Germany as one of the largest agricultural producers in the European Union has faced several problems in the rural areas. Therefore, the government has set out a rural development policy in the Common Agricultural Policy (CAP) which covers four axes, namely improving the competitiveness of the agricultural and forestry sectors (axis 1), improving the environment and the countryside (axis 2), improving the quality of life in rural areas and encouraging diversification of the rural economy (axis 3), and building local capacity for employment and diversification (axis 4). Therefore, in this study, we give an overview of past and present reform of rural development policy, including the objectives, programmes, measures and fund allocations and analyze how governments determine different priorities on the axis among the regions. From the review, it is found that from the implementation of the rural development policy 2007-2013, Germany gives priority to the axis 2 with the greatest percentage of 42.71 percent (improving the environment and countryside), followed by the axis 1 with a percentage of 26.60 percent (improving the competitiveness of the agricultural and forestry sectors), then axis 3 with the percentage of 23.06 percent, and the last axis 4 with the percentage of 6.31 percent (building local capacity for employment and diversification - Leader).
I. INTRODUCTION

I.1. BACKGROUND

Germany is among the largest agricultural producers in the European Union. More than half of Germany’s territory, or almost 19 million hectares is used for farming. For detail, Germany is second only to France where animal produce is concerned and fourth, after France, Italy and Spain, where vegetable produce is concerned (Federal Ministry of Food, Agriculture, and Food Production, 2010).

Most of agricultural commodities comes from rural areas. According to the data from World Bank, rural areas in Germany covers the number of population of 21,294,200 or 26 per cent of overall population in 2007 until 2011. Even though, the share number of this sector relatively to the others is small, agriculture is the main driving machine in rural area. However, rural areas are very close to the problem of poverty, unemployment, less educated, smallholder farming, small scale production, less innovation and face difficulties access to market. Thus, rural area needs a motor, without locking the potentiality to enhance its development and competitiveness of agriculture.

All of these goals set out in the 2007-2013 Common Agricultural Policy (CAP) in rural development policy through four axes, namely improving the competitiveness of the agricultural and forestry sectors (axis 1), improving the environment and the countryside (axis 2), improving the quality of life in rural areas and encouraging diversification of the rural economy (axis 3), and building local capacity for employment and diversification (axis 4). However, this paper will only discuss the implementation of this policy on rural areas in Germany which including overview of the programmes, measures and how the government determine different priorities on the axis among the regions.

II. LITERATURE REVIEW

II.1. PAST REFORM OF THE SECOND PILLAR OF COMMON AGRICULTURAL POLICY (CAP)

Historical development of rural development policy can not be separated from the history of the development of the Common Agricultural Policy (CAP) itself. Since it was created in the beginning 1960s, this policy has undergone a lot of reforms as shown in the following figure.

Figure 1. CAP Development History

Source: European Commission (http://ec.europa.eu)
At the beginning of its emergence, the CAP aimed at encouraging better productivity in the food chain, ensuring fair standard of living to the agricultural community, market stabilization, ensuring the availability of food supplies to EU consumers at reasonable price, incentives to produce were provided through a system of high support prices to farmers, and combined with border protection and export support (European Commission, 2012). During the crisis years (1970-1980), attention focus on over production from the major farm commodities, exploding expenditure, international friction and structural measures (European Commission, 2012). During this period, there is Mansholt Plan, were initiated by the Commissioner Sicco Mansholt to redistribute the land from five million farmers to other farmers to increase the scale of their farm to be worth. However, this plan was rejected because it means lay off five million farmers whose lands should be transferred.

On 30 May 1980, the Council decided that structural changes needed to be made and gave the Commission a mandate to bring forward proposals of reform of the common policies (European Commission, 2012). In 1992, there is MacSharry reform which gave attention to reduce surpluses, environment, income stabilisation and budget stabilisation. This reform also introduced some compensatory measures of relevance to rural development which includes schemes for conservation of the environment, afforestation, and early retirement for farmers. Furthermore, the agenda of the 2000 CAP began formulating the economic, social, and environment in a set that includes deepening the reform process, building competitiveness and rural development. In this reform, rural development policy was introduced as a second pillar of the CAP. In the period 2000-2005, the high priority is given to agri-environment schemes and support for farming in less favoured areas. In agenda of CAP health check 2008 rural development policy provide a response to fighting and adjusting to climate change, managing water more carefully, providing and using renewable energy, conserving biodiversity, and pursuing innovation in all of these areas (European Commission, Directorate-General for Agriculture and Rural Development, 2009).

