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Country Profiles Report **GERMANY**

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i) Parts of the country descriptions are extracted from: Copus, A. et.al. (2006): Study on Employment in Rural areas

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1. Introduction ⁱ

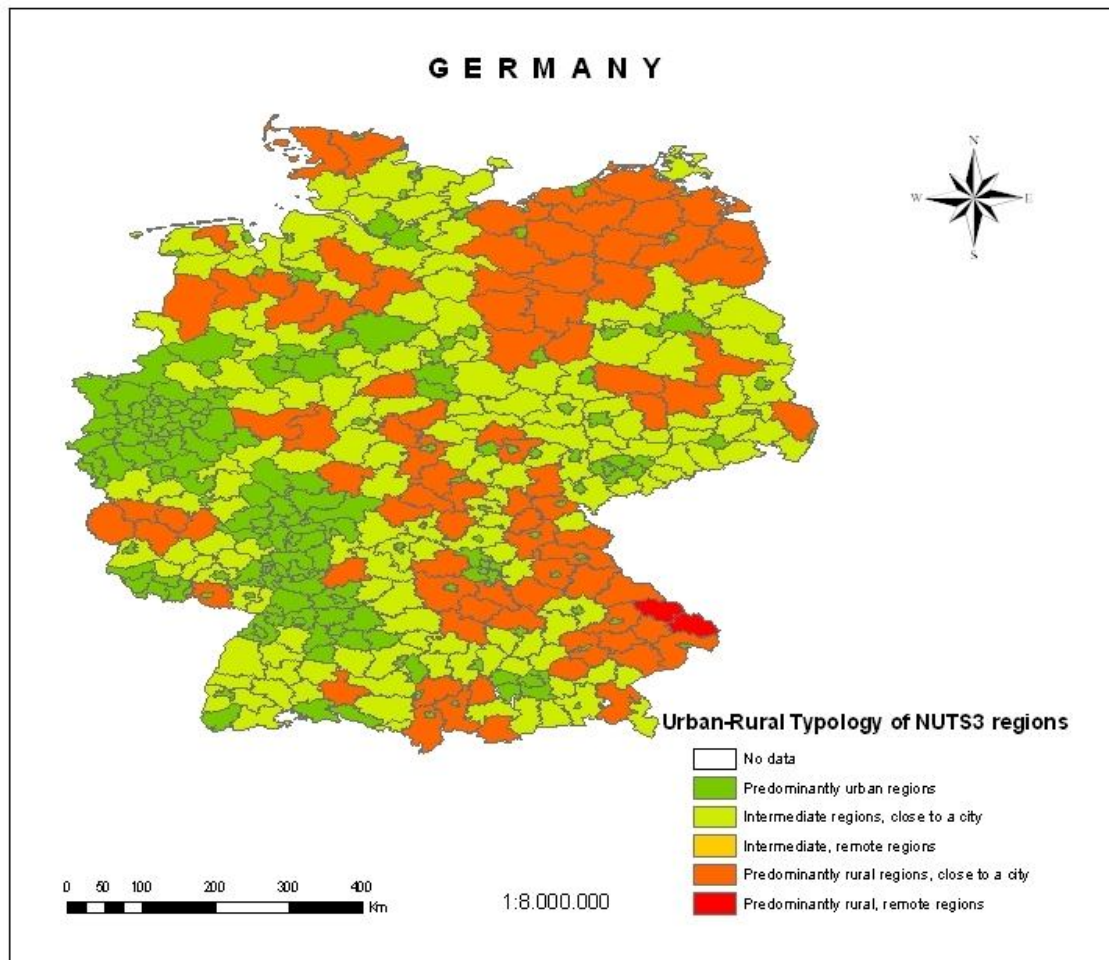
Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Key ideas/comments on the resulting DG Regio Typology (reasonable classification?, processes hindered?, degree of internal variation?, etc.)
- Basic comments on the main Drivers, Opportunities and Constraints affecting different typologies of regions in the country
- Basic comments on the implications of the three “Grand Narratives of Change” described by Mark Shucksmith in the rural areas of Germany (ref. document “Narratives of Change Affecting Rural Areas of Europe”)

Germany is one of the most densely populated countries in Europe resulting in a high share of Predominantly Urban Regions (PU) and Intermediate rural regions close to a city according to the DG Regio Poelmann classification. The PU regions equate to 20 % of the area with almost 60 % of the population. Most PU regions can be found in the Ruhr area as well as the Rhine-Main area. The Intermediate Regions, close to a city group is larger, accounting for more than one third of the regions, almost 45 % of the area and nearly 30 % of the total German population. It is striking that nearly the whole federal state of Mecklenburg-Western Pomerania is classified as Predominantly Rural Region, close to a city. According to the DG Regio Poelman classification only the two counties or NUTS 3 regions Regen and Freyung-Grafenau in the Bavarian Forest Area in the district of Lower Bavaria belong to the Predominantly Rural remote Regions. Altogether whilst in territorial terms Germany has a substantial “intermediate rural” component the population is substantial urban.

i) Parts of the country descriptions are extracted from: Copus, A. et.al. (2006): Study on Employment in Rural areas

Figure 5.1 DG Region modified Urban-rural typology of NUT3 regions: Germany



Source: own elaboration from http://ec.europa.eu/regional_policy/sources/docgener/focus/2008_01_rural.pdf

Germany has a peculiarity in the territorial breakdown of NUTS 3 regions. Most cities larger than 100.000 inhabitants form their own NUTS 3 region, which generally corresponds quite well to the area of the city. The surrounding rural “hinterland” often belongs to another independent NUTS 3 region and is characterized by lower population density. Therefore in contrast to other countries, urban and rural regions can easily be distinguished by means of population density. According to the German Federal Office for Building and Regional Planning, 30 % of population lived in core cities above 100.000 inhabitants, 27 % in rural districts and 34 % in densely populated districts in 2001.

In Germany, rural-urban differences in demographic, employment and infrastructure indicators, etc. are generally linked to the divergence between the Western part and the Eastern part, which was strongly affected by transformation processes since 1990.

2. Demography

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which are the main demographic processes in the country?
- Which are the features of the “natural growth”? (positive or negative growth, ageing process)
- Which are the features of migration processes? (dimensions, size, directions, prevalence, tradition, consequences on territorial model).
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

Especially during the 1990s the population increased in all categories mainly as a result of an average positive net-migration (at state level this is due solely to the international immigration of refugees, asylum seekers and so-called *Aussiedler*, i.e. ethnic Germans particularly from the former Soviet Union), whereas the natural population change was negative in all types of regions due to the low TFR, which is far below the reproduction rate. During the second half of the decade the population increase slowed down and especially PU regions experienced a population decrease. In contrast to all other types of regions the change in net-migration between 2001 and 2001 is negative in rural areas. So at present the dependency rate varies between 16.31 % and 17.29 % whereas the highest rates can be found in the PR regions followed by the IRA, PRA and PRR regions. But all in all the dependency rate is around the EU-27 average.

In relation to the demographic structure there is an ageing process shown both in the reduction of the population less than 15 years old, along to an increase of the group of more 64 years and over. This situation will become more severe in the future. This is especially true for rural regions and especially all groups of regions within the eastern part of Germany that experienced a drastic decrease of birth rates together with a still ongoing out-migration (particularly of well educated young [female] people) to the western federal states. Thus sparsely populated rural regions have unfavourable prospects concerning their demographic situation in particular. In the eastern federal states only the suburbs of large cities experienced a net population increase.

