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Participatory 3d Modelling in Bonga, South-western Ethiopia

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Abstract

The participatory 3D modelling approach presented herein bases on a publication by RAMBALDI and CALLOSA-TARR from 2001. The work was carried out as part of a diploma thesis conducted in the Bonga region of south-western Ethiopia during a three month field trip in 2005. For the purpose of this thesis, titled 'Conservation areas for wild coffee in Ethiopia: an exemplary planning concept based on land use', the original approach developed in and for the Asian region was adopted.

Participatory 3D modelling basically is a Community-integrated Geographic Information System (CiGIS) (RAMBALDI AND CALLOSA-TARR, 2001). Its key focus is the establishment of means that allow ordinary people to work and understand spatial data, to create new realities e.g. the change of land uses and to provide information on the area. The approach thereby tries a much wider integration of stake holders. In the context of the thesis, the 3D modelling was used as a tool to gather spatial data on habitat types. This information in turn formed the spatial data base for the land use types. These types were also gathered through mapping in the field — in order to have two comparable data sets. For the actual participatory mapping, local farmers were invited to mark predefined habitat types and thereby expatiate their expert knowledge.

The presentation will give an overview over the possibilities of 3D modelling as a CiGIS, highlight key differences between the work conducted and the original approach, and give details on the lessons learned. It will also give hands-on tips on the construction of a basic model, the documentation of the modelling process as well as the finished model, and the organisation of modelling sessions.

Keywords: 3d, CiGIS, Ethiopia, gIS, modelling, participatory, spatial information