Basic information about the region

The Usti Region with an area of 5 335 km^2 is the seventh in size amongst the total of fourteen regions of the Czech Republic. Compared to the national average its population density of 155 inhabitants per km^2 is rather high; its share in total number of inhabitants of the CR is 7.88%.

Registered unemployment rate in the Usti Region in 2011 reached almost 13% which was not any significant change in comparison with the previous year and it exceeded the national average by 4.3%. Long-term unemployment (expressed as average length of job-seekers registration) was the second highest in the Czech Republic after the Moravian-Silesian Region. The highest registered unemployment rate in the Region was in the District of Most; within the CR this district ranked third after Jeseník and Bruntál District.

Water management

Next to the Elbe River, important watercourses of the Usti Region are its left-bank affluent: Ohře and Bílina River and right-bank affluent: Ploučnice and Kamenice River.

From hydrologic balance point of view the year 2011 in the territory of the Region was quite common. During the year one flood situation occurred on lower Ohře River; water level in Louny reached the 3rd degree of flood activity, but the episode affected mainly the town´s surroundings. The flood did not cause any major damage to public or private property.

Flood-control measures consisting in construction of flood-protection dikes were completed at Křešice and Usti nad Labem.

In 2011, intake of surface water was lower than in 2010. Its volume of 185,987 m^3 was the lowest in past 5 years. Intake of groundwater amounting to 24,251 m^3 was, on the contrary, the highest in past 5 years.

Similar to intakes there was also decline in quantity of discharged wastewater by 9,648 m^3 in year-to-year comparison. Decrease in quantity of wastewater is most obvious in industrial wastewater. Individual production facilities aimed at in-plant water (e.g. cooling water) recycling. Substantial reason for reduction in discharged wastewater is also economic aspect connected with close-down of some less profitable operational units in both larger and smaller plants.

In 2011, the share of inhabitants connected to public water supply and sewerage system slightly increased in comparison with 2010. The share of population supplied from public water supply system increased by 0.7% and those living in houses connected to sewerage system increased by 1%. Due to mountainous landscape character the Usti Region has enough quality drinking water sources, mainly in the Ore Mountains. Main sources of surface water are water-supply reservoirs: Přísečnice, Křimov, Kamenička, Fláje, Jirkov, Jezeří, and Chřibská. Further significant source of water usable for drinking water supply are areas rich in groundwater resources, e.g. Ostrov, Sebuzín, Hřensko, Velké Žernoseky, Malešice and Staré Fláje.

The most polluted river in the Region in the long term is the Bílina River. Its pollution is related to the history of the region the river flows through (coal extraction in the Most Basin, contaminated Mračný stream emptying into Bílina, chemical industry). In the past, in fact the whole flow capacity was used as process water in chemical plant at Litvínov. Gradually, the situation has been improving year to year; the river bed is getting cleaner and cleaner and life is coming back to the Bílina River. Water quality in the Bílina River is in a simplified way expressed by quality class IV (highly polluted water) except for the part between Most and Trmice, which is classified as extremely highly polluted water (quality class V). Water quality in the Elbe River falls into quality class III (polluted water), and the Ohře River is rated as class I (very clean water) and II (clean water).

In scope of Czech Hydrometeorological Institute groundwater monitoring relatively low percentage of unsatisfactory analyses of inorganic and ammonium ions was detected in partial Ohře and Lower Elbe River watersheds, however, concentrations of all nitrogen containing substances were the highest in the whole Czech Republic. Also sulphates showed higher concentrations influencing total mineralisation of groundwater in the region. Compared to the previous year groundwater quality has not changed significantly.

In 2011, we registered 26 accidents of common type without long-term consequences.

Air quality and power generation

Since 2002, when Act No. 86/2002 Coll., on air protection was adopted, there has been a gradual decrease in quantity of all pollutants emitted by air pollution sources operated in the Usti Region. The sharpest decline has been recorded in concentrations of nitrogen oxides, carbon monoxide and volatile organic compounds. On the contrary, emissions of solid particles, sulphur dioxide and ammonia have been stagnating in recent years. Rather significant was year-to-year decline in total emissions of nitrogen oxides (NO_x) amounting to about 4,100 tons.