In all types of regions in Germany, the main percentage of population 15 years and over holds education levels for upper secondary and post-secondary non tertiary education (ISCED 3 to 4) (65 % on average, compared to 47 % EU 27-average) with the highest share in PRA followed by the IRA regions. Considering the total population over 15 years, 30 % of the population have an ISCED of 0 to 2 (pre-primary, primary and lower secondary education). Here the share is highest in PRA regions and lowest in IRA regions. Altogether 22 % of the German population 15 years and over has achieved ISCED levels from 5 to 6 (First stage of tertiary education not leading directly to an advanced research qualification, second stage of tertiary education, leading to an advanced research qualification). Within the regional groups these share is highest in PR regions and lowest in PRR regions.

All in all the percentage of adults still participating in education and training is with 7.1 % circa 1.5 % -points below the EU-27 average. All in all the percentage of people participating in measures of further education vary by 1.5 per cent between the different groups of regions. It is highest in PR regions (7.4%) and lowest in PRR regions (5.9 %)

Considering agricultural training it can be observed that the training of farmers is with approximately 67 % similar throughout all region groups. Only in PRA regions the percentage is a little bit lower. Compared to the EU-27 average the percentage of farmers with basic or full educational attainment is in Germany nearly twice as high (EU 27: 35.3 %; Germany 66,7 %).

Table 5.1 Demography indicators

DEMOGRAPHY		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+ MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
Census population 2001	% people aged 0 to 14 years	14.92	16.29		16.44	17.00	15.71	16.75	16.70
	% people aged 15 to 64 years	67.80	67.09		67.09	66.69	67.40	66.62	66.65
	% people aged 64 years and over	17.29	16.63		16.47	16.31	16.89	16.53	16.55
	Age dependency rate	25.58	24.83		24.63	24.46	25.12	25.09	25.09
Population*	Population change 2001-2007 (Index pop. 2001=100)	86.69	86.33		86.01	88.66	86.43	96.58	96.31
	% pop. 0_14_2007	16.06	15.77		15.36	17.42	15.83	16.68	15.97
	% pop. 15_64_2007	76.31	76.34		76.79	75.70	76.42	69.75	70.18
	% pop. >64_2007	7.62	7.88		7.85	6.89	7.76	13.56	13.84
	Age dependency rate	31.08	31.06		30.31	32.10	30.92	44.08	43.17
	Natural increase change_01_06	-59.28	-45.37		-40.87	NA	-46.75	-5.99	-6.09
	Net migration change_01_06	-107.55	42.83		192.72	NA	64.14	7.09	8.97
Education	% ISCED 0_2**	31.41	29.28		29.47	35.68	30.28	33.63	36.66
	% ISCED 3_4**	63.97	65.25		65.46	63.34	64.72	43.29	47.14
	% ISCED 5_6**	21.94	22.76		21.98	18.10	22.22	17.03	18.55
	% of farmers with basic or full educational attainment	66.99	66.57		66.50	66.20	66.74	35.34	39.55
	Life-Long Learning in Rural Areas	7.43	7.15		6.68	5.93	7.17	7.69	8.61

*Values NUT3 are replaced by values NUTS2

**% ISCED by groups are calculated for population more 15 years.

3. Employment

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Main processes and trends in relation to the labour market (employment/unemployment, disadvantaged groups and territories). Explanatory reasons
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

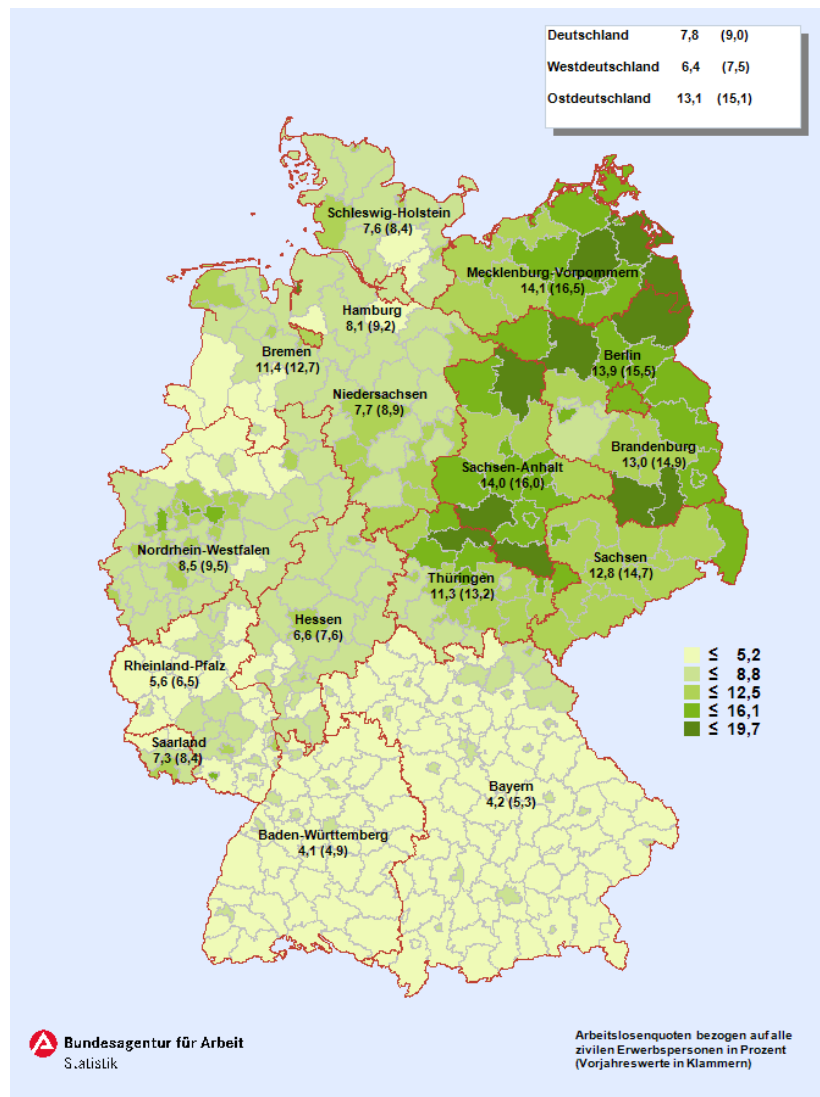
Over half of Germany's workforce is based in urban regions. The development of employment in the western federal states during the 1970s and 1980s was characterised by the catching up of peripheral rural regions, which benefited from the relocation of industrial activities. It appears, that since the second half of the 1990s this process no longer occurs and near suburban areas had the most positive development. In the eastern federal states the job loss was huge in the first years of transition and was biggest in urban areas. However, since the second half of the 1990s urban agglomerations had on average the lowest decrease in employment whereas the overall employment decrease still continued. All in all the average employment rate of the active workforce (15 to 64 years) in Germany is with 69.9 % slightly above the EU-27 average. There are no significant differences between PU, IRA and PRA regions. A comparison of the male and female employment rate shows that the female rate is considerable lower throughout all groups. The youth employment rate (15 to 24 years) is on average 4.7 % and lies 7 % -points above the EU-27 average. Again the youth employment rate is highest in PRR regions and lowest in PU regions. All in all the female youth employment rate lies throughout all groups of regions slightly below the male one.

