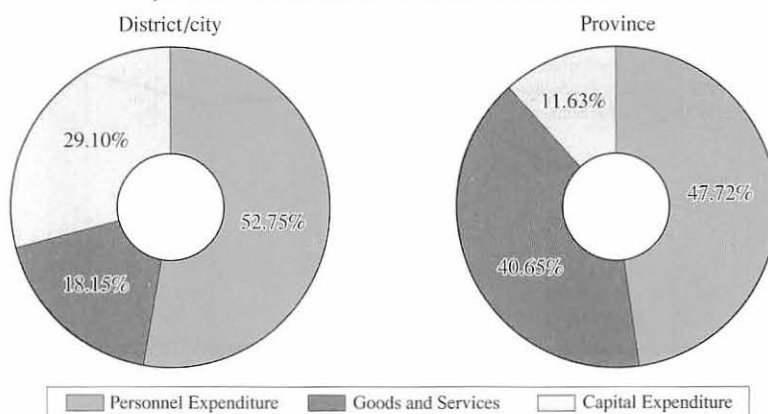
Figure 10. Total Expenditure in Agriculture Sector by Province and District/City in South Sulawesi, 2005-2011

Sources : Derived from "APBD Provinsi South Sulawesi dan Kab/Kota, 2005-2011 ; 2005-2009 APBD Realisasi, 2010 APBD Perubahan, 2011 APBD Pokok".

Figure 11. Agriculture Sector Expenditure by Economic Classification in Provincial and District/City Levels in South Sulawesi, 2005-2011

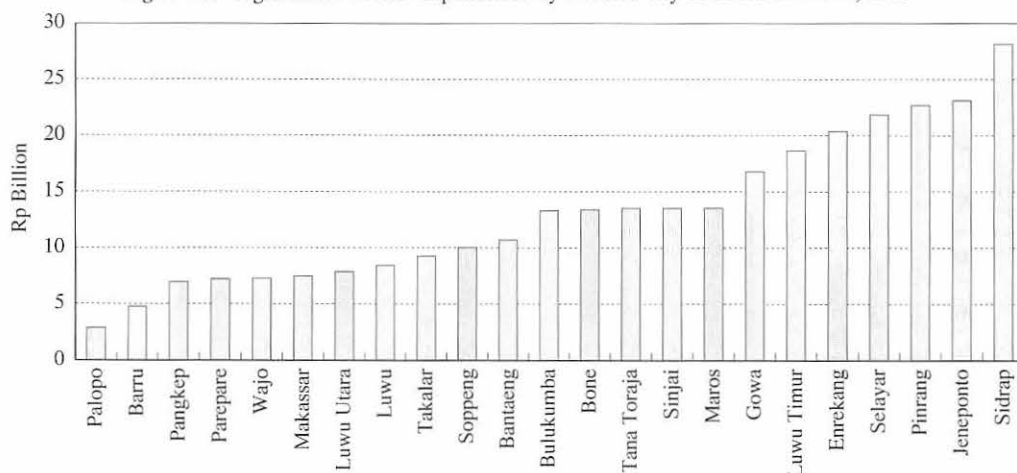
Sources : Derived from "APBD Provinsi South Sulawesi dan Kab/Kota, 2005-2011 ; 2005-2009 APBD Realisasi, 2010 APBD Perubahan, 2011 APBD Pokok".

Figure 12. Agriculture Sector Spending in Provincial and District/City Levels by Economic Classification in South Sulawesi, 2010.



Sources : Derived from "APBD Provinsi South Sulawesi dan Kab/Kota ; 2010 APBD Perubahan".

Figure 13. Agriculture Sector Expenditure by District/City in South Sulawesi, 2010



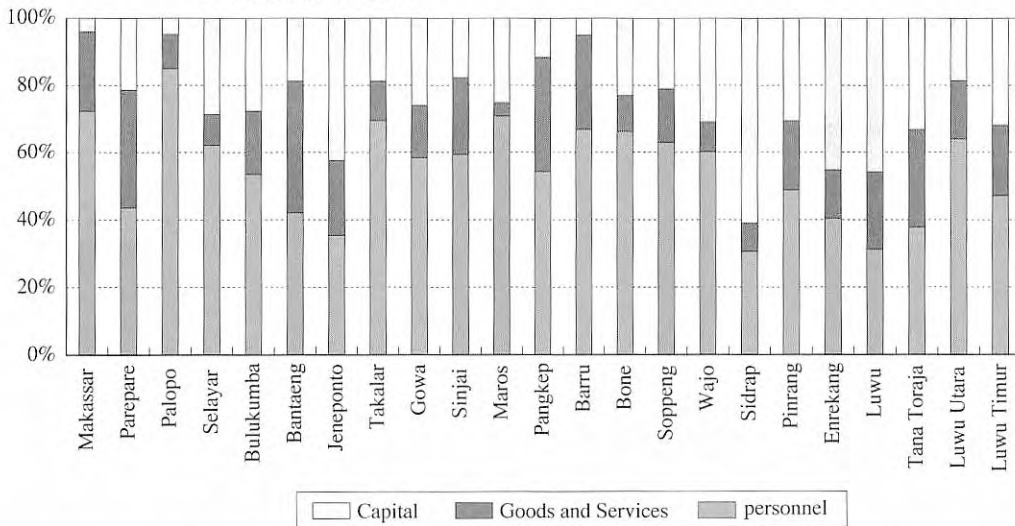
Sources : Derived from "APBD Perubahan 2010 Provinsi Sulawesi Selatan dan Kab/kota".