Distribution of emissions among individual groups of air pollution sources (REZZO 1 – extra large and large pollution sources, REZZO 2 – medium-sized air pollution sources, REZZO 3 – small air pollution sources, and REZZO 4 – mobile sources) has not undergone almost

any changes in recent years. Interesting phenomenon is decrease in emissions of solid particles from small sources by 265 tons, even though their total volume still accounts for 20% of total emissions from all sources (i.e. including large coal-fired power stations). Emissions of particulate matter (PM) from traffic, however, stay at the same level and account for 36% of emission totals.

Values of regional emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia set by Government Order no. 351/2002 Coll., as amended by Government Order no. 417/2003 Coll., were met in 2011.

Air quality in the Region is evaluated based on data collected by automated monitoring stations that are an integral part of the Air Quality Information System (ISKO) operated by the Czech Hydrometeorological Institute (CHMI) based on authorization by the Ministry of the Environment of the Czech Republic. In 2011, there were in total 33 automated air pollution monitoring stations operated in the territory of the Usti Region.

In 2011, 24-hour concentration of PM_{10} was exceeded at 15 stations and annual average concentrations of benzo(a)pyrene at 2 stations. No other ambient air pollution limit was exceeded at any measuring station situated in the territory of the Usti Region.

The highest 24-hour concentrations of PM_{10} were measured in February 2011 during rather long (12 days) smog situation with very bad dispersion meteorological conditions. In the same period also the highest benzo(a) pyrene concentrations were measured at Usti nad Labem – ZÚ Pasteurova and Teplice station.

Data from the measuring stations are further processed and used for defining areas with worse air quality (OZKO, i.e. for calculation of % of areas within a zone or agglomeration where ambient air quality limit values for one or more pollutants were exceeded.

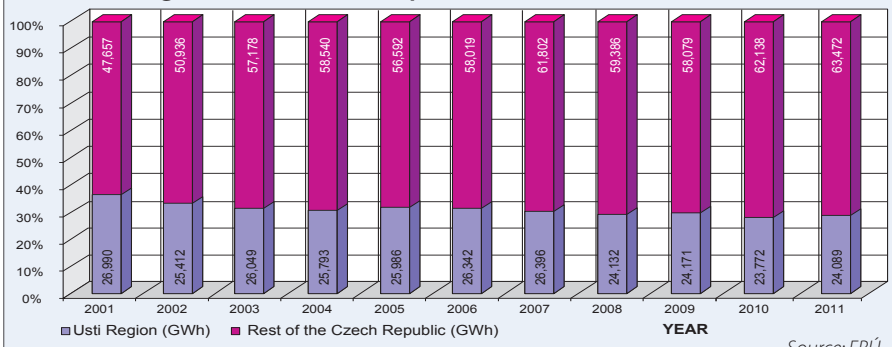
The area with worse air quality due to exceeding air quality limit for PM_{10} 24-hour average has not changed significantly in year-to-year comparison. This situation resulted mainly from meteorological conditions in winter months (repeated occurrence of inversion episodes with bad dispersion conditions in January, February, March, and November 2011).

In 2011, regular monitoring of Persistent organic pollutants concentrations in the air started in the Usti Region. In cooperation with the CHMI following localities were selected: Usti nad Labem (Trmice, incineration plant), Teplice, Most, Chomutov, and Usti nad Labem (Kočkov). These localities became part of the national monitoring network MONET.

The Usti Region ranks among important industrial regions, mainly in field of power generation due to still rich deposits of energy raw material – brown coal. Close to these deposits we can find some of the largest power plants in the Czech Republic (Prunéřov I and II, Počerady, Tušimice and Ledvice – ČEZ, a. s.).