The average unemployment rate is with 8.9 % quite high and lies 0.7 % -points above the EU-27 average. It is highest in PRA regions followed by IRA regions and lowest in PRR regions. All in all the female unemployment rate lies slightly above the male one throughout all regions. Considering the youth unemployment rate (11.9) it can be observed that, throughout all region groups it is considerably higher than the overall unemployment rate (8.9 %) but lower than the EU-27 average (15.6 %). It is nearly comparable in PU (11.9 %) and IRA (11.7 %), highest in PRA regions (12.5 %) and lowest in PRR regions (7 %). The map 1 depicting the situation in 2008 shows that the unemployment rate in the eastern federal states is with approximately 13 % nearly twice the number of the western federal states (7 %).¹ The map also reveals that there does not only exist an considerable east-west differentiation but also a lesser pronounced north south differentiation with the lowest unemployment rates in the southern parts of Germany.

Fig. 5.1: Unemployment rate in Germany in 2008 in %

1

<http://www.pub.arbeitsagentur.de/hst/services/statistik/000000/html/start/monat/Arbeitsmarktbericht-engl/2009/0109.pdf>



Source: http://www.pub.arbeitsamt.de/hst/services/statistik/000000/html/start/karten/aloq_kreis_jahr.html¹

The average long term unemployment rate is with 54 % significantly above the EU-27 average of 43 % and steadily increased between 2000 and 2007. It is lowest in the PRR regions and highest in the PRA regions.

Self employment is relatively less important in Germany, compared with the EU as a whole, and there is little difference between urban und rural regions.

The share of employment in agriculture is in Germany generally very low (3 %) compared with the EU-27 average (8 %). However it reaches a higher significance in the PRR (7 %) and PRA (6 %) regions.

The service sector is the most important employer in Germany. This is particularly true for PU regions followed by the IRA and PRA regions. It is slightly above the EU-27 average. The share of employment in the industrial sector is higher than in the PU regions in the PRR,PRA and IRA regions and is on average slightly above the EU-27 average.

Table 5.2 Employment indicators (a)

EMPLOYMENT		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS +LI+MK+ NO+TR	Average EU 27
Variables		1	21	22	31	32			
Employment rate*	T15_64 years	69.53	70.22		70.08	74.70	69.91	66.40	66.42
	Tmale 15_64 y	75.11	75.37		75.09	81.30	75.23	73.05	73.12
	Tfemale 15_64 y	63.87	64.98		64.92	67.80	64.49	59.72	59.70
	Total 15_24 y	45.26	46.95		48.49	56.70	46.56	39.66	39.67
	T 45_64 years	66.25	66.85		66.08	70.35	66.45	62.37	62.34
	Total 45_54	80.92	81.48		80.59	85.40	81.07	78.30	78.38
	Total 55_64	51.57	52.22		51.57	55.30	51.82	46.44	46.30
%Employment in principal sector	%Emp_primary	1.25	3.93		5.72	6.84	3.12	7.95	7.97
	%Emp_secondary	25.53	30.18		30.22	33.30	28.15	26.71	26.71
	%Emp_tertiary	73.21	65.89		64.06	59.86	68.72	65.33	65.31
Unemployment evolution 2002_05	Total > 15 years	136.10	119.59		136.07	119.85	130.31	187.25	188.17
	Total 15_24 years	416.84	429.80		429.85	123.08	422.32	255.25	257.16
	Total >25 years	66.71	73.60		83.54	119.07	72.58	82.27	82.21
	Male > 15 years	73.89	75.67		84.52	105.96	76.65	82.45	82.35
	Female > 15 years	93.93	107.09		111.97	137.93	102.08	94.74	94.79

* Values NUT3 are replaced by values NUTS2

Table 5.3 Employment indicators (b)

EMPLOYMENT		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS +LI+MK+ NO+TR	Average EU 27
Variables		1	21	22	31	32			
Unemployment rate 2007	Total >15	8.64	8.72		9.70	5.00	8.86	7.61	7.63
	Total Male >15	8.49	8.28		9.33	4.60	8.56	7.06	7.05
	Total Female >15	8.47	9.18		10.21	5.60	9.06	8.61	8.59
	Total 15_24	11.78	11.67		12.51	7.00	11.86	15.80	15.64
	Total >25	8.09	8.34		9.34	4.70	8.41	6.66	6.67
Long term unemployment*	% long term unemployment rate_07	53.87	53.80		54.40	47.51	53.92	43.07	43.12
	Evolution of long term unemployment2002_07	124.61	124.50		124.81	123.82	124.61	111.33	110.94

* Values NUT3 are replaced by values NUTS2

4. Rural business development²

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which are the features of the rural businesses (size, dominant activities, employment, profitability, innovation, use of IST, etc)?
- Which is the profile of the rural entrepreneur?
- Which are the niches of activity in which rural companies are being created?
- Which are the opportunity sectors for future rural business operation?
- Which are the main constraints that need to be overcome?
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in rural business promotion?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

An observation of the economic branches shows that there exist differences between rural and non rural areas due to employment in services and manufacturing. Concerning manufacturing of finished products the percentage of employed persons does not differ considerably between urban agglomerations and rural regions whereas in rural regions the percentage of people employed in manufacturing of basic materials and component parts is slightly higher. The production of food products and beverages has higher shares in rural regions than in urban agglomerations.

Considering the service sector the percentage of persons employed in financial businesses, real estate renting and business services is lower in rural regions than in urban areas.

The percentage of employed persons in wholesale is higher in rural regions close to urban agglomerations than in more remote peripheral rural regions. Concerning tourism the percentage of persons employed is higher in sparsely populated rural regions than in all other types of regions.

But the economic linkages that exist between agriculture and other sectors of employment that are quite important for rural regions is not revealed by these trends. For few economic branches that are stronger represented in rural areas domestic agrarian products play an important role as producer goods (19 % the food and tobacco industry, 3.7 % production of agrarian based products, 2.7 % wood, cork, and basketry products).

All in all between 1999 and 2004 the number of persons employed in agriculture, fisheries and mining decreased in rural regions whereas it increased in manufacturing. The employment in services did not change. In the other types of regions the share of employment in manufacturing decreased whereas it increased in the service sector.

The enterprise founding rate is an important indicator of the dynamic of the economy. All in all quite a considerable number of regions with high rates are rural regions. But those regions are mainly within the western federal states whereas the least positive regions according to a ranking conducted by the “Institut für Mittelstandsforschung in Bonn” could be found in the eastern federal states.

² Most of following information is extracted from the “OECD Prüfbericht zur Politik für ländliche Räume. Deutschland” (OECD: 2007;66-71)

Since 2004 the number of one-person-enterprises increased as a result of the German labour market policy that explicitly encouraged this development in order to integrate unemployed persons into the labour market. However the share of shutdown of this one-person-enterprises is relatively high. Besides, according to a study of the German Ministry for Food, Agriculture and Forestry conducted in 2006 in rural regions the number of micro enterprises with up to four employees increases whereas the employment in bigger enterprises is constant or decreasing depending on the single region.

In Germany the medium-sized businesses are quite important. But especially in peripheral rural regions these enterprises are disproportionately concentrated with regard to the share of inhabitants and of enterprises of these regions, which hinders innovation and growth.

Specialized jobs that require greater use of technology are allocated quite evenly throughout all groups of regions with a share of $\pm 11\%$.

