

How Codes of Good Agricultural Practices Contribute to Nutrient Reduction



Abstract: The overall project development objective has been to increase significantly the use of environment-friendly agricultural practices in the project area and thereby reduce nutrient discharge from agricultural sources in Romania to the Danube River and Black Sea. The issue was strengthening national policy and regulatory capacity regarding water protection against pollution with nutrients originating from agriculture. The project addressed the through two activities: (i) providing technical assistance (training) to the Romanian Ministries related to the application of the EU Nitrate Directive; and, more specifically, (ii) preparing, editing and printing the Code of Good Agricultural Practices, coupled with (iii) testing and demonstration of environment friendly agricultural practices. This experience is central to implementing nutrient reduction in transboundary waters.

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Romania: Agricultural Pollution Control Project

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Experience of the GEF sponsored

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PROJECT DESCRIPTION

The overall project development objective has been to increase significantly the use of environment-friendly agricultural practices in the project area and thereby reduce nutrient discharge from agricultural sources in Romania to the Danube River and Black Sea. In support of this objective, the project has assisted the Government of Romania to: (i) promote the adoption of environment-friendly agricultural practices by farmers' associations, family farms and individual farmers in the Calarasi Judet (county); (ii) promote ecologically sustainable land use and management in the Boianu-Sticleanu Polder, and ecological restoration of the neighboring Calarasi-Raul Polder to act as a filter and reduce nutrient discharge to the Danube; (iii) strengthen national policy and regulatory capacity; and (iv) promote public awareness and mechanisms for replicability. The project, envisaged as a demonstration activity in the Calarasi county in the southern part of Romania, along the lower Danube, has provided replicable lessons for introduction of similar practices in other districts of Romania as well as other Black Sea riparian countries.

Project impact, output and performance indicators have been developed to provide a baseline and targets for project monitoring and evaluation. The success of overall project impact has been measured in terms of adoption of practices for reducing nutrient discharge, namely: (i) percentage of households with livestock in project area adopting improved manure handling facilities – targeted to move from baseline of zero to 45% by 2006 and 65% by 2010; (ii) percentage cropped area coming under nutrient management systems including crop rotation, crop nutrient management with soil testing, and use of organic manure – targeted to reach 30% by 2006 and 65% by 2010; (iii) percentage of cropped area employing environment-friendly practices – target of 65% by 2010; and (iv) trends in water quality indicators at designated sites – flow of nitrogen

and phosphate to Danube river to be reduced by 10% by 2006.

The global environmental objective of the Project has been to reduce, over the long-term, the discharge of nutrients (nitrogen and phosphorous) and other agricultural pollutants into the Danube River and Black Sea through integrated land and water management of the Calarasi region and ecologically sustainable use of natural resources in two agricultural polders. The project is the first of its kind under the umbrella of the *Black Sea/Danube Strategic Partnership - Nutrient Reduction Investment Fund* under which riparian countries are eligible for Global Environment Facility (GEF) funding for projects that would control or mitigate nutrient inflow to the Black Sea. The project was one of the Bank's early efforts in mainstreaming environmental considerations into agriculture and has served as a model for similar operations to be replicated in the other littoral countries under the umbrella of the Strategic Partnership Program.

Project activities are directly linked to the "Strategic Action Plan for the Protection and Rehabilitation of the Black Sea" (BSSAP), formulated with the assistance of the GEF. BSSAP has identified nutrient discharge from agricultural sources as the most serious problem facing the Black Sea. By improving manure management and agricultural practices, and by sustainably managing two high priority former floodplain areas, the project has also complemented the Danube River Pollution Reduction Program and has assisted the Government in meeting its international obligations under the Bucharest Convention. In addition, project activities have helped the Romanian government in honoring its commitments under the Odessa Ministerial Declaration on the Protection of the Black Sea and the Danube River Protection Convention, as well as have assisted to move Romania towards EU accession by addressing European Union Directives: 91/676/CEE – Directive regarding

water protection against pollution with nutrients originating from agriculture; and 96/61/CEE – Directive related to the prevention and the complete reduction of pollution.

ISSUE AND EXPERIENCE

The issue to be addressed was to strengthen national policy and regulatory capacity regarding water protection against pollution with nutrients originating from agriculture.