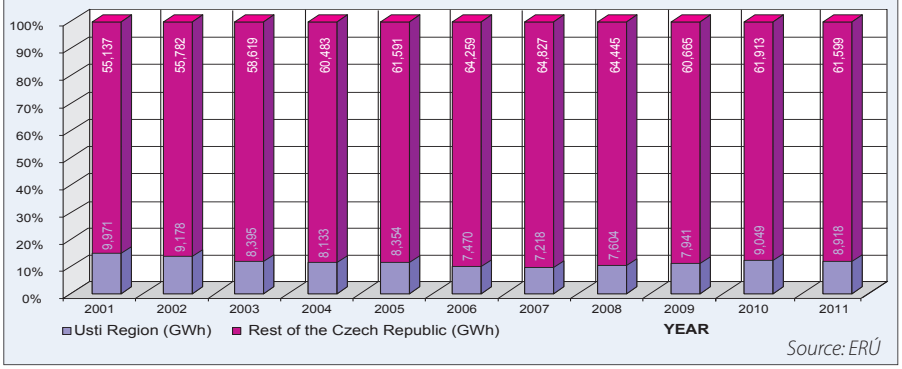
The Usti Region accounts for nearly one third of the total power generation of the Czech Republic – the share, which is, except for minor fluctuations, more or less stable. Similar development can be seen in electricity consumption. The electricity generation ratio in the Usti Region indicates indirectly the significance of the region from power generation industry point of view.

Share of electricity generation in the Power Generation System of the Usti Region and the Czech Republic (brutto)



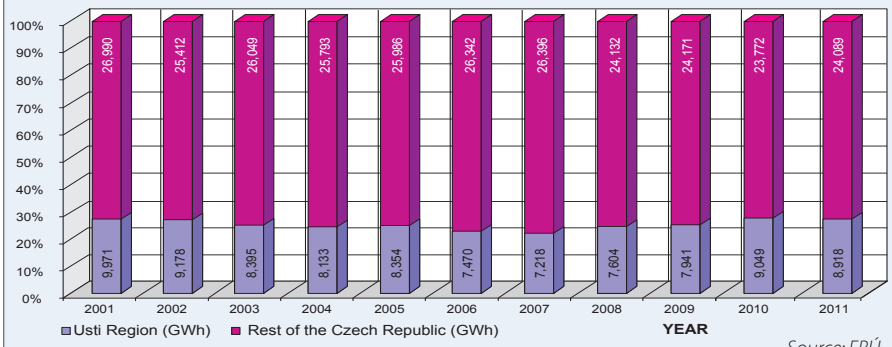
Source: ERÚ

Share of electricity consumption in the Power Generation System of the Usti Region and the Czech Republic (brutto)



Source: ERÚ

Electricity generation and consumption in the Power Generation System of the Usti Region (brutto)



Source: ERÚ

Nature conservation, environmental education, training and public awareness

Nature Conservation

In the Usti Region we can find 1 national park, 4 protected landscape areas, 12 national nature reserves, 13 national natural monuments, 53 nature reserves, and 70 natural monuments. In 2011, 6 new nature reserves were proclaimed to ensure protection of localities of European significance of Natura 2000 network.

There were 391 notable trees, 136 significant landscape elements most often including waterlogged meadows, mountain or xerophytic meadows, pools, balks, and localities of endangered plant and animal species occurrence registered in the Usti Region in 2011. To protect landscape character 7 nature parks were proclaimed.

As a project partner the Usti Region participates in the "Revitalisation of peat-bogs between Hora Sv. Šebestiána and Satzung – phase I" project. The project is supported by grant programme "Cíl 3 / Ziel 3 for strengthening cross-border cooperation between the Czech Republic and Free State of Saxony, 2007-2013".

In 2011, the regional authority ensured care of specially protected areas covering the total of 191.9 ha. Moreover, it concluded 10 agreements with landowners for implementation of measures aimed at enhancement of the environment quality. In scope of its grant programme for support of landscape revitalisation and biodiversity it subsidized 14 projects.

Environmental Education, Training and Public Awareness

The Usti Region took up its cooperation with EKO-KOM, a.s. and resumed the project of environmental education the objective of which is to intensify separated municipal waste collection. The fact that the issue of environmental education and enhancement of public awareness is not only a matter of educational institutions, civil association and other NGOs focused on enhancement of environmental awareness of target groups is evidenced by outcomes of a project organised by the Usti Region under the auspices of its governess for all municipalities of the Region. The outcomes of the 7th year, in which increase in separated waste by 9% in comparison with the previous year was recorded, bring the evidence of not only well-established and functioning system but also of increasing environmental awareness of the Usti Region´s citizens in the field of waste separation.