Table 5.4 Rural business development indicators

RURAL BUSINESS DEVELOPMENT		PU	IRA	IR R	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
N° FIRMS BY SECTOR OF OPERATION (1_2 digits) 2006	% Mining and quarrying	0.45	0.53		0.86	0.43	0.56	0.30	0,30
	% Manufacturing	17.46	17.11		26.96	8.13	19.20	14.08	14,05
	% Electricity, gas and water supply	1.11	1.45		1.03	0.00	1.21	0.61	0,63
	%Construction	1.50	1.87		1.87	2.97	1.71	9.48	9,46
	%Wholesale and retail trade	0.00	0.00		0.00	0.00	0.00	23.02	21,83
	%Hotel and restaurants	0.00	0.00		0.00	0.00	0.00	6.52	6,15
	%Transport, storage and communication	11.33	11.93		10.87	14.23	11.46	8.69	8,46
	%Real state, renting and business activities	68.15	67.11		58.41	74.23	65.86	37.29	39,12
EMPLOYMENT BY SECTOR OF OPERATION (1_2 digits) 2006	% Mining and quarrying	0.51	0.40		0.32	0.33	0.43	0.58	0,52
	% Manufacturing	31.57	34.28		31.21	42.37	32.51	29.18	28,08
	% Electricity, gas and water supply	0.24	0.40		0.39	0.00	0.33	1.14	0,89
	%Construction	2.78	3.55		3.40	5.71	3.19	9.09	9,14
	%Wholesale and retail trade	28.30	28.62		32.74	23.28	29.28	26.14	26,93
	%Hotel and restaurants	7.98	8.18		11.71	7.85	8.80	8.27	8,37
	%Transport, storage and communication	9.03	6.93		5.72	6.22	7.61	8.65	8,52
	%Real state, renting and business activities	19.53	17.57		14.44	14.12	17.79	16.78	17,51
medium technologies manufacturing	Employment in high and medium tech manufacturing activities_2004_Media	11.67	11.19		10.21	15.62	11.23	6.88	7,42
	Employment in high and medium tech manufacturing activities_2004_%EU 25	173.31	162.43		147.98	237.61	164.68	95.89	107,13
%firms with own website		58,10	55.18		53.79	53.20	56.24	50.21	50,21

* Values NUT3 are replaced by values NUTS2

5. Rural-urban relationships

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Are there established or incipient initiatives for cooperation between urban and rural areas?
- Is the “territorial approach” developed? (ie. Territorial Employment Pacts, supra-municipal planning, etc.),
- are there rural-urban partnerships? If so, which are their goals and ways of operation? Where is the power located?
- Which is the importance/extent of suburbanisations processes?
- What are the main demands/uses over rural areas from urban inhabitants? How these are met?
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in promoting appropriate rural-urban relations?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

The territorial agenda that was passed by the EU Commission for Spatial Planning in May 2007 aims at a better accounting for the potentials and variety of cities and regions by the implementation of the Lisbon and Gothenburg strategies within Europe. The envisaged goal is to strengthen the economic and social cohesion of Europe's regions.

The application of a new understanding of planning that advocates the cooperation of communities, cities, greater urban areas and peripheral regions is seen as main precondition for success of this policy.

In Germany the new concepts of spatial development pick up this ideas and goals by developing the strategical approach of a “Großräumige Verantwortungsgemeinschaft” (large scale responsibility community) between cities, metropolitan areas and developing rural regions as well as peripheral structurally weak regions as a new innovative instrument of a spatial planning policy aiming at a balanced development³.

As a first step of implementing this strategy the Federal Ministry of Transport, Building and Urban Affairs together with the Federal Office for Building and Regional Planning began to initialize model-projects in seven selected regions (compare figure 1) to concretize this approach in an innovative way in order to derive strategies and measures for the future operationalization of the strategical approach in 2008.³

However, many rural stakeholders fear that mainly the metropolitan areas will benefit from the discussion on metropolitan regions and that rural regions will loose.

³ BBR, 2008 (http://www.bbr.bund.de/cln_007/nn_23558/BBSR/DE/FP/MORO/Forschungsfelder/UeberregionalePartnerschaften/01__Start.html)



Fig. 1: Model-project regions to test the “Großräumige Verantwortungs-gemeinschaft” approach (<http://www.raum-energie.de/typo3temp/pics/2dc0ad9274.jpg>)

Besides the building or strengthening of regional economic clusters is seen as one promising means to strengthen, respectively establishing rural-urban linkages as the subsidies mobilized for communal business development are steadily decreasing. Based on an analysis of already existing regional clusters or potential clusters, concepts of an extension of this clusters are developed and implemented as a means of communal business development. The idea behind this approach is that an strengthening of the overall regional economy will also strengthen the economic linkages between urban areas and their hinterland.

At a European scale, Germany is a densely populated country with a well developed traffic systems (This is also mirrored by the fact that there are only two NUTS 3 regions which are remote as defined by the DG Regio typology.). Therefore, the probably most important rural-urban linkages can be seen on the labour market where daily commuting across the NUTS regions is widespread. Indeed, for Germany, it is not appropriate to distinguish urban and rural labour markets based on NUTS boundaries. Labour market regions which take into account the commuting relations are more

suitable for labour economic analyses than administrative units such as administrative Districts, federal states, NUTS-2-regions etc. (Eckey et al. 2007).⁴

Another example of linkages across administrative borders including rural-urban linkages are the so-called “Zweckverbände”, i.e. [special purpose associations](#) of communes and cities e.g. in the field of waste and waste water, public traffic, spatial planning and community planning, etc.

⁴ Eckey, H.-F., Schwengler, B., Türck, M. (2007): Vergleich von deutschen Arbeitsmarktregionen, IAB Discussion Paper 3/2007, Nürnberg.

6. Cultural heritage

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which are the main cultural resources?
- Which are the main cultural resources of rural regions?
- Is cultural heritage used? If so, in which senses (ie. tourism, other economic activities, identity reference, education, other non profit uses?)
- Which are the main demands upon cultural heritage?
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in protecting/promoting sustainability of cultural heritage?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

“One of the central tasks of cultural policy is the protection and preservation of the built heritage, i. e. cultural monuments and man-made landscapes including architectural, archaeological and paleontological monuments as well as parks. At the Land level, monument protection legislation has been passed. In addition to their sovereign right to define their own tasks, the Länder also consider it their duty to preserve such monuments and provide funds for this purpose. Municipalities are also involved in monument conservation; as a general rule, they have been assigned specific roles in this domain. Despite the primary role of the Länder in monument conservation, a programme at the federal level has been operating since 1950 to promote monument conservation measures in order to preserve and restore immovable cultural monuments of national significance. This involves federal co-financing of those cultural monuments that are significant for Germany as a whole. Following re-unification, the Federal Government launched several monument conservation programmes to help meet the special needs for long overdue monument conservation work in Germany's eastern Länder. These programmes are co-financed by the Land involved. The federal and Länder authorities work together in the German National Committee for Monument Protection. Private sector activities in the area of monument conservation are of great importance. There are a substantial number of volunteer monument conservators in Germany who work hand in hand with the respective public authorities. Furthermore, private funding has become indispensable in this field. The German Foundation for the Protection of Monuments functions as a useful and effective link between public and private sector activities in this area. The Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) serves as the national clearinghouse for recommendations of monuments to the UNESCO World Heritage List. Whereas monument conservation measures are designed to preserve and safeguard immovable cultural assets and thus protect this part of the nation's cultural heritage, other cultural heritage protection measures serve to protect its movable cultural treasures. These, too, are at risk of deterioration and destruction. The greatest threat to the nation's movable cultural heritage is, however, the loss of specific treasures, especially through their sale abroad. The statutory basis for state protection against the export of cultural objects is the Act on the Protection of German Cultural Heritage against Removal Abroad. This legislation is in line with EU law, which - contrary to the generally prescribed free movement of goods within the EU internal market - expressly provides for such a restriction on trade and movement in the case of "cultural objects classified as national cultural treasures possessing artistic, historic or archaeological value". Protected from export are objects that have been entered by the Länder in their registers of cultural treasures and archives that possess national value. The vast majority of these objects are privately owned such as paintings, medieval books, musical instruments, archaeological objects or archives.