II.2. NEW REFORM OF THE SECOND PILLAR OF COMMON AGRICULTURAL POLICY (CAP) 2007-2013

II.2.1. ROGRAMMES AND MEASURES

The new reform of CAP 2007-2013 gives more attention to rural development policy by setting three core objectives, namely2:

1. Improving the competitiveness of the farm and forestry sector through support for restructuring, development and innovation

2. Improving the environment and the countryside through support for land management

3. Improving the quality of life in rural areas and encouraging diversification of economic activity

These three core objectives are derived into four new axes, namely3:

1. Improving the competitiveness of the agricultural and forestry sectors (axis 1)

2. Improving the environment and countryside (axis 2)

3. Improving the quality of life in rural areas and encouraging diversification of the rural economy (axis 3)

4. Building local capacity for employment and diversification (axis 4 – Leader)
In addition to setting the four axes, rural development policy also sets some new policy on its implementation, such as 1) implement a new single rural development fund, through the European Agriculture Fund for Rural Development (EAFRD) and also setting a single set of programming, financing, monitoring and auditing rules to simplify the delivery of the policy, 2) Strengthening the bottom-up approach, where member states, regions, and local action groups will have more chance to meet the programmes with local needs, 3) Introducing a new strategic approach for rural development with a clear focus on EU priorities and targeting the wider rural population (Hill, 2012). More specifically, the new rural development 2007-2013 includes purposes, measures, funding, EU co-financing rate, and the territorial application are shown in the table below.
Table 1. EU Rural Development Policy 2007-2013

| Objective Setting | EU Strategy National Strategy  
| RD Programmes |
|-------------------|-----------------|
| **Axis 1, Competitiveness** Measures | **Human Resources:**  
Vocational training and information actions  
Young farmers  
Early retirement  
Use of farm advisory services  
Setting up of farm management, relief and advisory and forestry advisory services  
**Physical Capital:**  
Farm/forestry/investments  
Processing/marketing/co-operation for innovation  
Agricultural/forestry infrastructure  
Restoring agricultural production potential  
**Quality of Agricultural Production and Products:**  
Meeting standards temporary support Food quality incentive scheme  
Food quality promotion  
**Transitional Measures:**  
Semi-subsistence  
Setting up producer groups  
Funding Share | Minimum 10 per cent  
EU Co-financing rate | Max 50/75 percent  
Territorial application | All rural areas |
|-------------------|-----------------|
| **Axis 2, Land Management** Measures | **Sustainable Use of Agricultural Land:**  
Mountain LFA  
Other areas with handicaps Natura 2000 agricultural areas  
Agri-environment/animal welfare (compulsory) Support for non-productive investments  
**Sustainable use of forestry land:**  
Afforestation (agricultural/non-agricultural land) Agroforestry  
Natura 2000 forest areas Forest environment  
Restoring forestry production potential  
Support for non-productive investments  
Baseline (agriculture) | Cross compliance  
Funding share | Minimum 25 per cent  
EU Co-financing rate | Max 55/80 per cent  
Territorial application | All rural areas |
|-------------------|-----------------|
| **Axis 3, Wider Rural Development** Measures | **Quality of Life:**  
Basic services for the rural economy and population (setting up and infrastructure)  
Renovation and development of villages Protection and conservation of the rural heritage  
**Economic Diversification:**  
Diversification to non-agricultural activities Support for micro-enterprises  
Encouragement of tourism activities  
Training Skills Acquisition and Animation:  
Training and information Skills acquisition, animation and implementation  
Funding share | Minimum 10 per cent  
EU Co-financing rate | Maximum 50/75 per cent  
Territorial application | All rural areas |
| Leader Axis Implementati on share | Leader approach for selected territories within the scope of the 3 thematic axes  
**Funding** | Minimum 5 per cent (2.5 per cent in new member states)  
EU Co-financing rate | Max 55/80 per cent  
Territorial application | All rural areas, selected territories |

*The first co-financing rate refers to all regions except convergence regions, the second co-financing rate is applied in the convergence regions

II.1.2. FINANCIAL ALLOCATION

In addition to the objectives and programs, other things that are important in rural development policy 2007-2013 is a financial allocation. There is a difference from previous years, which for the year 2007-2013, the rural development policy will be funded by a single source, namely the European Agricultural Fund for Rural Development (EAFRD). More specifically, it can be seen in the table below.

