

ARABLE AND PERMANENT CROPLAND AREA		
Land	Agriculture	Core indicator

## 1. INDICATOR

- (a) **Name:** Arable and Permanent Crop Land Area.
- (b) **Brief Definition:** Arable and permanent crop land is the total of “arable land” and “land under permanent crops”. Arable land is the land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (for less than five years); and land under permanent crops is the land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest.
- (c) **Unit of Measurement:** 1000 ha.
- (d) **Placement in the CSD Indicator Set:** Land/Agriculture.

## 2. POLICY RELEVANCE

- (a) **Purpose:** This indicator shows the amount of land available for agricultural production and, *inter alia*, the cropland area available for food production. The data when related to other variables such as population, total land area, gross cropped area, fertilizer use, pesticides use, etc., can also be used to study agricultural practices of the country. In order to be useful, it must be available as a time series.
- (b) **Relevance to Sustainable/Unsustainable Development (theme/sub-theme):** Population growth in developing countries is driving a rapid increase in the demand for food and fibre. At the same time, rising population density in rural areas diminishes the farm size. Small farmers are forced to extend cultivation to new areas, which are fragile and not suitable for cultivation. Crop intensification, which has contributed significantly to agricultural growth in recent years, can ease the pressure on cultivating new lands but farm practices adopted for raising yields can also, in some situations, result in damaging the environment (such as when expanding into new areas). Changes in the indicator value over time or between various components may show increased or decreased pressure on agricultural land. This indicator is of value to land planning decision making.
- (c) **International Conventions and Agreements:** Not available.
- (d) **International Targets/Recommended Standards:** Not applicable.
- (e) **Linkage to Other Indicators:** The indicator is primarily linked to other measures related to land resources covered in the Chapter 10: “Integrated Approach to the Planning and Management of Land Resources” and Chapter 14: “Promoting Sustainable Agriculture and Rural Development” of the Agenda 21. This includes indicators such as

land use changes, share of irrigated area in the arable and permanent crop land area, *per capita* arable and permanent crop land area, etc.

### 3. METHODOLOGICAL DESCRIPTION

(a) **Underlying Definitions and Concepts:** The concept of arable land and land under permanent crop is clearly defined but “arable” is often misunderstood. Arable land is the land under temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included in this category. Data for arable land are not meant to indicate the amount of land that is potentially cultivable. Similarly land under permanent crops is the land cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as cocoa, coffee and rubber; this category includes land under flowering shrubs, fruit trees, nut trees and vines, but excludes land under trees grown for wood or timber.

(b) **Measurement Methods:** The indicator is connected to the use of land for agricultural activity and is historically based on point estimates derived from data collected in periodic agricultural censuses and surveys.

(c) **Limitations of the Indicator:** This indicator does not reveal anything about increased productivity of agricultural land, or of the spatial variation in land quality.

(d) **Status of the Methodology:** Concepts and methods of measurements for the indicator are well defined and documented. However, some of the countries follow somewhat different concepts. For example, some countries take arable land as the land that is potentially cultivable, whereas the actual definition excludes permanent fallow land and land under permanent meadows and pastures. Similarly, “permanent” status for pastures, etc., is taken as ten years by some countries instead of the period of five years recommended by the Food and Agriculture Organization of the United Nations (FAO).

(e) **Alternative Definitions/Indicators:** Agricultural land that includes permanent pastures and meadows is a more appropriate indicator which could universally be related to data on use of fertilizers, pesticides and statistics on irrigated area (as some countries have permanently cultivated pastures).

### 4. ASSESSMENT OF DATA

(a) **Data Needed to Compile the Indicator:** Data on arable land and land under permanent crops. Data on permanent pastures and fallow land also would be useful for undertaking quality check.

(b) **National and International Data Availability and Sources:** National data for the indicator has been estimated generally through agricultural census/surveys. However, in the case of many countries such statistical exercises are undertaken only at selected points of time. At the international level data are being produced by FAO. This data set is produced as a continuous time series where missing data for

intercensal/survey periods have been derived by using data from various official and non-official sources. Thus the data for many countries are of unknown reliability.

**(c) Data References:** The primary data source at the international level is the FAO Statistical Yearbook released annually by the FAO and available on FAOSTAT <http://faostat.fao.org>

## 5. AGENCIES INVOLVED IN THE DEVELOPMENT OF THE INDICATOR

**(a) Lead Agency:** The lead agency is the Food and Agriculture Organization of the United Nations (FAO). The contact point is the The Director Statistics Division, FAO; fax no. (39 06) 5705 5615.

**(b) Other Contributing Organizations:** None.

## 6. REFERENCES

**(a) Readings:**

FAO. 2005. *World Programme for the Census of Agriculture 2010*. In: FAO Statistical Development Series (FAO), no. 11 / FAO, Rome (Italy). Statistics Div., 160 pp.

**(b) Internet site:**

FAO Statistical Databases. <http://faostat.fao.org/>