The Federal Commissioner for Cultural and Media Affairs (*BKM*) maintains a consolidated register of cultural treasures and archives possessing national value that is compiled from the Land registers and published in the Federal Gazette. The Commissioner is also responsible for deciding whether to permit the export of such objects. In order to safeguard national treasures, the Federal Government also assists the Länder and the municipalities in purchasing important objects when it is feared that they may be sold abroad⁵.

Germany has 33 natural or cultural heritage sites included in the UNESCO World Heritage List. Germany has not ratified the UNESCO treaty for the protection of the immaterial cultural heritage of 2006. The reasons are that the Conference of German Cultural Ministers has a problem with the nondistinctive definition of the subject of protection, the selection procedure and the unclear differentiation to other resolutions.

Germany has altogether 14 national parks with an overall area of 962048 ha which is 2.6 % of the country's territory. National parks are one means to protect greater natural areas that feature special natural characteristics worthy of protection according to the federal nature conservation act.

A lot of the major cultural heritage sites are centers of attraction for tourists and citizens alike. Especially well known cultural heritage sites in rural areas (as for example the castles of King Luis II in Bavaria) are an important pillar of the regional economy in this areas, as tourists spend their money in the regional economy and quite a view of the regional jobs are directly or indirectly related to tourism.

But all in all there are no significant differences between rural and urban areas concerning the cultural heritage.

⁵ Council of Europe/ERICarts-Compendium Cultural Policies and Trends in Europe, 2009 (<http://www.culturalpolicies.net/web/germany.php?aid=533>; day of extraction 8.4.09)

7. Services of General Interest

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which is the general situation of the services of general interest (SGI) in the country?
- Which are the main problems in relation to accessibility and provision to SGI for rural residents and visitors?
- Which are the main forms of provision of services in rural areas? Are there innovative solutions to low accessibility areas?
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in promoting accessibility/provision of Services of General Interest, particularly in rural areas?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

Accessibility and provision of services are conditioned by degree of rurality and remoteness. The densities of road and rail networks are slightly above the EU – 27 average. All in all the density is slightly higher in PU regions than in IRA, PRA and PRR regions. Again there exists an east-west differentiation. Although major roads were newly built since the reunification, especially in rural and remote rural regions of the eastern federal states the road density is below the German average. Accessibility by car is higher in predominantly urban regions (i.e travel time from each region to all others). Overall accessibility decreases with an increase in rurality. Accessibility times to market by different transport modes increases with rurality.

The number of beds in hospitals per head is with 6.23 on average higher than the EU-27 average (4,98). It decreases from 7,68 beds per head in PU regions to 5,3 in PRR regions, 4,84 in PRA regions and 4,46 in IRA regions. The density of hospitals is above the EU-average and it is highest in PU-regions and decreases drastically with an increase in rurality (PU: 14,41; PRR: 1,02. The driving time to the nearest hospital is on average significantly lower than the EU average. It is lowest in PU regions and highest in PRA regions. All in all the accessibility of hospitals is in general good because of the quite even regional distribution of ambulant health services. On average 99 % of the inhabitants of inner cities and 94 % of inhabitants of agglomerations can reach the next hospital in 15 minutes by car. But for people living in rural areas the percentage decreases to 80 % and for those living in sparsely populated regions even to 70 %.⁶ So, concerning the availability of medical services there exists a clear urban rural differentiation whereas all in all the availability of medical services is high in urban and low in peripheral remote rural regions. Especially for sparsely populated areas this is problematic as in those regions the availability of sufficient medical services is in deficit⁷. Generally the availability of health care services is better in the western federal states than the eastern federal states.⁷

The driving time to the nearest University is about 10 percent points below the EU-average. Here it is striking that it is nearly twice as high in PRA and PRR regions than in PU and IRA regions. The driving time to the nearest airport is also significantly below the EU-average. It is lowest in PU-regions and decreases with increasing rurality of the regions.

⁶ OECD (2007): OECD Prüfbericht zur Politik für ländliche Räume. Deutschland. P. 60

⁷ OECD (2007): OECD Prüfbericht zur Politik für ländliche Räume. Deutschland. P. 60

Table 5.5 Services of general interest indicators (a)

SERVICES OF GENERAL INTEREST		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
Density of motorways		0.09	0.03		0.02	NA	0.06	0.04	0.04
Density of trunk road		0.34	0.15		0.12	0.08	0.23	0.17	0.17
Density of railways		0.22	0.11		0.08	0.07	0.15	0.10	0.10
Area (km2)**		130208.20	272564.00		218079.70	1959.30	622811.20	5659749.80	4600910.40
DENSITY	Evolution density 2001_06	0.14	-0.41		-1.38	-1.15	-0.37	0.93	0.92
	Density of population 2006*	987.52	155.10		84.88	83.18	507.42	414.65	446.23
Daily population accessible by car		37558.69	28091.95		24516.50	16182.50	31490.33	18078.54	19285.23
Time to nearest hospital		5.17	14.59		25.70	17.41	12.58	22.83	22.83
Time to nearest university		23.06	36.36		50.69	50.34	33.30	45.10	45.10
Time to nearest airport		45.95	60.04		72.78	132.35	56.58	83.44	83.44
%households with broadband access		NA	NA		NA	NA	NA	49.07	48.00

% households with internet at home		NA	NA		NA	NA	NA	81.46	81.20
N° STUDENTS ISCED 0_6	N°students ISCED_0 per 1.000 inhabitants	NA	NA		NA	NA	NA	29.59	29.46
	N°students ISCED_1 per 1.000 inhabitants	NA	NA		NA	NA	NA	61.66	60.76
	N°students ISCED_2 per 1.000 inhabitants	NA	NA		NA	NA	NA	43.21	43.28
	N°students ISCED_3 per 1.000 inhabitants	NA	NA		NA	NA	NA	48.05	48.03
	N°students ISCED_4 per 1.000 inhabitants	NA	NA		NA	NA	NA	3.06	3.10
	N°students ISCED_5_6 per 1.000 inhabitants	NA	NA		NA	NA	NA	37.37	37.23

Table 5.6 Services of general interest indicators (b)

SERVICES OF GENERAL INTEREST		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
BEDS IN HOSPITAL PER 100.000 inhabitants*	N° of beds in hospitals per 100.000 inhabitants_05	867.26	860.33		918.65	905.70	875.28	696.91	704.88
	Evolution nbeds 2000_05	92.98	93.57		94.16	91.679	93.42	91.53	91.94
	Density of hospitals	14.41	1.68		1.02	1.02	8.44	5.44	5.44
	Hospital beds per head	7.68	4.46		4.84	5.33	6.23	4.98	4.98
	Doctors per inhabitant	NA	NA			NA	NA	171.35	171.35

*Values NUTS3 are replaced by values NUTS2

** The findings of these variables are the sum of values, not the average, as the others.

8. Farm structural change

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which are the main DOC in relation to agriculture?

- Are there specific policies/programs/initiatives that could be labeled as “best practices” in promoting agriculture?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

“Due to historical reasons, Germany is one of the European countries with the sharpest regional differences concerning the agricultural structure. Whereas the western part is dominated by a typical family farm structure, the eastern part is characterized by large post-socialist farm enterprises⁸”.