### Table 2. Community Funding for Rural Development

<table>
<thead>
<tr>
<th>Year</th>
<th>EU-15</th>
<th>Cyprus &amp; Malta</th>
<th>Other NIMS</th>
<th>Bulgaria &amp; Romania</th>
<th>Croatia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2003</td>
<td>Outside objective I: EAGGF Guarantee for all measures (excl. Leader+)</td>
<td>Outside objective I: TRDI</td>
<td>Outside objective I: SAPARD</td>
<td>SAPARD*</td>
<td>IPARD*</td>
</tr>
<tr>
<td>2004-2006</td>
<td>Outside objective I: EAGGF Guarantee</td>
<td>Outside objective I: TRDI</td>
<td>Outside objective I: SAPARD</td>
<td>SAPARD*</td>
<td>IPARD*</td>
</tr>
<tr>
<td>2007-2013</td>
<td>Outside objective I: EAGGF Guidance</td>
<td>Outside objective I: EAGGF Guidance</td>
<td>Outside objective I: TRDI</td>
<td>EAFRD</td>
<td>IPARD</td>
</tr>
</tbody>
</table>


Explanation: 2000-2006: Leader+ (programmes/measures) are funded everywhere by EAGGF guidance
* SAPARD in Croatia started from 2005

Furthermore, the allocation of funds allocated from 2007 to 2013 shown in the table below.

### Table 3. Financial Framework in Rural Development 2007-2013 (in EU Million Current Prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural Development a), c), d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>10902</td>
</tr>
<tr>
<td>2008</td>
<td>13303</td>
</tr>
<tr>
<td>2009</td>
<td>14002</td>
</tr>
<tr>
<td>2010</td>
<td>14364</td>
</tr>
<tr>
<td>2011</td>
<td>14436</td>
</tr>
<tr>
<td>2012</td>
<td>14617</td>
</tr>
<tr>
<td>2013</td>
<td>14817</td>
</tr>
</tbody>
</table>

Explaination:

a. After reprogramming of rural development (EUR 1 469 Mio)

c. After transfer into rural development of the lower expected expenditure resulting from the reforms of the tobacco, cotton, and wine CMO’s and from the compulsory and voluntary modulation (UK), art 136 regulation 73/2009 and reduction due to financing of the EERP (D 237/2010 EU)

d. Including the reinforcement of Rural Development by EUR 1 020 million included in the European Economic Recovery Package, of which EUR 600 million is financed in 2009 within heading 2 while, for 2010, EUR 420 million had been allocated to rural development on the basis of commission decision 2000/636/EC.

The financial allocation among the four thematic axes are set in by a minimum of 10 per cent of each country’s national budget has to be spent on axis 1, 25 per cent on axis 2, and 10 per cent on axis 3. However, the budget shares is determined based on various measure according to choices at the member states (Lataste et.al 2011). Then, the member states will get the funds by submitting suitable programmes and projects and making their own share of the financing available.4 The EU co-financing rate is a maximum of 50 per cent (75 per cent in convergence regions) for axis 1 and 3, and 55 per cent (80 per cent in convergence regions) for axis 2. Then, EU-15 has to spent a minimum of 5 per cent on LEADER (axis 4) (Hill, 2012).

In the states level, each member have their own judgement to allocate the fund according to their particular conditions. For instance, England and Wales are not choose the measures of introducing schemes for early retirement of elderly farmers and assistance to young farmers. For the EU as a whole, most of the budget and national contributions in the period 2007-2013 are given to the axis 2 by 49 per cent, then followed by axis 1 by 33 per cent, axis 3 by 12 per cent and axis 4 by 6 per cent as shown in the figures below.

