AGRICULTURAL INTENSITY Contact person at the IMAD: Mateja Kovač	
DEVELOPMENT FIELD	Sustainable development – Integrating environmental criteria with sectoral policies
DESCRIPTION OF INDICATOR	*Definition*: **AGRICULTURAL INTENSITY** The level of the yield per hectare and the environmental impacts of agriculture critically depend on agricultural intensity. Agricultural intensity can be measured by several indicators. We monitor the following indicators separately: consumption of fertilisers, wholesale of pesticides, average number of animals per unit of utilised agricultural area, average milk yield per animal, average production per unit of area sown with selected crops, and the scope of organic and integrated farming. ▪ The estimated ***consumption of fertilisers*** is based on data on the imports, exports, and production of fertilisers and data about their stocks (SORS, Statistical Yearbook 2006). ▪ ***Wholesale of pesticides*** is expressed in quantities of active substances available to farmers and users outside agriculture (for the maintenance of railway and road corridors, sports and municipal areas, protection of food in warehouses). The available quantities were not necessarily used up. In Slovenia, these data are collected by the Phytosanitary Administration of the Republic of Slovenia and then also used by the Statistical Office of Slovenia (SORS, Statistical Yearbook 2006). ▪ The ***average number of animals per unit of utilised agricultural area*** shows the number of animals in a single unit of measurement, i.e. livestock unit (LSU). Coefficients are calculated on the basis of 500 kg live weight of animals. Utilised agricultural area is land which agricultural enterprises and family farms use for crop production. It includes include arable land, permanent crops, and permanent grassland (SORS, Statistical Yearbook 2006). ▪ ***Average milk yield per animal*** is the quantity of milk obtained from a cow in a given calendar year (milk obtained / number of dairy cows). ▪ The ***average production per unit of area sown with maize and wheat*** is the total quantity of wheat or maize produced per unit of area sown with these crops. ▪ ***Organic farming*** is a form of sustainable farming based on a balance in the system of soil-plants-animals-human beings and the closed circulatory system of nutrients in it. Crops are produced and animals reared by means of nature-sustaining measures without the use of chemical and synthetic substances (Rules on organic production and processing of agricultural products and/or foods, Official Gazette of RS, No. 31/2001). The negative effects of agriculture on the environment can also be reduced by means of other, less strict measures, where the use of unnatural substances is not prohibited, but selected and minimised. Such farming is called ***integrated farming***. However, organic farming represents the highest level of environment- and consumer-friendly farming and is therefore given special attention.

	Detailed methodological explanations: - SORS, Statistical Yearbook 2006. - Kovač Mateja: Projekcije razvoja po področjih dejavnosti, njihov okoljski pomen ter posledice – kmetijstvo: uporaba mineralnih gnojil na hektar uporabne kmetijske površine. Raziskava 'Strategija gospodarskega razvoja Slovenije – okolje kot razvojni dejavnik v pogojih notranjega trga', Ljubljana: Urad RS za makroekonomske analize in razvoj. 2000, 6 str. - Kovač Mateja: Projekcije razvoja po področjih dejavnosti, njihov okoljski pomen ter posledice – kmetijstvo: uporaba pesticidov. Raziskava 'Strategija gospodarskega razvoja Slovenije – okolje kot razvojni dejavnik v pogojih notranjega trga', Ljubljana: Urad RS za makroekonomske analize in razvoj. 2000, 6 str. - Radej B., et al.: Shema indikatorjev monitoringa okoljskega razvoja (A System of Indicators for Monitoring Environmental Development), Working Paper of the Institute of Macroeconomic Analysis and Development, No.7/Volume IX/2000 - Pravilnik o ekološki pridelavi in predelavi kmetijskih pridelkov oziroma živil (Rules on organic production and processing of agricultural products and/or foods), Official Gazette of RS, No. 31/2001 - Pravilnik o integrirani pridelavi zelenjave (Rules on integrated production of vegetables), Official Gazette of RS, No. 63/02 - Pravilnik o integrirani pridelavi sadja (Rules on integrated production of fruit), Official Gazette of RS, No. 63/02 - Pravilnik o integrirani pridelavi grozdja (Rules on integrated production of grape and wine), Official Gazette of RS, No. 63/02 - Council Regulation (EEC) No 2092/91 - Council Regulation (EEC) No 1804/99 - Council Regulation (EEC) No 1257/99 *International comparability:* Fertilisers: the indicator is comparable as far as the contents are concerned, but it is not comparable temporally. In Slovenia, statistics on the consumption of fertilisers are collected and reported on the calendar-year basis, whereas in the EU they are collected for the so-called fertilizer year, i.e. from 1 July to 30 June. Pesticides: it is not reasonable to make a comparison of total pesticide sales across the countries because they refer to the sum of active substances with highly varying levels of toxicity. The biological effect of new types of pesticides is increasingly stronger so they are effective in small quantities, while old types of pesticides (mainly copper- and sulphur-based) are generally biologically weaker and therefore used in much larger quantities.

	The number of animals per unit of agricultural area: the indicator is internationally comparable. Average milk yield per animal: the indicator is internationally comparable. Average production of wheat and maize: the indicators are internationally comparable. Organic and integrated farming: the indicators are internationally comparable. *Manner of presentation:* aggregately for the whole economy *Unit of measurement: tonnes/kilograms per hectare, LSU per hectare, litres per animal, number/share of organic and integrated farms in total number of farms, area/share of land used for organic and integrated farming in total utilised agricultural area*
SOURCE OF DATA FOR SLOVENIA	*Institution (publication):* – SORS: Rapid Reports, Statistical Yearbook. – Ministry of Agriculture, Forestry and Food – Ministry of Agriculture, Forestry and Food; Fytosanitary Administration of RS – Chamber of Agriculture and Forestry; Agriculture and Forestry Institute Maribor – calculations by IMAD *Frequency of publication*: annually
AVAILABLE TIME SERIES	1995-2005
INTERNATIONAL COMPARISONS	– Eurostat, website: http://epp.eurostat.cec.eu.int/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=EU_MASTER_forestry&depth=2 – European Environment Agency, website (http://themes.eea.eu.int) – Research Institute of Organic Europe, website (http://www.organic-europe.net)