Nevertheless a more differentiated consideration reveals that from 1995 to 2003 there are negative overall growth rates in the western parts and zero or even positive growth rates in the eastern parts⁸. “The western part is divided into four different zones. In the very west the sharpest decline in terms of farm numbers can be observed, whereas moderate negative growth rates can be found in the southern and northern regions of Germany”⁸. Throughout all regions medium size farms (2 ESU to 100 ESU) prevail. Except for Saxony-Anhalt slightly positive growth rates can be observed for this group in the eastern federal states and negative ones for the western federal states”⁸. “Negative growth rates for large farms can only be observed in Schleswig-Holstein and North Rhine-Westphalia whereas annual growth rates of more than 3% occur in the states Brandenburg, Bavaria and Baden-Wuerttemberg. In the northern and central part of Germany the number of large farms increases by up to 5 % per year.”⁸

As for the dedication of the farmers, the percentage of full-time farmers is 10 percent points above the European average and no significant variations between types of regions considered exists. The share of farmers working full –time increased significantly in PRA regions and decreased by 10 percent points in PRR regions between 2000 and 2005 whereas it did not significantly change in the other kinds of regions. All in all the average change rate is with 5 % higher than the EU 27-average of 0.3 %.

The economic farm size is on average 64 ESU and thus higher than the EU-27 average (42 %). Considered regionally it is highest in PRA regions followed by IRA and PU regions and lowest in PRR regions.

The share of farmers with other gainful activities is on average 46% compared to the EU average of 38%. It is in all regions around 46 % except the two PRR regions where the share is slightly higher (50%). As this two regions are at the heart of one of Germanys main tourism regions it can be assumed that activities in tourism become apparent here.

The share of young holders is relatively high, the one of family labour and sole holders > 65 years the lowest in the EU as a consequence of the German pension system for agricultural sole holders which requires that the pensioner has to pass the farm to a successor to be eligible to receive a pension.

⁸ Zimmermann A.; Heckelei, T.: Farm Structural Change in German Regions – An Empirical Analysis using Micro and Macro Data. 12th Congress of the European Association of Agricultural Economists – EAAE 2008. P. 1,2

Throughout all regions the share of farmers with basic and full education in agriculture attained is quite high (70%) and is 30 percent points above the EU-27 average.

Table 5.7 Farm structural change indicators (a)

FARM STRUCTURAL CHANGE		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
% HOLDINGS 2005	< 2 ESU	13.71	14.45		13.88	15.56	14.05	33.42	33.89
	2 to 100 ESU	74.29	72.99		70.11	80.16	72.88	57.56	57.02
	>100 ESU	12.00	12.56		16.01	4.28	13.06	8.33	8.38
%CHANGING N° HOLDINGS 2000-2005	% Change in number of total holdings 2000-2005	-14.58	-14.83		-11.28	-16.74	-13.92	-9.53	-9.19
	% Change in number of holdings less 2 ESU 2000-2005	-2.05	-6.30		1.75	-8.07	-2.90	-2.22	-0.65
	% Change in number of holdings 2 to 100 ESU 2000-2005	-20.93	-21.52		-18.36	-20.05	-20.58	-13.91	-13.73
	% Change in number of holdings over 100 ESU 2000-2005	28.40	32.90		38.85	46.97	32.15	32.21	31.28

Table 5.8 Farm structural change indicators (b)

FARM STRUCTURAL CHANGE		PU	IRA	IRR	PRA	PRR	Average country	Average EU 27 +CH+HR+IS+LI+MK+NO+TR	Average EU 27
Variables		1	21	22	31	32			
HOLDERS	% Holders working full time 2005	44.00	42.51		43.04	41.90	43.27	35.42	35.50
	% Change in Number of Holders working full time 2000 - 2005	2.18	3.65		14.35	-10.30	5.06	0.00	0.33
	Economic Farm Size (RDEU07)	58.90	65.22		76.53	30.10	64.43	41.93	41.93
	Farmers with OGA (RDEU07)	45.20	46.00		45.93	50.10	45.65	37.56	37.56
	% holders > 55 years 2007	NA	NA		NA	NA	NA	50.19	50.62
	% holders < 35 years 2007	NA	NA		NA	NA	NA	6.35	6.32
	% change in holders > 55 years 2000 - 2005	-5.61	-4.08		0.82	NA	-3.86	5.88	5.62
	% change in holders < 35 years 2000 - 2005	-43.77	-44.60		-44.82	-45.12	-44.31	-34.01	-33.96
	% farmers with basic and full education in agriculture attained (RDEU07)	69.89	69.64		70.79	66.20	69.97	42.30	42.30

* Values NUT3 are replaced by values NUTS2

9. Institutional Capacity

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- characteristics of the governance system (type of administrative system, levels of government, distribution of powers),
- Dominant types of interactions among levels of government (formal/informal, hierarchical/cooperative, open/closed, top-down/bottom-up, etc.)
- Which are the main problems in relation to government and governance?
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in promoting better institutional capacity, particularly in rural areas?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

Type of government: Democratic parliamentary federal state

Area: 357050 km²

Capital: Berlin

National languages: German; languages of ethnic minorities: Frisian, Sorbian, Danish and Romanes

Administrative division: Federal State consisting of 16 federal states that are each subdivided in administrative districts that are divided in counties. The administrative level of the counties are each subdivided in communities.

	NUTS 1		NUTS 2		NUTS 3		LAU 1		LAU 2	
DE	Länder	16	Regierungsbezirke	39	Kreise	429	Verwaltungsge- meinschaften	1457	Gemeinden	12 379

(http://ec.europa.eu/eurostat/ramon/nuts/introannex_regions_en.html (25.6.2009))

“Legislative power is divided between the federation and the state level. The Basic Law presumes that all legislative power remains at the state level unless otherwise designated by the Basic Law itself. Any federal law overrides state law if the legislative power lies at the federal level. The Bundesrat is the federal organ through which the states participate in national legislation. State participation in federal legislation is necessary if the law falls within the area of concurrent legislative power, requires states to administer federal regulations, or is so designated by the Basic Law. Every state has its own constitutional court. The Amtsgerichte, Landgerichte and Oberlandesgerichte are state courts of general jurisdiction. They are competent whether the action is based on federal or state law. Many of the fundamental matters of administrative law remain in the jurisdiction of the states, though most states base their own laws in that area on the 1976 Verwaltungsverfahrensgesetz (Administrative Proceedings Act) covering important points of administrative law. The Oberverwaltungsgerichte are the highest level of administrative jurisdiction concerning the state administrations, unless the question of law concerns federal law or state law identical to federal law. In such cases, final appeal to the Federal Administrative Court is possible”.⁹

⁹ <http://en.wikipedia.org/wiki/Germany> (26.6.2009)

Membership in international organizations: United Nations (1973), NATO (1955), Council of Europe (1950), OECD (1961), EG (1957), OSZE (1975) and all important special organizations of the United Nations.¹⁰

Policy for regional development:¹¹ The “Gemeinschaftsaufgabe Agrarstruktur und Küstenschutz” (GAK) that strongly focuses on agriculture is defined as the main formal instrument for rural development by the federal government. At the federal level the GAK is assigned to the Federal Ministry of Food, Agriculture and consumer Protection. Because of the decentral structure of the German policy system the EU co-financed rural development programs are specified and administered by the federal states whereas each state shapes its program based on its priorities and specific demands.

Thereby the single programs of the federal states are intertwined with the federal policy for rural development according to the regulations proposed by the GAK. During the implementation of the policy for rural areas the regions hold a prominent role.