Figure 3. Planned Spending from EU and National Budgets

III. RESULTS AND DISCUSSION

III.1. GERMANY PROFILE

Germany is a member of European Union, with size 357,000 km² and population in 2007 is 82.31 millions inhabitants (density: 231 inhabitants/ km²). Most of the territory is covered by rural areas with number 80 per cent and about 40 per cent of the population live in these areas. This high percentage number make the rural development policy is very important in Germany. The population working in agriculture is however better educated and has a better productivity than the EU-27 in average, and is also more engaged in other activities, but there is still an important need of targeted investments in agriculture. More than 53 per cent of the total surface area in Germany is used as agricultural land. However the number overall is decreasing. Data from Federal
Statistics Office shown that the number of agricultural area per capita and percentage of workforce is decreasing from 1900 until 2008. Although the number has decreased, but agriculture still dominates the economic movement in rural areas.

Table 4. Key Economic Figures in Germany 1900-2008

<table>
<thead>
<tr>
<th>Key Figure</th>
<th>Unit</th>
<th>1900</th>
<th>1950</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural area per capita</td>
<td>Ha/cap.</td>
<td>0.63</td>
<td>0.29</td>
<td>0.21</td>
</tr>
<tr>
<td>Percentage of workforce</td>
<td>Percent</td>
<td>38.2</td>
<td>24.3</td>
<td>2.1</td>
</tr>
</tbody>
</table>


III.2. RURAL DEFINITION IN GERMANY

There are some different definitions of rural area in Germany. A classification of administrative districts (Landkreise) provided by the Federal Office for Building and Regional Planning (Bundesamt für Bauwesen und Raumordnung, BBR) differentiates nine regional types and classifies four of them as rural areas:

1. Rural areas in agglomerated regions (< 150 inhabitants per square km) (type 4)
2. Rural areas in urbanized regions (< 150 inhabitants per square km) (type 7)
3. Rural areas in rural regions with a relatively high population density (>100 inhabitants per square km) (type 8)
4. Rural areas in rural regions with a low population density (less than 100 inhabitants per square km) (type 9).

A further very common typology is from the OECD, using the following criteria also related to population density:

1. A community (Kommune, Gemeinde) is classified as rural if the population density is below 150 inhabitants per square km.
2. A region is classified as predominantly rural if over 50 percent of the inhabitants are living in rural communities, as intermediate if between 15 and 50 percent of the communities are rural and as urban if less than 15 percent are rural.

Differences in the rural classification will result in differences in the allocation policy.

III.3. THE ORIGIN OF RURAL DEVELOPMENT POLICY IN GERMANY

Rural development policy in Germany began after World War II with a focus on increasing food production and infrastructure reconstruction. This is understandable, due to a very severe war damage, the rebuilding of infrastructure and food production to meet the country’s needs are considered very important. The same policy applied at every region in Germany. Social protection is very high, so that each area feel the same living conditions. After the great destruction after the world war, in 1955, Germany has successfully grown to be the country with the third largest economy in the world. In the 1960s and 1970s, the living conditions in rural areas are comparable to urban areas. This is due to high subsidies on agriculture and medium-sized enterprises.

However, in 1980 Germany faces slowing economic growth and stagnation. German reunification in 1990 resulted in a major problem in rural areas. Western and eastern German reunification led to numerous adjustments, and so did the agricultural sector. The restructuring of land ownership, technological adaptation and reduction of subsidies to be transferred to new areas resulted in an imbalance in the rural areas of West Germany and East Germany.
III.4. STRATEGIES AND ACTIONS

According to Financial budget allocation of rural development policy 2007-2013, Germany get the allocation of 9,079,695,055 euros or 9.44 per cent from the total budget 96,244,174,687 euros of all EU-27 member states. The comparison between Germany with the other member states is shown in the chart below.

Figure 5. Community support for rural development among EU Member States from 2007-2013 (in current prices in Euros)


From the figure above, can be seen that Germany is the second country after Poland which get the biggest fund allocation among EU member states for rural development 2007-2013.

III.5. FINANCIAL BUDGET ALLOCATION: HOW THE GOVERNMENT IN GERMANY DECIDE FINANCIAL ALLOCATION AMONG THE REGIONS?