agriculture sector. In contrast, Palopo allocates by 85.69 percent. The same phenomenon happens in Makassar (small percentage in capital spending, only 3.58 percent, while Sidenreng Rappang allocates by 61.00 percent). The composition of this spending appears to match the characteristics of agricultural sector which is more developed in the districts (having rural areas) rather than cities (having urban areas).

3.5.2. Output in Agriculture Sector

The contribution of agriculture sector is still high, but it decreased in the last five years. Share of agriculture sector in GDP at constant prices of South Sulawesi has decreased from 34.72 percent in 2005 to only 31.45 percent in 2010. Even at current

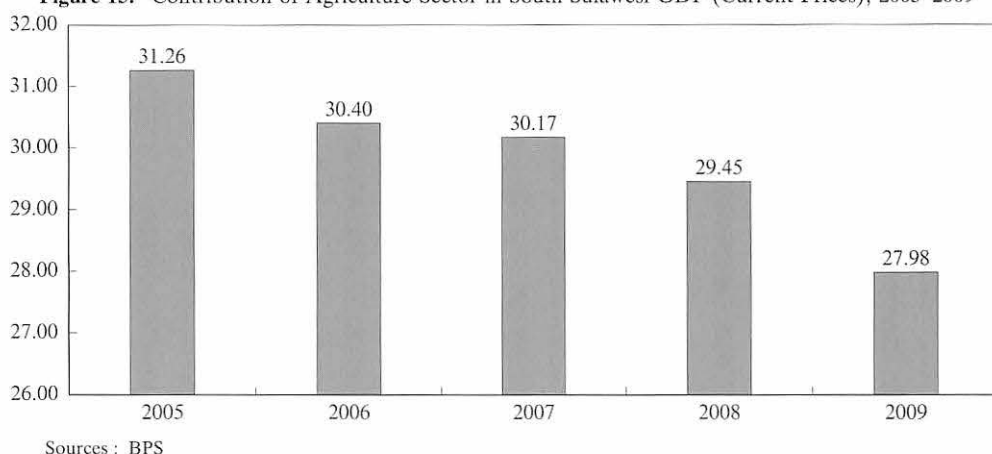
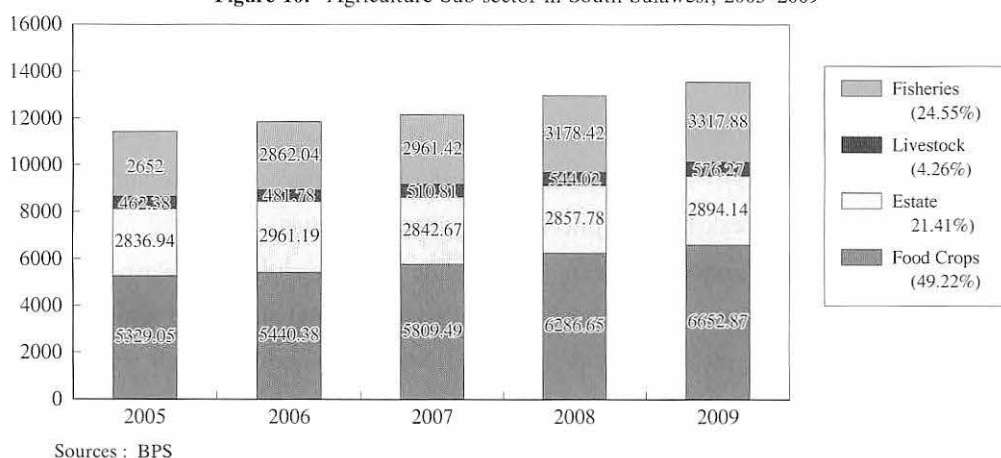
Figure 14. Agriculture Sector Expenditure by Economic Classification in the District/City of South Sulawesi, 2010



Sources : Derived from "APBD Perubahan 2010 Provinsi Sulawesi Selatan dan Kab/kota".

