

## PROCEDURE FOR THEMATIC AGGREGATION

Thematic aggregation is the way that the end user customizes the Africover database to fulfil his/her specific requirements. The Africover database gives equal level of detail to Agriculture as well as Natural vegetation or Bare Areas etc. Generally a single user does not need this level of detail for each class type; therefore he/she will enhance the information of one land cover type and will generalize or erase the information related to other land cover aspects. The most powerful way to conduct an aggregation exercise is to use the classifiers as basic elements of the exercise. This gives the user the maximum flexibility on the use of data.

The aggregation procedure follows three main conceptual phases:

1. Identification of the classifiers needed for the data customisation. In the first example for Tanzania the user wants to know the location of “open to closed tree and scrub (woody) natural vegetation” in the country. In annex 1 the all classifiers needed are shown. To check and understand the meaning of each of them the user can refer to the “Land Cover classifiers list”, “Legend” and “LCCS glossary” attached to each country data set.
2. Identification of the thematic classes containing the selected classifiers. In annex is shown an automatic procedure using ArcView software and Africover extensions. However the identification can be done manually using the “Legend” file of each country.
3. Creation of the aggregated classes takes into account the Africover cartographic standards. In the Africover database, due to the MMA (Minimum Mappable Area) chosen, the concept of Mixed Unit is introduced using the inherent characteristics of the study area. For example: Land cover class A can be spatially represented in different ways:
  - As single map unit A
  - As mixed map unit where A is the dominant feature (more than 50% of polygon area) A/B
  - As mixed map unit where A is not the dominant feature (from 20 to 49% of polygon area) B/A
  - As mixed map unit where A is not the dominant feature (from 10 to 20% of polygon area) B/A (this is valid only for “Isolated Agricultural Fields”)

Due to the fact in Africover a mixed unit can have up to three classes A/B/C an aggregation class (called 1) can be represented in four (five for agriculture) different ways:

- 1 (where 100% of polygon area represent the aggregation class)
- 1a (60% app.)
- 1b (40% app.)

- 1c (20-30% app.)
- 1d (15% app. Only for agriculture)

The user can further aggregate these classes according to his/her needs.

In Annex 1 it is shown a semi-automatic procedure of aggregation using ArcView software and the related Africover extensions.

Annex 2 displays the table of aggregation that depicts which map-codes were assigned to which aggregation class.