The budget allocation for rural development policy in Germany is set at 26.60 per cent on axis 1 (Improving the competitiveness of the agricultural and forestry sectors), 42.71 per cent on axis 2 (Improving the environment and countryside), 23.06 per cent on axis 3 (Improving the quality of life in rural areas and encouraging diversification of the rural economy), and 6.31 per cent on axis 4 (Building local capacity for employment and diversification-Leader).

Figure 6. Financial Allocation among The Four Axes 2007-2013

The highest percentage is given on axis 2, because it is in line with the budget allocated to the EU level, where the axis 2 gets the highest portion for the period 2007-2013. Council Regulation (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) decide a minimum funding for each axis is 10 per cent for Axis 1, 25 per cent for Axis 2, 10 per cent for Axis 3 and 5 per cent for the Leader axis. 7. This fact because axis 2 contribute to three EU level priority areas biodiversity and preservation of high nature value farming and forestry systems, water and climate change.8 Germany share programs and funding allocation of rural development policy among the 14 regions with the following details.
Table 5. Financial Allocation among The Regions in Germany

<table>
<thead>
<tr>
<th>Regions</th>
<th>Funding Allocated to Each Axis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Axis 1</td>
</tr>
<tr>
<td>Baden-Württemberg</td>
<td>103 586 000</td>
</tr>
<tr>
<td>Rhineland-Palatinate</td>
<td>90 606 436</td>
</tr>
<tr>
<td>Thuringia</td>
<td>182 054 484</td>
</tr>
<tr>
<td>Bavaria</td>
<td>276 899 000</td>
</tr>
<tr>
<td>North-Rhine Westphalia</td>
<td>54 360 262</td>
</tr>
<tr>
<td>Saxony</td>
<td>199 630 342</td>
</tr>
<tr>
<td>Hessen</td>
<td>60 100 000</td>
</tr>
<tr>
<td>Brandenburg-Berlin</td>
<td>564 060 000</td>
</tr>
<tr>
<td>Hamburg</td>
<td>1 190 000</td>
</tr>
<tr>
<td>Lower Saxony-Bremen</td>
<td>538 612 008</td>
</tr>
<tr>
<td>Saarland</td>
<td>4 759 500</td>
</tr>
<tr>
<td>Mecklenburg-Western Pomerania</td>
<td>234 965 400</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>71 549 274</td>
</tr>
<tr>
<td>Saxony-Anhalt</td>
<td>236 391 499</td>
</tr>
</tbody>
</table>


Priority on each axis in Germany is different from one region to another. The priorities of the rural development programmes strongly depend on the context of the regions. The majority of the financial priority among the regions is given to axis 2. Meanwhile, on axis 1 there are only three regions were prioritized in this section, namely Brandenburg and Berlin, Hamburg and Lower Saxony and Bremen. The differences in the priorities among the regions are due to a number of factors: tradition, politics, financial resources (of the federal state provided through the GAK) and modulation. Then, we try to analyze the conditions of each region, with the priority on given axis. For instance, if we analyze two regions which get the highest priority in axis 1, then we will find that the two regions have structural characteristics and conditions that are different from other regions.

1. Lower Saxony and Bremen

Lower Saxony (Niedersachsen) and Bremen control 15 per cent of agricultural land in Germany. The majority of farms in this area is a large scale, with the average of land ownership is 50 ha. Nearly half of the farmers in these regions is a part-time profession. This means that agriculture is no longer a major sector for their livelihoods. However, most of the land surface is unfavorable geographical conditions of the agricultural sector; mountainous area (Lower Saxon Hills), coastal areas (North Sea) and heath land. The agricultural sector in this area needs of modernization in order to undertake agriculture holdings efficiently, with response to topography and distance to the market. Therefore, the highest priority is given in axis 1; modernization of agriculture.

2. Brandenburg and Berlin

Brandenburg is a region that surrounds Berlin, therefore in the map of financial distribution, they become one part. As much as 1.34 million ha of this area is used for agriculture, while Berlin is 4400 ha. The majority of the farm is a large-scale farming, with the amount of land and labor in the agricultural sector has declined since 2000. In addition, the soil in this area is relatively low fertile when compared with other regions in Germany. Therefore, the highest priority is given to axis 1. Then for comparison, we compare to the regions with the priority areas on the second and axis 3.