Through the "Environmental Education, Training and Public Awareness Programme (EVVO) in the Usti Region for period 2009 – 2012" applicants from the Programme target groups submitted their project proposals in already three rounds of calls for projects. Of the total of 22 submitted projects the regional bodies approved and subsidized 11 projects, which in terms of funds meant 490,000 CZK provided from the Usti Region´s budget. The form used by applicants for addressing broader or narrower interest groups are multifarious; the project objectives meet terms of reference necessary for granting the subsidy and the grant programme objective in and of itself as drawn up. Basic motto of the projects is ongoing increase in shared responsibility for current as well as future quality of nature and the environment in general.

Current grant programme "Environmental Education, Training and Public Awareness Programme (EVVO) in the Usti Region for period 2009 – 2012" with limited validity till 2012 will be drawn newly according to outcomes of the "Updated Concept of Environmental Education, Training and Public Awareness Programme in the Usti Region" which the Department of the Environment and Agriculture began to prepare at the end of 2011.

Waste management, old environmental burdens, accident prevention

Waste Management

There were no significant changes in waste production recorded in the Usti Region in past years. Total waste production increased slightly from 2.55 mill. tons to about 2.67 mill. tons of all produced waste kinds. If, however, we divide the total production into individual categories we find out that production of hazardous as well as municipal waste dropped, while production of other waste kinds increased. The highest increase was recorded in construction waste, mainly excavated soil, and in secondary raw materials, such as metals and paper. Increased production of these waste kinds indicates revival of trade in secondary raw materials in 2011. Increase in waste production from construction industry is related to large construction projects in the Usti Region´s territory (construction of a motorway and expressways, demolition of large constructions). Further construction and demolition work and first of all soil sanitation activities account for the highest increase in hazardous waste production. They include, for instance, soil sanitation of former phenol factory in Chemopetrol area, former galvanizing plant Háj at Loučná pod Klínovcem or ACTHERM s.r.o. Chomutov installations.

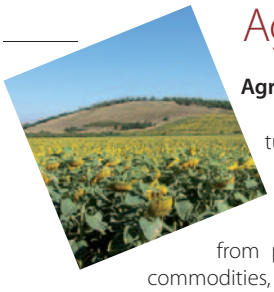
Large production of construction waste is closely linked with its further use for landscaping. Institutions performing these activities rank among top waste processing companies. Contrary to past years we also recorded increase in amount of waste processed in composting plants, treated and recycled waste. Main waste disposal facilities in the Usti Region are landfills. There are in total 14 landfills operated in the Usti Region´s territory. Certain role in waste disposal plays also a hazardous waste incineration plant. Updated list of all authorized waste collection, purchase, recycling or disposal facilities in the Usti Region can be found on the Usti Region´s websites: http://websouhlasy.kr-ustecky.cz/.

Old Environmental Burdens

There are 488 localities with an old environmental burden registered in the Usti Region. The most serious of them are being removed in scope of environmental agreements with the state. Regions, municipalities and private owners of lands with registered old environmental burden can apply for a subsidy for its disposal in scope of the "Environment" Operational Programme.

Accident Prevention

In the Usti Region there are 14 operators whose establishment or installation is classified in group A and 14 operators with classification of establishment or installation in group B according to Act No. 59/2006 Coll., on the prevention of serious accidents. All of them have got approved safety documentation. There are 5 accident planning zones set in the Region for which the Fire brigade of the Usti Region prepared an external emergency plan that is updated regularly. For more details please see the Usti Region´s website: http://www.kr-ustecky.cz/zivotni_prostredi.asp



Agriculture, forest management, game management, fishery

Agriculture

In 2011, agriculture in the Usti Region maintained most of its indicators from past years. Some commodities, however, showed more significant decline in production due to imports from abroad; in case of poultry it was also due to legislative requirement for investments into new facilities in poultry farms. The regional self-government expressed its interest in agricultural sector by subsidizing 51 projects in scope of "The Usti Region Agriculture and Rural Development Programme" with the total of 6.67 mill. CZK. Top quality local products were presented and prized in competitions "Regional Food of the Usti Region" and "Food Product of the Usti Region – Přemysl, the Ploughman´s Region".

