After the German reunification the agricultural development of eastern territories seemed to have picked up its pace. Yet the main problems those territories are facing today hatched already in the mid-1990s. In our study we address the problems and challenges that hinder sustainable development of East German rural areas. We analyse agricultural statistics and describe the structure of agricultural enterprises, land-use, and other critical dimensions of agriculture. We discuss pros and cons of modern rural areas spatial planning policy and take a critical look at the current status of rural areas. We also put forward a number of concrete proposals aimed at the development of the area and counteracting the negative trends it is now experiencing. Even taking into account all ‘positive’ development trends that are postulated to have occurred since the unification, we underline the crucial necessity of diversification of labour forces and of changing the spatial planning policies in the rural areas of East Germany.

**Key words:** East Germany, rural areas, agriculture, spatial planning, central areas.

Our interest in studying the modern challenges of rural East Germany (former DDR) is twofold: on the one hand, it is always fascinating to look at the process of transfer from plan to market economy, on the other hand, the history and development of the rural areas and agriculture in East Germany are very similar to those of our own Kaliningrad region. Much like it was done in the USSR, starting with the early 1970s, the rural areas of East Germany underwent the process of optimization of rural population distribution [12; 13]. We base our research on the assumption that contemporary rural development processes in new German territories have a lot in common with similar developments in Russia and, particularly, in the Kaliningrad region. Historical, cultural,
social and economic conditions of distribution of rural population until 1945, DDR’s subsequent adoption of Soviet methods of rural settlement planning and construction led to the appearance of striking similarities in transformational processes in the rural areas of East Germany and the Kaliningrad region that started in the 1990s [8]. We must also note that until very recently rural area had been taking a prominent position in spatial planning of both the USSR and the DDR, and modern Germany is currently engulfed in a very heated public discussion of agricultural development [3–5; 11].

The transformational shifts that began in the early 1990s revealed a number of structural issues with the management of rural areas in the east of Germany [1; 2; 14]. By the middle of the 1990s, however, many experts had the impression that the post-unification decline in production output had finally stopped and was replaced by new, more positive development trends. While significant municipal budget cuts, decreases in federal financing of rural areas, and shutting down of a number of employment projects call for reassessment of previous optimistic claims, quite a few researchers still believe that East German agriculture finds itself in a very favourable economic situation. According to them, the sheer size of some agricultural enterprises gives hope for the whole industry, which is not only described as merely competitive in relation to the West German agriculture, but even as ‘more productive’ in a number of sectors.

Modern Trends of Agricultural Development

Looking at the entire German GDP from 1991 to 2009, one can see that the share of agriculture, forestry and fishery decreased in both east and west of the country: it halved in East Germany, dropping in numbers from 2.2% to 1.1% of all-German GDP, and declined from 1.3% to 0.8% in the West Germany [15]. The eastern industry is yet to see better times, and against this background agriculture presents itself as a strong and all-important sector of economy, although it is not free of some regional variations. In the traditionally agricultural state of Mecklenburg-Western Pomerania, for example, the share of agricultural output is bigger than in the rest of Germany or even in the rest of the German east (1.1 ban Euro, or 3.9% of gross regional product in 2009) [16]. At the same time, former DDR lands are lagging behind in GVA per hectare, which is an important index of economic activity of a region. The national average is 1,100 Euro/hectare, but for the five eastern states the regional added value output remains in the range from 590 (Mecklenburg-Western Pomerania) to 800 Euro/hectare (Saxony) [6].

Structurally, the agricultural enterprises are mostly represented by private ventures: private farmers account for 91% or all commercial agricultural units. While large-scale companies only make up for 2% of the firms working in the industry, they own 18% of farming land. Farmers who list

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1 The study was jointly conducted by the State Committee on Construction and Agriculture within the USSR Gosstroy, the Institute of Spatial Planning and Construction in Rural Areas, on the side of the Soviet Union; and by the DDR Building Academy in cooperation with the Institute for Agricultural Constructions (Institut für Landwirtschaftliche Bauten), on the DDR side.
‘agriculture’ as their primary occupation own a little less than half — 49% — of all farming land in Germany. (Fig. 1, b).