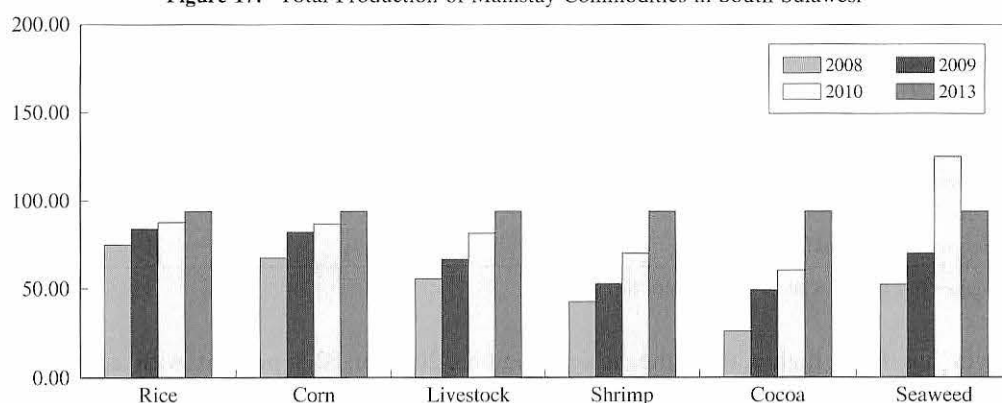
prices, share of agriculture sector decreased from 31.26 percent in 2005 to only 27.98 percent in 2009 (**Figure 15**). The decline in the share of agriculture sector at current prices is sharper, indicating a weak level of prices of agricultural products compared to the other product (industrial and services sectors). The decline was triggered by inelastic share of agricultural sector, where growth in the agricultural sector is lower than GDP growth in the same period. This generally happens in Indonesia, where economic growth is driven by financial sector than the real sector (especially those primary sectors, like agriculture). Growth in agriculture sector was the lowest before the mining sector. During the period of 2005-2010, the average economic growth was 6.43 percent, with a variation of 3.83 percent growth in agriculture, 1.5 percent in mining and quarrying, 6.08 percent in manufacturing sector, 9.41 percent in electricity, gas and water supply, 11.76 percent in construction and building, 9.68 percent in trade, hotels and restaurants, 9.92 percent in transportation and communications, 10.46 percent in finance, leasing and corporate services, and 7.57 percent in the other services sector.

An interesting point is that, share gap among sub-sectors still appear prominently in agricultural sector until 2009. **Figure 16** clearly shows that, contribution of food crops show the highest share (49.22 percent), whereas the share of livestock (4.26 percent) is still very low. Two other sub-sectors which contribute proportionally, i.e., the fisheries sector by 24.55 percent and the plantation sub-sector by 21.41 percent. The dominance of the role of food crops in South Sulawesi Province indicate that, the province has good advantage in food production, marine/fisheries and plantation sub-sectors. Advantage of

Figure 15. Contribution of Agriculture Sector in South Sulawesi GDP (Current Prices), 2005-2009**Figure 16.** Agriculture Sub-sector in South Sulawesi, 2005-2009

agricultural production in South Sulawesi has become a mainstay in international trade commodity, especially coffee, cocoa and shrimp.

In general, performance of agricultural sector in South Sulawesi is good enough. This can be proved by looking the progress of targeted commodities. Five out of six targeted commodities already achieved in 2011 or two years sooner than the expected time (2013). Production targeting of almost all commodities is reached in the third year of the planned development period (2008-2013) as depicted in **Figure 17**. Development of production in five best commodity at South Sulawesi Sulawesi is growing very rapidly and according to Arsyad (2008), Arsyad and Ali (2009) that, agriculture sector provides export earnings and it gives source of employment for millions of rural smallholders. Cocoa (*kakao*) production is also expected to achieve the target by 2013, because there are many plants that have no production yet, while the realization of production achieved was 57.33 percent in 2010.

Figure 17. Total Production of Mainstay Commodities in South Sulawesi

Sources : Derived from "Laporan Kinerja SKPD", Various series

Foodstuffs

Rice (*Beras*) production in South Sulawesi exceeds the society consumption (surplus). Grain production in 2010 (**Table 4**) was 4.38 million MDG (milled dry grain) or equivalent to 2.628 million tons of rice (60% of rice rendimen), the consumption of the population of South Sulawesi about 800 thousand tons, so a surplus achieved 1.828 million tons of rice. It was estimated that, around two million tons of rice surplus can be achieved by 2011 or two years sooner than planned. South Sulawesi surplus of two million tons is 20 percent of national rice surplus target of 10 million tons in 2014.

