DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

SEEA Revision
Issue 19b
Cover Note

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Issue #19b: Land cover classification

Outcome paper for global consultation

Outcome Paper Issue #19b: Land cover classification

Issue description

There is no internationally agreed classification of land use nor land cover. CORINE land cover and the FAO Land Cover Classification System (LCCS) seem to be the most commonly used classifications. Should these two classifications be reconciled and a land cover classifications agreed in the revised SEEA? Should a separate classification on land use be included in the revised SEEA?

Background

Land is a central feature in any discussion of the environment. It provides the basis for plants, animals and ecosystems to operate, it underlies human infrastructure such as buildings and roads and, perhaps, most importantly, areas of land delineate the space in which we live. It is essential that in the revised System of Environmental and Economic Accounts (SEEA) there is a full discussion of relevant concepts and accounting treatments.

Because land is central to so many things the way in which it is considered from an analytical perspective can vary greatly. At times the interest is on how humans use the land surface, at times it is a description of the physical characteristics of the land that is the focus and at still other time it might be the "services" that the land provides that is of main concern.

These varying analytical perspectives may often overlap depending on which area of land is being considered. This has lead to the development of a wide range of classifications of different land areas depending on the specific analytical purpose. Generally speaking there are three concepts around which classifications are developed – land use, land cover and land function – but there are very few examples of classifications that stay true to one particular concept. Land can be also described on the basis of its ownership and registered and mapped in cadastral databases. These latest databases generally record information on land use, cover and functions which can be extracted (sampled) and used for accounting purposes.

The theoretical distinction between land cover and land use is well established**.** Land Cover (LC) refers to the observed physical and biological cover of the Earth's surface; the definition embraces vegetation and natural and artificial abiotic surfaces. Land Use (LU) reflects the total of arrangements, activities, and inputs undertaken in a certain land cover type (a set of human actions). The social and economic purposes for which land is managed (e.g., grazing, timber extraction, conservation) are land use characteristics. Thus land cover is about the biophysical aspect of land and land use is about the functional aspect of land.

This issue concerns investigation into classifications and higher level structures for land cover. A separate outcome paper has also been distributed discussing a proposed

classification for land use (see Issue #19a: Land Use Classification). The discussion on land functions and the relationships between land and the measurement of ecosystems will not take place in Volume 1 of the revised SEEA. While work in this area is progressing it is not yet developed sufficiently for inclusion as part of an international statistical standard. Rather, this work will be incorporated into Volume 2 of the revised SEEA which will focus on accounting for ecosystems.

Summary of outcomes

The investigation into land cover has found that a very comprehensive and well developed classification for land cover exists, the FAO's Land Cover Classification System (LCCS) and it can be applied in the SEEA to define the basic features of land cover in any region. A recommendation is made concerning this classification. Investigation suggests that an alternative higher level structure might be warranted for SEEA purposes, in particular for the assessment of land cover change and ecosystem accounts. A question is posed as to the direction the SEEA revision should take.

Recommendation 19b.1: That the Land Cover Classification System (LCCS 3) developed by FAO should be adopted as the land cover classification system in the revised SEEA and that the LCML (ISO 19144-2) should be adopted at the methodology for linking to external sources of land cover data described in other land cover systems.

Question 19b.2: In the revised SEEA should an aggregated structure for land cover (Land Cover Nomenclature (LCN)) based on the FAO Land Cover Classification System (LCCS 3) be defined where the aggregated groups are defined according to landscape features influenced by land use?

Questions

1. Do you agree that the Land Cover Classification System (LCCS 3) developed by FAO should be adopted as the land cover classification system in the revised SEEA and that the LCML (ISO 19144-2) should be adopted at the methodology for linking to external sources of land cover data described in other land cover systems?

2. In the revised SEEA should an aggregated structure for land cover (Land Cover Nomenclature (LCN)) based on the FAO Land Cover Classification System (LCCS 3) be defined where the aggregated groups are defined according to landscape features influenced by land use?

3. Any other comments?

To submit responses to these questions please complete the accompanying comment form available on the website. You are encouraged to submit a short response to the questions (yes/no/no comment) even if you have no further comments to submit.

Deadline for responses: 17 January 2011