Soil is a dynamic system that is subject to on-going development process. It is an irreplaceable factor inevitable for agricultural production or source of raw materials for building industry; land provides space for construction development and other human activities. Agricultural land can be divided into arable land, permanent grassland, hop-gardens, vineyards, orchards and gardens. Soil types are classified into five classes of protection. Class I means soil of the highest quality, while class V that of the lowest quality. Soil of the highest quality in the Usti Region can be found in Louny, Litoměřice, Žatec and Lovosice area. Agricultural land acreage in the Usti Region decreases mainly as a result of extensive construction activity, less due to extraction of mineral resources and forestation. In recent years increase has been recorded in utilization of land for construction of warehouses, manufacturing halls and residential zones. In 2011, we encountered decline in number of photovoltaic power plants that used to be built mainly on the most fertile land. Protection of agricultural land acreage can be achieved by sound landscape planning and reasonable urban development, amelioration and maintenance of lands in order to prevent forest invasion.

Forest Management

Forest stands in the Usti Region rank among the most damaged forests in the Czech Republic. The Usti Region with its 157,060 ha of forest-stand area belongs to the least forested regions of the Czech Republic. It results mainly from its geographical location and land use (brown coal extraction and agriculture). Share of both productive forests (48.5%) and special-purpose forests (44.5%) in the Usti Region is almost the same. The reason for such a high share of the special-purpose forests is mainly occurrence of forests with higher protective function, forests the purpose of which is protection of medicinal and mineral water, forests that are part of the national park and protected landscape areas. Protective forests (7%) include first of all those in

extremely unfavourable habitats of the Krušné hory Mountains (about 10,581 ha).

Composition of tree species used for forestry purposes in the Usti Region is rather manifold as well as variability of forest habitats (plateaus, mountain slopes, deep valleys, and rocky gorges). It is caused mainly by the Usti Region´s location but also by current land use for brown coal extraction. We can expect that gradual reclamation of the exploited area will result in a higher share of forested lands and change in tree species composition in the Usti Region´s territory.

Despite the aforementioned situation these forests many times fulfil often disregarded functions such as, for instance, space for recreation, public sports activities and/or protective function from water resources occurrence point of view. As to health state of forest stands in the Krušné hory Mountains in years to come we can expect changes in tree species composition, mainly decrease in share of Picea pungens (blue spruce) in favour of Picea abies and Fagus sylvatica (European beech). Health state of the Krušné hory Mountains does not depend only on transformation of substitute tree species itself but also on proper game management, efficacious protection and prevention against current pests and, last but not least, on effective attaining and drawing funds from the existing grant programmes.

Game Management

Game keeping consists mainly in breeding of individual animal species. In the Usti Region we can meet following animal species:

Krušné hory Mountains host the largest population of red deer in the Region. Moreover, there are records of black grouse occurrence. Rather numerous is population of roebuck, fallow deer, mouflon, sika deer, and wild boar. Polabí area with intensive agricultural production provides suitable habitat for population of small game, both furred (brown hare) and feathered (pheasant). Curiosity is considered population of chamois in the Czech Switzerland. Part of game management is also hunting.

In 2011, in hunting grounds of the Usti Region, the total area of which is 422,915 ha, 8,639 pieces of wild boar, 5,588 pieces of roebuck, 3,909 pieces of red deer, 1009 pieces of mouflon, 792 pieces of fallow deer, 268 pieces of sika deer, and 5 pieces of chamois were hunted down. Of small game it was 5385 pieces of pheasant, 4,175 pieces of mallard duck and 952 pieces of brown hare. A significant problem related to game management is damage to forest and field plantations or lands mainly in areas with high game stock.

Fishery

Fishery management in the Usti Region is exclusively a matter of recreational fishing and interest group´s activities. Sport fishing is permitted in fishing grounds designated on streams and water reservoirs. User of the fishing grounds is the Czech Anglers Union – an organisation associating people interested in angling. Their number in 2011 reached 30,119 of which there were 25,290 men, 3,588 youth under 15 and 1,241 women anglers. Exercise of the right of fishery in the Usti Region is permitted in 173 fishing grounds with total area of 4,825 ha. Private users manage remaining 3 fishing grounds with acreage of 15 ha.