3. Bavaria

A half of Bavaria land is used for agriculture, but the average land ownership is very low compared to Germany as whole, that is 24.1 ha. The number of fulltime farmers are dominated, as many as 51.3 per cent in 2010. Organic
farming gets more attention in this area. 12 Data from the Bavarian State Minister for Food, Agriculture and Forestry (2012) showed an increase in both the number of companies and utilised agriculture area (UAA) in the Bavarian from 2001 to 2010.

Figure 7. Organic Farming Development in Bavarian 2001-2010

[Graph showing increase in number of holdings and utilised agriculture area (UAA) from 2001 to 2010]

Source: Bavarian State Ministry of Food, Agriculture and Forestry, 2012

From the figure above we can see that in 2010, the number of organic farming mastery increased by three times. This show that there are high demand for agricultural products that are environmentally friendly.

Furthermore, there are high animal husbandry mastery in this region. In 2011, a total of 28.3 million cattle were kept on 56.174 holdings and 3.65 million pigs were kept on 17.379 holdings. This amount is more than horticulture holdings which were 33,000 holdings. Meat and milk products dominated the export about 14.7 per cent of whole.13 However, animal husbandry at large-scale can cause pollution impact. According to the FAO Livestock Policy Briefs, there are some pollution caused by livestock, namely release of ammonia, methane and other gases into the air, contamination of soil and water resources with pathogens, buildups of excess nutrients and heavy metal in the soil, leaching of nitrates and pathogens into groundwater, threatening drinking water supplies, and eutrophication of surface water, as nitrogen, phosphorus and other nutrients. Based on its agriculture condition, the highest priority is given to the axis 2, the environment, nature protection and landscape conservation.

4. Mecklenburg and Western Pomerania

This area is one of the areas with the lowest economic conditions and the highest unemployment rate in Germany. In 2006, regional GDP is one third lower than in Germany as a whole and the unemployment rate 1.4 percent higher than in other regions. However, the advantages of this region lies in its geographical location, which is directly adjacent to the Baltic Sea in the north making it as one of the tourist destinations in Germany. Therefore based on the condition, the highest priority is given to the axis 3 with respects to develop tourism potentials and to improve the quality of live in the rural area.

III.6. CO-FINANCING

Germany determines rural development policy plan programmes based on the state level. The process which the financing of rural development decided are shown below.

Figure 8. The Management and Financial Phases of Rural Development Policy in Germany

[Diagram showing the management and financial phases of rural development policy in Germany]

Source: OECD. 2007
From the figure above, we can see that the fund comes from the states covering about 40% of total fund and transferred to Regional Payment Authority. Then, this payment is broken down as final beneficiaries of the aid on the basis of project approval by the management authority. This phases are similar in different states in Germany (OECD, 2007).

One of the problems due to co-financing in Germany is the financial capacity among the German states to support rural development varies each other. Some states in the east and north face difficulties to fully benefit from financial support provided by EU due to inability for co-financing, whereas states in the south and middle (including Bavaria, Baden-Wuttemberg, and Hesse) enlarge the existing programmes with regionally financed measures (OECD, 2007).

**IV. CONCLUSION**

The rural development policy in Germany has had a long history since World War II ended and reformed as part of the EU common agricultural policy. In implementing the rural development policy 2007-2013, Germany gives priority to the axis 2 with the greatest percentage of 42.71 percent (improving the environment and countryside), followed by the axis 1 with a percentage of 26.60 percent (improving the competitiveness of the agricultural and forestry sectors), then axis 3 with the percentage of 23.06 percent, and the last axis 4 with the percentage of 6.31 percent (building local capacity for employment and diversification - Leader). The highest percentage is given on axis 2, because this strategy is in line with the budget allocated by the EU level, where the axis 2 gets the highest portion for the period 2007-2013. This percentage is then divided by different priorities in 14 regions in Germany. The priorities of the rural development programmes and financial allocation strongly depend on the context of the region. However, the majority of the financial priority among the regions is given to the axis 2.
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