![Diagram of agricultural enterprises in Germany in 2010](image)

**Fig. 1. Structure of agricultural enterprises in Germany in 2010:**

- **a** — farming units, 300,600 un.; **b** — farming land, 16.8 mln hectares [15]

After the reunification Germany made an unfortunate attempt of reprivatization, and it is still curbing the possibilities for large-scale capitalization of agriculture. In 2007 the traditionally agricultural state of Mecklenburg-Western Pomerania had only 5,432 farming units, while the traditionally industrial North Rhine-Westphalia had 47,511 farms. The size of farming land is almost the same in both regions (1,355,800 hectares in Mecklenburg-Western Pomerania vs. 1,503,200 hectares in North Rhine-Westphalia), but the number of people working in agriculture is 5 times bigger in the latter region. In other words, eastern lands are still very much the domain of large commercial farming units. In the state of Saxony-Anhalt, for example, 43% of all farms own more than 100 hectares each, in Mecklenburg-Western Pomerania — 42%, in Brandenburg — 31%, in Thuringia — 24%, and in Saxony — 18%. In contrast, among the western states only Schleswig-Holstein had a comparable number of large-scale farms — 17.5% [6]. In East Germany, on the other hand, large-scale farming units own up to 90% of all farming land (Fig. 2).

The sector of small and medium farms in the east of the country is small and insignificant, and the structure of land ownership resembles that of the Late Feudalism (only in reverse). The number of individual farmers is declining: in 2007 and 2010 their numbers dropped by 11% and 5% accordingly. The number of cooperatives, on the other hand, increased by 15%, and it is becoming very difficult for individual farmers to secure business succession (Table 1).
Regional development

Fig. 2. The share of farms owning more than 100 hectares against all available farming land in a region (2007) [15]

Table 1

<table>
<thead>
<tr>
<th>Germany</th>
<th>Total N of farms</th>
<th>Farms owned by individuals who are 45 or older</th>
<th>Farms with no successors (or succession is pending)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ppl</td>
<td>%</td>
<td>Ppl</td>
</tr>
<tr>
<td>West</td>
<td>271 100</td>
<td>174 100</td>
<td>69.5</td>
</tr>
<tr>
<td>East</td>
<td>24 500</td>
<td>12 600</td>
<td>70.63</td>
</tr>
</tbody>
</table>

Profits made by the eastern farming units are generally higher than the national average, but it is mainly due to target subsidies from Brussels and the bigger total farming area. In the period from 2007—2008 the three eastern states reported income indices that were much higher than the country’s 50,000 Euro average: Mecklenburg-Western Pomerania grossed 94,000 Euro, Saxony-Anhalt — 92,000 and Thuringia — 64,000. The four western states, due to the predominantly small-scale farming came up with the numbers that were actually lower than the national average for that time period (North Rheine-Westphalia, Hessen, Bavaria and Baden-Württemberg).

Another relevant index is the labour usage rate per hectare of farming land. The national average is 51 workers per each thousand hectares [9]. Almost all western states produced numbers higher than the national average, meaning that in the east the agriculture makes do with less workforce (Fig. 3).
Another notable trend is a decrease in the number of people permanently employed in agriculture in the former DDR. To illustrate this trend, we have compared the change in numbers of permanently employed in two regions with farming land of comparable sizes, North Rhine-Westphalia and Mecklenburg-Western Pomerania (Fig. 4).

As we can see, the number of people employed in the primary sector in Mecklenburg reduced by more than half during the first five post-reunification years. At the same time, starting with 2003, the number of people employed in agriculture in North Rhine-Westphalia started increasing, while the situation in the east froze and remained unchanged. It is thus not surprising that the people, especially youngsters, are fleeing from the rural areas — the
countryside is no longer connected to the land, has no ownership of it, and, most importantly, does not give any hope for successful application of one’s skills in farming.

One of the characteristic features of EU agricultural policy is providing with target grants and subsidies for the companies whose primary line of business is agriculture. The size of such grants has recently been tied to the area of the farming land this company is responsible for, so it is clear that most of the EU subsidies have been directed at supporting the eastern part of the country. In 2007—2008 an average farm in Mecklenburg-Western Pomerania would receive up to 98,000 Euro of financial support, in Brandenburg this sum totalled 67,500 Euro, in Hessen — 28,600 Euro (national average) [15].

The grants and subsidies received by certain types of farming units can reach even more generous amounts (Table 2).