EIA and IPPC, Geological environment

Geological Environment

There are significant resources of energy, metallic and non-metallic as well as construction raw materials in the territory of the Usti Region. The Usti Region is the principal producer of brown coal, production of which exceeded 80% of the CZ total in 2011. In the Most Basin brown coal is being extracted by Severočeské doly a.s. and the Czech Coal Group with its companies Litvínovská uhelná a.s. a Vršanská uhelná a.s. Extraction of mineral resources is closely related to soil reclamation and revitalisation issues.

Environmental Impact Assessment (EIA) and Integrated Pollution Prevention and Control (IPPC)

The purpose of the EIA process is to indicate, describe and assess expected impacts of selected projects on the environment and public health. The aim is to set measures for mitigation of adverse impacts on the environment and public health. Important information for an investor is that without a statement on the environmental impact assessment (EIA) no decision or measures necessary for implementation of the project can be issued in any administrative or other proceedings. Impacts on the environment and public health are assessed in all phases of the project (i.e. in its preparatory, implementation, operation as well as close-down phase) and the impacts are assessed also in case of out-of-standard operation conditions. In 2011, the number of newly submitted project proposals in the Usti Region slightly decreased in comparison with previous years; the most frequently submitted project proposals were filling stations (in majority in-plant) and business plans related to industrial production – either modernization of existing or construction of new plants. Complete information about assessed projects within the Usti Region as well as the whole CZ is available in CENIA agency database (http://portal.cenia.cz/eiasea/view/eia100_cr).

The main objective of the integrated pollution prevention is to achieve high level of protection of the environment as a whole against industrial and agricultural pollution by control of operation of selected installations listed in annex no. 1 to the IPPC Act.

From the effective day of the Integrated Pollution Prevention and Control Act (1. 3. 2003) till the end of 2011 there were 187 integrated permits issued in the Usti Region for following installations:

In 2011 the Regional Authority of the Usti Region issued:

- 4 integrated permits of which 2 decisions for new and existing chemical installations for production of basic inorganic substances, 1 decision for a new metal surface treatment plant, and 1 decision for an existing installation for ferrous metals processing;
- 5 substantial changes of which 2 decisions for existing chemical installations for production of basic organic substances, 1 decision for existing chemical installations for production of basic inorganic substances, 1 decision for existing incineration plant, and 1 decision for existing installation for manufacture of glass;
- 120 unsubstantial changes.

Type of installation according to categories listed in annex no. 1 to the Integrated Pollution Prevention and Control Act	Number
1. Power Generation	
1.1 Combustion installations	**15**
1.2 Mineral oil and gas refineries	**1**
2. Production and processing of metals	
2.3 a) Hot-rolling mills	**1**
2.5 b) Non-ferrous metals smelting	**5**
2.6 Surface treatment of metals and plastic materials	**10**
3. Processing of Minerals	
3.1 Production of cement or lime	**1**
3.3 Manufacture of glass	**8**
3.5 Manufacture of ceramic products	**9**
4. Chemicals	
4.1 Production of organic chemicals	**46**
4.2 Production of inorganic chemicals	**16**
4.3 Production of fertilizers	**3**

Type of installation according to categories listed in annex no. 1 to the Integrated Pollution Prevention and Control Act	Number
5. Waste Management	
5.1 Disposal or recovery of hazardous waste	**13**
5.4 Landfills	**10**
6. Other installations	
6.1 a) Production of pulp	**1**
6.1 b) Production of paper and board	**2**
6.2 Pre-treatment or dyeing of fibres or textiles	**1**
6.4 a) Slaughterhouses	**1**
6.4 b) Food treatment and processing	**2**
6.5 Disposal or processing of carcasses	**1**
6.6 a) Intensive poultry-raising	**25**
6.6 b) Intensive pig breeding	**10**
6.6 c) Intensive sow breeding	**1**
6.7 Surface treatment using organic solvents	**1**
Non-categorised	**4**