

Ground data collection in Ukraine over JECAM test site within international projects

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During last 10 years it was started a lot of international projects, which are dedicated to development and unification of ground data collection main principles. One of the most important domains for that is agricultural monitoring and land cover classification. Such an initiatives are JECAM (Joint Experiment on Crop Assessment and Monitoring) and GEOGLAM project within GEOSS system development activities, a lot of different projects within FP7 and HORIZON 2020 European Programs, in Particular Geoland/Geoland2, ImagineS, SENSAGRI, and, finally, one of the recent ESA project "Sentinel 2 Agriculture".

All these projects and initiatives were related to agricultural tasks solving and guideline's refinement for effective ground data collection. Our Ukrainian team is taking an active part in all activities and projects with JECAM test site, which was established in 2011. So we have a 7 years' experience of collecting in-situ training and testing data for crop classification and crop monitoring.

For example our experts are organizing ground surveys each vegetation season since 2011 at region level and since 2016 for the whole country. Ground observations have been collected along the roads distributed in the whole study area. For example, for the current year we have collected near 6500 samples for all (not only major) crops. These data was used to train the classifiers with different architecture and validating the results (accuracy estimation). Such tasks require high performance computations [1] and machine learning [2].

There is White Paper on in situ data collection guidelines from Sen2Agri ESA project [3], which was recommended by JECAM community and used by us for ground data collection. Our experience and best practice will be described during the presentation.

References

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