<table>
<thead>
<tr>
<th>Company</th>
<th>Sum of grant, EURO</th>
<th>N of workers</th>
<th>Farming area, hectares</th>
<th>N of workers per hectare</th>
<th>Sum of grant per worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stadtgut Berlin SÜD Vierling KG</td>
<td>2 274 330</td>
<td>78</td>
<td>5 700</td>
<td>1.4</td>
<td>29 158</td>
</tr>
<tr>
<td>2. Landwirtschaft Golzow GmbH</td>
<td>2 059 119</td>
<td>100</td>
<td>6 800</td>
<td>1.5</td>
<td>20 591</td>
</tr>
<tr>
<td>3. Agrarprodukte Diedlow GmbH</td>
<td>1 615 546</td>
<td>118</td>
<td>3 811</td>
<td>3.1</td>
<td>13 691</td>
</tr>
<tr>
<td>4. Agrargenossenschaft Neuzelle eG</td>
<td>1 581 188</td>
<td>120</td>
<td>5 700</td>
<td>2.1</td>
<td>13 176</td>
</tr>
<tr>
<td>5. Agrargenossenschaft Müllberg eG</td>
<td>1 559 230</td>
<td>120</td>
<td>6 000</td>
<td>2.0</td>
<td>12 993</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75. AGRO Tierzucht und Pflanzenproduktion GmbH</td>
<td>620 758</td>
<td>72</td>
<td>5 000</td>
<td>1.4</td>
<td>8 621</td>
</tr>
</tbody>
</table>

In Mecklenburg-Western Pomerania large-scale agricultural companies with more than 300 hectares each received an average of 688,212 Euro in grants and subsidies in 2007—2008 (a total of 1,324 companies) meaning that the EU share in the profit reported by the large farms of the east of the country can be as high as 18—24%, while in the west this number rarely goes over 7 or 9%. In this situation, the farms are interested to increase their territories not because they want to produce more, but because they are then eligible for hefty financial support.

In the first few post-reunification years, the agriculture of East Germany attracted quite a lot of investments, yet after 1994 the investors became less enthusiastic. 2003 was a moderately good investment year, but the numbers were still low compared to the reports from the west of the country. The na-
tional average is 480 Euro per each hectare of farming land. The areas that attract the most money are Rhineland-Palatinate (695 Eur/hectare), Bavaria (590 Eur/hectare) and North Rhine — Westphalia (580 Eur/hectare), the latter being especially attractive because of its wine-producing specialization. The eastern farms with their impressive masses of farming land are not doing well in comparison: Saxony-Anhalt reports 360 Eur/hectare, Thuringia — 310, Mecklenburg-Western Pomerania — 285, and Brandenburg — a meager 270 Euro of investments per hectare. Despite all financial support from the European Union, the relative investment indices are still quite low in East Germany.

East Germany has more than a third of all farming land in the nation, yet it ‘produces’ only a quarter of the national added value in agriculture. And this is not the only negative trend: ‘green’ farms are seriously underrepresented in the east, and the share of eastern part of Germany in producing labour-intensive crops (e.g., potato-growing) is extremely low (Fig. 5).

Yet another trend of rural area development in East Germany is the strengthening of tourism industry by reallocation of resources from agriculture. In Saxony and Mecklenburg-Western Pomerania in 1999 and in 2005 tourism showed better added value results than agriculture. In Thuringia the two industries go back to back, and it is only in Saxony-Anhalt where agriculture still has a priority. If we add trade and transportation industries into the equation, the outlook for agriculture will be quite grim.

Overall, agriculture is not in the most favourable situation in East Germany, and it is rapidly losing its position as the driving economic force of the region.

Fig. 5. Agriculture in Germany in 2009 [15]
Common Spatial Planning Paradigm for Rural Areas

Germany is a developed federal state, and as such, it manages its spatial planning at a number of different levels. The states have the right to solve acute problems of spatial planning on their territory, in both urban and rural areas. Each state develops its own strategic plans for a pre-determined period of time, and there are separate administrative bodies with the regional ministries who have this responsibility. In Saxony, for example, spatial planning is overseen by the Ministry of the Internal. In Bavaria it is the Ministry of Economy, Infrastructure, Transport and Technology that puts together five-year development plans and publishes the results (the latest report, for 2003—2007, came out in July 2009).

Below is an example of the main goals for spatial planning set by the Territorial Development department of the Ministry of Energy, Infrastructure and Territorial Development of Mecklenburg-Western Pomerania:

— strengthening small and large urban and rural settlements as development centres;
— enhancing of transportation network, increasing accessibility to all areas of the state;
— environmental protection and full utilization of natural capacity of the region [7].

The body responsible for drawing up general national spatial development plans is the Institute of Construction, Urban and Territorial Planning (Bundesinstitut für Bau-, Stadt- und Raumforschung), a subsidiary of the Federal Agency of Construction and Spatial Planning. Every five years the Institute prepares a spatial planning report (Raumordnungsbericht), which puts forward strategic directions for development. Following a discussion in Parliament and among the experts, the spatial planning solutions are published as the so-called ‘Models’ (Leitbilder) [10].