Besides the GAK the “Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur” (GRW) is important for regional development. The GRW has both a rural and an urban component. It is assigned to the Federal Ministry of Economics and Technology. It functions similar to the GAK based a formal agreement between the federal state and the federal states.

In addition the federal state influences regional development by initiating regional competitions aiming at regional development, fostering regional cluster policy initiatives and regional competence-networks, etc. as result of a paradigm shift towards a stronger influence of the federal state due to regional development matters whereas the main focus is especially in areas outside agriculture. At present a coordination of this initiatives with the GAK and GRW can not be recognized.

All in all, especially in rural areas public participation often formalized in local action groups and endogeneous development strategies play an important role within regional development efforts.

Table 5.9 Institutional capacity indicators

¹⁰ <http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/01-Laender/Deutschland.html> (26.6.2009)

¹¹ cp. OECD (2007): OECD-Prüfbericht zur Politik für ländliche Räume. Deutschland. P. 98-107

INSTITUTIONAL CAPACITY		PU	IRA	IRR	PRA	PRR		Average EU 27 +CH+HR+IS +LI+MK+ NO+TR	
Variables		1	21	22	31	32	Average country		Average EU 27
GDP DISPERSION OF GDP_2005	GDP in Mio. Euro 2005	8649.71	5178.56		5199.53	1649.2	6695.56	9722.69	9856.11
	GDP in PPS per inhabitant 2005	29488.56	19930.34		19462.47	19135.8	24043.81	20926.83	21110.46
	GDP in euro per inhabitant in percentage of the EU average 2005	138.90	93.88		91.68	90.15	113.26	94.38	95.48

10. Climate change

Guidelines: please, add comments based on your local knowledge on the following (when possible, support your comment on provided tables and/or other sources):

- Which are the main perceived threats in relation to climate change for population, authorities, interest groups?
- Are there any scientific evidence pointing to climate change? Please describe
- Are there specific policies/programs/initiatives that could be labeled as “best practices” in counteracting the effects of climate change, particularly in rural areas?
- Are there significant variations in the above processes depending of the types of regions considered (ie. PU, IRA, IRR, PRA, PRR)? Please, describe briefly.

The main perceived threads in relation to climate change are supposed to be mainly caused by anthropogenic emissions of greenhouse gases¹² and are

- global warming whereas according to the Intergovernmental Panel on climate Change (IPCC) there is a “very high probability” that the greater part of the warming observed since 1950 is caused by human activities¹³. Due to Germany there is a strong regional variation, especially since the 1990s the temperature rise has been exceptionally strong in southern and south-west Germany. All in all a trend towards a stronger temperature increase in winter (+2.3° C) than in the summer (+0.7° C) could be observed¹⁴;
- shifts in the rainfall cycle due to climate change. At present precipitation in Germany is characterised by strong regional and seasonal variations without significant trends¹⁵, but based on climate scenarios it is assumed that in the future summer rainfall could show a nationwide decrease of up to 40 %, with regions in the south-west Germany affected most and a increase of winter rainfall by between 0 % to 40 % (70 % for the central upland regions of the states of Rheinland-Pflaz, Hessen und north-east Bayern¹⁶;
- changes in the duration of snow cover whereas since the 1950s a decrease by 30% to 40% has been observed in altitudes below 300m in Bayern and Baden-Württemberg. In altitudes between 300m and 800m the decreas was 10% to 20% and in high altitudes above 800m only small or no decreases in snow cover duration were observed¹⁷.
- an estimated increase in the frequency and intensity of extreme weather events (number summer days with temperatures > 25° C, number of hot days with temperatures > 30° C, intensity of intense rainfall) based on climate scenarios.

¹² Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 10

¹³ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 8

¹⁴ Zebisch, et. al. (2005): Climate Change in Germany. Vulnerability and Adaption Strategies of Climate-Sensitive Sectors. Summary. = Environmental Research Plan of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Research Report 20141253. UBA-FB 000844. P. 5-6

¹⁵ Zebisch, et. al. (2005): Climate Change in Germany. Vulnerability and Adaption Strategies of Climate-Sensitive Sectors. Summary. = Environmental Research Plan of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Research Report 20141253. UBA-FB 000844. P. 6

¹⁶ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 11-12

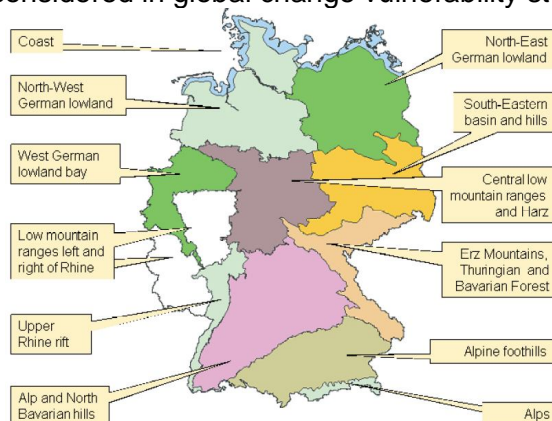
¹⁷ Zebisch, et. al. (2005): Climate Change in Germany. Vulnerability and Adaption Strategies of Climate-Sensitive Sectors. Summary. = Environmental Research Plan of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Research Report 20141253. UBA-FB 000844. P. 6

“The temperature and rainfall projections for the future give reason to expect further climatic effect. The greater the magnitude of global climate change, the stronger these effects will be”¹⁸.

It has been recognized that climate change does not only have impacts on nature but also on industry and society, too. Vulnerability to the impacts of climate change varies from one region to another. According to the study of Zebisch, et. al. [2005] the highest vulnerability of climate change within the climate sensitive sectors is exhibited by Southwest Germany (upper Rhine rift), the central parts of Eastern Germany (North-Eastern lowland, South-Eastern basin and hills), and the Alps. The lowest vulnerability is assessed for the German low mountain ranges and Northwest Germany¹⁹.

Following table summarizes the results of a vulnerability analysis to global change with special emphasis on climate change for regions as well as economic sectors in Germany based on a business-as-usual scenario conducted by Zebisch et. al. [2005].

Figure 5.2.: Regions considered in global change vulnerability study



Source: Schröter, D; Zebisch, M.; Grothmann, T. (2005): Climate Change in Germany - Vulnerability and Adaptation of Climate-Sensitive Sectors. <http://www.schroeter-patt.net/Schroeter-et-al-KSB06.pdf> (13.08.2009)

Table 5.10.: Results of global change vulnerability study

¹⁸ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 15

¹⁹ Zebisch, et. al. (2005): Climate Change in Germany. Vulnerability and Adaption Strategies of Climate-Sensitive Sectors. Summary. = Environmental Research Plan of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Research Report 2014/253. UBA-FB 000844. P. 7

