

Control of cross-compliance issues with remote sensing

B. F. Pedersen ^a,

^a Danish Institute of Agricultural Sciences, DIAS, Dept. Of Agroecology,
P.O. Box 50, DK-8830 Tjele, Denmark - birger.pedersen@agrsci.dk

Abstract –The European Union's common agricultural policy (CAP) was changed in 2003; the area-based subsidy was changed to a single payment scheme. As part of this reform a control of cross compliance of the applications for subsidy was introduced concerning at least 1% of all the applications for area-based subsidy. The European Union found that remote sensing was an efficient tool to perform part of the control of the cross compliance issues. In ten years the European Union has set up the yearly technical specification and recommendations for the controls with remote sensing. This control is now acting as the primarily control of the applications for subsidy in most of the member states, which shows one of the largest benefits from the remote sensing data. With the recent change in the CAP the scope of the remote sensing images will be extended to the environmental issues which is subject for the cross compliance. The yearly technical specifications and recommendations are taking this new control in to consideration.

The Remote Sensing Unit at DIAS has since 1992 performed a part of the control of the area based subsidies by remote sensing. As part of the controls implementation of a national register of parcels and a digital field block map was required. The farmers apply either using orthophoto paper maps or using the drawing facilities on the Internet to draw the outlines of their fields within the field blocks. The Internet application allows also the farmer to draw the outlines of their parcels more precise using the zooming facility. The paper maps are fixed at scale 1:10000. The orthophotos are from the previous harvest season or older, but EU provides panchromatic VHR imagery for the controls from the current harvest year.

The task in the remote sensing controls is basically to verify the areas and crops that the applying farmers are declaring. To take benefit from remote sensing data the application that are subject for controls are selected in sites lightly smaller than Spot-scenes (radius 25km). The controlled applications are classified rejected or accepted. The rejected applications are subject to further controls on the spot. The new VHR imagery allows smaller sites.

The area controls requires that the fields are digitised in a GIS system using the same orthophoto background as the farmers for the parcels applied with paper maps or using the fields applied using the Internet directly. The cross compliance issues are defined in different ways; mainly as some environmental requirements that have to be met in specific geographic areas. This means that the GIS system has to take into account these geographic limits in order to find out which requirements to measure for which parcels.

To control cross compliance issues with remote sensing in Denmark will therefore require that all basic data is defined in

same GIS system and that satellite imagery in the given areas is available in due time. This paper describes the implementation of these new measures in Denmark.

Keywords: Remote sensing, GIS, cross compliance, Agriculture, subsidies.

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