According to the strategy of development of rural areas, one of the main tools in achieving accessibility of goods and services is the creation of the network of ‘centres’, whose objects are the elements of infrastructure and supply (both commercial and cultural) and whose subject is the population (with its increase/decrease rates, employment levels, income rates, etc.). The Programme of Spatial Development of Mecklenburg-Western Pomerania tasks those centres with creating the necessary connections, stimulating economic growth of an area and assuring that the population of an area has access to cultural, educational, social, healthcare and recreational facilities [7]. It is important that in times of need some elements of this infrastructure can be removed, but the removal will only affect a very small area around the ‘centre’. Moreover, if such a necessity arises, the infrastructural element will only be shut down if the demand for its services is compensated by a neighbouring ‘center’. It is also possible for a center to cooperate with an adjacent center of the same level or higher if it can no longer support its area alone.

In rural areas, the lower-level (basic) centres form the framework of social and economic life, and the share of influence of each of these basic centres is established through practice.
The main task of territorial development is maintaining the structure of settlement through decentralized concentration of population to counteract depopulation. Promising population placement patterns should primarily be utilized to strengthen the ‘centres’. The main ‘centres’ and settlement agglomerates in areas with low population can still be saved by obligatory provision of life-supporting services and related infrastructure. According to the afore-mentioned programme, the only construction and development works that are performed outside the framework of the ‘centres’ should be private housing. Commercial construction should only be conducted in the centres that have the necessary infrastructural, labour, residential, cultural and recreational potential. It is also recommended that the production industrial units are also placed in those areas.

The type of municipal arrangement also influences the development of rural areas. Thus, in the east of the country, the local authorities are too small and/or financially constrained to implement strategies to counteract the decline in the importance of agriculture or the migration of labour forces, which, in turn, leads to further liquidation of key infrastructural elements. This triggers the desire to relocate even with those people who would like to stay where they are.

The old methods of linking the settlement pattern to the type of land use are no longer fully functional: a resident of one area can manage land use in another. This is especially true for larger agricultural companies or private investors, who hire people to manage land use on site.

The structure of eastern agriculture with its predominantly large farming units, a relic of the DDR, is no longer able to support the development of rural areas. Most of the agricultural enterprises of East Germany are regionally inefficient.

Despite the regional differences, there are certain trends of rural development that East Germany has in common with the Russian Federation:

— decrease in agricultural output in GDP and the loss by agriculture of its dominant economic status;
— changes in the structure of able-bodied population in the rural areas\(^2\);
— intensification of labour against the decrease in the number of employees;
— overrepresentation of large-scale agricultural enterprises with low added value output and with external subsidy-based financing;
— lack of investments into agriculture;
— mass depopulation, further decline in population numbers in already scarcely-populated areas;
— placement of main elements of infrastructure in the ‘centres’ and decay outside the ‘centres’;
— low efficiency of municipal and other administrative bodies.

It is the industry, not agriculture, that should be given top development and strategic priority along the coast, in suburban areas and in nation-wide

\(^2\) In Mecklenburg-Western Pomerania, for instance, tourism industry employs the most workers in the rural area: of all people living in the rural areas in 2007 23,600 worked in tourism and only 21,348 were employed by agricultural enterprises [9].
development corridors. Some of the areas reserved for agriculture and most of the unused lands should be assigned to the tourism industry. Along the coast and in environmentally sensitive areas agriculture should yield to tourism. It is recommended to ban the production of genetically modified crops, construction of large cattle farms or other polluting enterprises in these areas.

We also propose the following set of measures:
— urgent review of agricultural subsidies policy of the EU;
— strengthening the role of local authorities and introducing a communal optimization reform (not all municipalities are able to perform their communal responsibilities in full due to the lack of qualified employees);
— integration of agriculture into relevant spheres of regional economies (including tourism).

Small, medium and large farms who own the land, who have been able to establish themselves against the general migration trends, could support the development of an area by broadening the range of agricultural sectors they represent. The east, for example, could use the experience of such western lands as North Rhine-Westphalia or Rhineland-Palatinate and specialize in ‘green’ produce.

Those strategies should also be taken into account when selling or renting out farming land by the agency that is now responsible for land management in most of the ex-DDR — Society of Land Appraisal and Management (Bodenverwertungs- und -verwaltungs GmbH — BVVG). Right now the preferential treatment that the large agricultural enterprises have been enjoying seems to lead to extensive development rather than to intensive one, and, in perspective, to general decline.

Swapping subsidies and grants to cooperative agreements will help the management of large agricultural enterprises contribute to the development of surrounding rural area.

References


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