As also clearly depicted in **Table 4**, corn (*jagung*) production grew rapidly, exceeding the target set every year. Corn production in the third year was 1.4 million tons (based on production targeting), the remaining 100 thousand tons can still be achieved within the next two years with an increase in productivity through cultivation techniques and technology are getting better by the community.

Livestock

South Sulawesi is third largest beef producers in Indonesia. Cow production in South Sulawesi has reached 848,916 cows in 2010 (increase by 10.38 percent of 2009). Nationally, these achievements have positioned South Sulawesi as the third largest beef producers in Indonesia after East Java and Central Java. Target of one million cows in 2013 can be achieved through an increase in population growth.

Fishery

Shrimp (*udang*) production increased, but unfortunately, it was not following production targets set out in the last two years. Achievement of production in 2010 was 92.90 percent of the targeted (approximately 22,220.2 tons as showed in **Table 4**). The

Table 4. Production Targeting of Mainstay Commodities in 2013

Commodity	2008	2009	2010	2013/Target
Rice (000 tons)	4,083	4,324	4,380	4,667
Corn (000 tons)	1,195	1,394	1,400	1,500
Livestock (000 eattle)	703	769	899	1,000
Shrimp (tons)	17,333	17,829	22,200	30,300
Cocoa (000 tons)	112	164	172	300
Seaweed (000 tons)	747	824	1,518	1,000

Sources : "Laporan Kinerja dan Renstra SKPD"

growth has been higher than the achievement in 2009 of 82.9 percent with a target of 21,498 tons. In 2011, production target of 26,774 tons of shrimp through the efforts of Better Management Practices (BMP). This figure can be increased through the development of 228 farmers groups, which are scattered in 18 districts/cities by giving the aid packages in 2009 and 106 groups in 19 districts/cities with a 1,910 aid packages in 2010. Seaweed (*rumpu laut*) production also increased sharply in the last three years, exceeding 2013 production target. Seaweed production increased almost doubled from 2008 to 2010 (from 747,000 thousand in 2008 to 1,518 million tons in 2010).

Plantation

Table 4 clearly show that, cocoa (*kakao*) production rose slowly and was still far of production targets set. Cocoa production performance appears to be still low when compared to a target production of 300 thousand tons in 2013. Cocoa production amounted to 112 thousand tons in 2008, 164 thousand tons in 2009 and 172 thousand tons in 2010 (only about 57 percent of the target). This performance is expected to increase after the cocoa plant rejuvenation, so that the target of 300 thousand tons can be achieved in 2013 by developing total area of 270 thousand hectares. This is also supported by the National Movement for Cocoa Development through revitalization and rejuvenation of cocoa, cocoa industry cluster developed by provincial government in five districts of South Sulawesi (North Luwu, Palopo, Soppeng, Bulukumba and Pinrang), plus two clusters developed by the central government (National Development Planning Board, called Bappenas).

IV. Conclusion and Recommendations

Some principal conclusions include ; first, the agriculture sector is the mainstay sector of South Sulawesi Province, Indonesia. This is confirmed by the contribution of agriculture

sector as the highest share in GDP (regional economy indicator) and functioned as source of employment of rural community. In line with the contribution of the agricultural sector declined, slow growth and high dependence on labor, the government should make policy : (i) making commodity mapping in the development of synergistic policies among stakeholders in agriculture development ; (ii) increasing in added value by encouraging productivity of agricultural sector through diversification of products and post-harvest in more efficient, (iii) increasing public investment in agricultural sector ; second, agricultural sector expenditure increased sharply, but it is dominated by personnel expenditure, both at the provincial and district/municipal levels. A number of relevant policies should be considered : (i) creating a balance spending between personnel expenditure and capital expenditures, (ii) at the provincial level, agricultural sector capital expenditure should greater than the personnel expenditure, (iii) the allocation of expenditure goods and services in each sub-sector should be lower and transferred to the allocation of a larger capital expenditure, (iv) the allocation of capital expenditure should be in more production oriented, so that it can absorb in more labor with a high growth in both provincial and regency/city levels ; third, in general, agricultural production in each sub-sector showed a good performance and achievement in line with targets set in the year plan, particularly of those mainstay commodities. This needs to be maintained in the remaining two years of five-year period, with consistently implementing basic programs that have been established. Development towards increased value-added products should be able to be prioritized especially rice, corn, and cattle. Rice and corn should be developed in the form of quality improvement, creating organic products through integration with livestock, indicating more public expenditure in agriculture sector.

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