Sector	Water		Agriculture	Forestry	Nature conservation	Health		Tourism		Transport	All sectors
Environmental zone	Flood	Drought				Heat stress	Vector-borne diseases	Winter tourism	Other forms of tourism		
Coastal zone	-- ⁽¹⁾	~	~	~	-/- -? ⁽²⁾	~	-?	n.d.	-	-	-
North-West German lowland	--	~	~	~	-/- -? ⁽²⁾	~	-?	n.d.	-	-	-
North-East German lowland	--	--	--	--	-/- -? ⁽²⁾	-	-?	n.d.	-	-	--
West German lowland bay	--	-	-	-	-/- -? ⁽²⁾	--	--?	n.d.	-	-	-
Central low mountain ranges and Harz	--	-	~	-	-/- -? ⁽²⁾	-	-?	--	-	-	-
South-Eastern basin and hills	--	--	--	--	-/- -? ⁽²⁾	--	--?	n.d.	-	-	--
Erz Mountains, Thuringian and Bavarian Forest	--	-	-	-	-/- -? ⁽²⁾	-	--?	--	-	-	-
Low mountain ranges left and right of Rhine	--	-	-	-	-/- -? ⁽²⁾	-	--?	--	-	-	-
Upper Rhine rift	--	-	-	--	-/- -? ⁽²⁾	--	--?	n.d.	-	-	--
Alp and North-Bavarian hills	--	-	-	-	-/- -? ⁽²⁾	-	--?	--	-	-	-
Alpine foothills	--	-	-	--	-/- -? ⁽²⁾	-	--?	n.d.	-	-	-
Alps	--	~	~	-	--	~	-?	--	-	-	--
Germany	--	-	-	-	-/- -? ⁽²⁾	-	--?	--	-	-	-
<p><u>Rating:</u></p> <p>-- high vulnerability</p> <p>- moderate vulnerability</p> <p>~ low vulnerability</p> <p>? High uncertainty or difficulty of evaluation</p> <p>n.d. - no data</p> <p><u>Rating „all sectors“:</u></p> <p>high vulnerability, if more than 2 sectors high</p> <p>moderate vulnerability, if 1-2 sectors high</p> <p>low vulnerability, if no sector high</p> <p>(“half” sectors count as half)</p> <p><u>Rating “Germany“:</u> mean value</p> <p>(1) Storm surges and sea level rise</p> <p>(2) Vulnerability dependent on conservation goal.</p> <p>- Conserving status quo: high vulnerability</p> <p>- Conserving processes: moderate vulnerability</p>											

Source: Schröter, D; Zebisch, M.; Grothmann, T. (2005): Climate Change in Germany - Vulnerability and Adaptation of Climate-Sensitive Sectors. <http://www.schroeter-patt.net/Schroeter-et-al-KSB06.pdf> (13.08.2009)

All in all the vulnerability analysis to global change (Zebisch, et. al. [2005]) comes to following conclusions due to the regional and sectoral implication :

Table 5.11.: Assumed regional implications of global change

Regions	Consequences of global	affected economic sectors
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	change	
North-Eastern lowland, South Eastern basin and hills	Low water availability, risk of summer droughts, decrease in summer precipitation, increased evaporation due to increased temperatures; High vulnerability of flooding in the river basins of the Elbe and Oder	Agriculture, forestry, transport sector
Upper Rhine Rift	High temperatures (strongest warming in the future is predicted); Shift of precipitation from summer to winter with high risk of flooding in spring; Increase in extreme rainfall events.	Health sector, agriculture, forestry
Alps	Risk of flooding; Decrease in snow safety.	Nature conservation Winter tourism
Low mountain ranges,	Medium vulnerability. Warmer climate can pose opportunities for some sectors; Risk of extreme rainfall and high flooding	Agriculture (might benefit) Winter tourism
Costal regions	Medium vulnerability; High vulnerability of more intensive storm surges; Rising sea level Rising summer temperatures and decreasing summer precipitation	 Agriculture and tourism (might benefit)
Northwest Germany	Lowest vulnerability	Agriculture, tourism, forestry (might benefit)
Wetlands, Congested urban areas	High vulnerability without further adaption	Water, nature conservation (in wetlands) Transport and Health sector (heat stress) in congested urban areas

Source: Own summarization based on Zebisch, et. al. (2005): Climate Change in Germany. Vulnerability and Adaption Strategies of Climate-Sensitive Sectors. Summary. = Environmental Research Plan of the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Research Report 20141253. UBA-FB 000844. P. 7

In order to deal with the consequences of climate change and to mitigate the emission of anthropogenic emissions of greenhouse gases Germany created a framework

(German Adaption Strategy) for the adaption to the consequences of climate change in Germany that primarily represents the contribution of the Federal Government and provides guidance for other stakeholders, lays the foundation for a medium-term process in which, in cooperation with the Federal States risks will be progressively identified. Action needs ascertained, appropriate objectives defined and potential adaption measures implemented.²⁰ The aim of this Adaption Strategy “is to reduce vulnerability to the consequences of climate change, to maintain or improve the adaptability of natural, social and economic systems, and to take advantage of any opportunities”²¹. In this sense the strategy identifies the need to²²

- improve the knowledge about climate change risks and to identify options for target-oriented actions;
- create transparency and participation and support various stakeholders by providing information, decision support, etc;
- rise public awareness due to climate change and its implications;
- developing strategies for dealing with uncertainty factors.

At present this Action Plan has not been passed, but it is planned to submit it to both houses of parliament by March 2011. It is also planned to establish an Inter-ministerial Working Group on Adaption until this date that will further deal with climate change topics and actions to be taken²³.

Besides the German Adaption Strategy, Germany took following steps to encounter climate change:

- Germany signed the Kyoto Protocol. Therby Germany committed to reducing greenhouse gas emissions by 21% during the same period (based on 1990 levels)²⁴. “In the context of implementing the Kyoto Protocol, emissions trading within the European Union was launched on 1 January 2005. The first trading period comprises the period from 2005 to 2007, the second trading period the years 2008 to 2012”²⁵. “In Germany, operators of 1,665 installations currently participate in emissions trading. This includes all large combustion plants (thermal output of more than 20 MW) and larger installations of energy-intensive industries such as steelworks, refineries and cement works.”²⁶
- “Since the beginning of 2008 the Federal Environment Ministry (BMU) has had additional funds at its disposal from the sale of emissions allowances for the implementation of a Climate Initiative. In 2008 a total of 400 million euro was available, of which 280 million was invested in Germany and 120 million euro in developing and newly industrialising countries. For 2009 this has been increased to 460 million euro of additional funding for the BMU budget. The goal of the Climate Initiative is to tap existing potential for reducing emissions in a cost-effective way and to advance innovative model projects for climate protection. Specifically, the BMU promotes climate protection measures for increased energy efficiency and greater use of renewable energies. Furthermore, the International Climate Initiative supports measures for adapting to climate change and for conserving climate-relevant biodiversity in developing

²⁰ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 4

²¹ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 4

²² Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 4

²³ Bundesregierung (2008): German Strategy for Adaption to Climate Change. P. 4

²⁴ http://www.bmu.de/english/emissions_trading/general_information/doc/6940.php (12.08.2009)

²⁵ http://www.bmu.de/english/emissions_trading/general_information/doc/6940.php (12.08.2009)

²⁶ http://www.bmu.de/english/emissions_trading/general_information/doc/6940.php (12.08.2009)

and newly industrialising countries. It thus aims to bring new momentum to negotiations on an international climate agreement for the post-2012 period²⁷.

- "The Federal Environment Ministry is promoting the transfer of knowledge on energy efficiency and renewable energies in developing and newly industrialising countries through its "Transfer Renewable Energy and Efficiency" (TREE) project"²⁸.
- Germany and the EU aim to strongly increase their use of renewable energies²⁹. "The Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG) obliges operators of power grids to give priority to purchasing electricity from renewable energies and to pay fixed prices for this. The amended EEG 2009 entered into force on 1 January 2009"³⁰.

²⁷ http://www.bmu.de/english/climate_initiative/general_information/doc/42000.php (12.08.2009)

²⁸ http://www.bmu.de/english/current_press_releases/pm/43263.php (12.08.2009)

²⁹ http://www.bmu.de/english/current_press_releases/pm/43263.php (12.08.2009)

³⁰ http://www.bmu.de/english/renewable_energy/general_information/doc/4306.php (12.08.2009)