This issue was addressed through two activities: (i) providing technical assistance (training) to the Romanian Ministries related to the application of the EU Nitrate Directive; and, more specifically, (ii) the preparing, editing and printing of a Code of Good Agricultural Practices, coupled with testing and demonstration of environment friendly agricultural practices

With regard to providing technical assistance to the Romanian Ministries relative to the application of the EU Nitrate Directive, **the concern** was that the local implementing agencies (at county level) might be unable to attract and retain qualified staff. **The solution** was to build adequate professional expertise for the local agency staff involved in the implementation and monitoring of the provisions of the Nitrates Directive. This was achieved by providing them with training and career development benefits consisting of certificates endorsed by the Ministry of Education and Culture, which attested to their quality. In the period September-October 2005, the project organized three training sessions, delivered to staff from three county level institutions, grouped by region. 153 specialists from all counties in the country were trained. The sessions proved to be a great success, as evidenced by reception of numerous requests for continuation and for extension toward other institutions involved in the monitoring and/or application of the Nitrate Directive (DADR, PHD, EPA, etc.). All trainees, whom were declared as admitted after the individual examinations, received diplomas endorsed by the Ministry of Education and Research.

Secondly, the Code of Good Agricultural Practices was prepared during the period 2002-2003 under the leadership of the Ministry of Agriculture, Food and Forestry (MAFF), with the full collaboration of the Ministry of Environment and Water Management (MEWM).

The Code was approved in an extraordinary meeting of the Inter-Ministerial Committee for the Protection of Water Resources against Nutrient Pollution, chaired by Mr. Florin Stadiu, State Secretary.. Specialists from different ministries, institutes, and local agencies, were invited to participate in the meeting, and suggestions regarding the dissemination of the Code were retained.

The first version of the Code of Good Agricultural Practices was edited and printed in two volumes - 4,200 copies in Romanian and 500 copies in English. The Code was distributed, free of charge, through the MAFWE, to the local branches of the agricultural and environmental agencies, for the benefit of interested farmers. Based on this first edition of the Code of Good Agricultural Practices, the PMU team, in collaboration with USAID, issued in 2004 15,000 additional copies of "Guide of Good Agricultural practices for the small-size farmers from the nitrate vulnerable zones in Romania" in Romanian, also distributed to farmers.

The Code was then edited in 2005 for a second edition release, in order both to incorporate feedback received from the stakeholders (farmers, farmers associations, agricultural institutes, Romanian Academy for Agricultural and Soil Sciences, relevant Romanian government ministries etc.), as well as to reflect changes incurred in the Romanian and EU legislations, including considerable legislative changes in the agro-economic policy at the EU level,

At the same time, in order to respond to the National Program for Agro-Environment and create the premises for the access of the farmers and farmers' associations to the compensations offered within the E.U. programs for those complying with good agro-environment conditions, the use of a "Code of Good Agriculture and Environment Condition (CGAEC)" and a "Code of Best Farming Practices (CBFP)" have both been called for and prepared.

In this respect, the MEWM requested the Project's support for consulting services regarding the review of existing documentation and elaborating on the three above mentioned documents. The contents of the codes were

approved by the Inter-ministerial Commission for Applying the Action Plan for Waters Protection against Pollution with Nitrates from Agricultural Sources, and the TORs for this assignment were prepared by the PMU.

The “Code for Good Agriculture and Environment Condition” (CGAEC) was prepared in the period August-November 2005 and has been approved by both ministries involved in its elaboration and interpretation, through address no. 6172/22.11.2005, respectively no. 1268/LAV/25.11.2005, issued by MAFRD and MEWM, respectively.

And regarding the “Code of Best Farming Practices” (CBFP), a testing/demonstration program for environment-friendly agricultural practices has been implemented. The following practices were tested / demonstrated: nutrient management, shrub rows, narrow vegetative barriers, conservation tillage, tree planting and riparian buffer strips. Additionally, a survey monitoring the social effects of the program, including of the Code as well as the demonstration program, was conducted. The CBFP is in the process of being approved and will soon be printed in both Romanian and English.

Both the CGAEC and the CBFP have been published in the Romanian Official Gazette in order to vet and incorporate public comment.

RESULTS AND LEARNING

The impact of the Code of Good Agricultural Practices has been to form an explicit linkage between EU Directives and farm-level good agricultural practices through dissemination of a easy-to-follow format, which can then be readily applied by agricultural extension agents as well as by individual farmers. This has been a relatively small dollar-value intervention which has received lots of publicity and resulted in widespread farmer interest in and adoption of environmentally-friendly practices.

REPLICATION

This experience has already been replicated in a number of other projects in other countries, e.g. the Moldova Agricultural Pollution Control GEF Project, the Turkey Anatolia Watershed project, etc.. It is also being scaled up to the country-level through a follow-up project being prepared

to this Romania Agricultural Pollution Control GEF project.

Specific conditions needed to replicate successful dissemination of a Code of Agricultural Good Practices might include the top-down leverage of potential EU Accession (or similar regional standards-setting). In order to best replicate this experience, special attention should be paid to the bundling of a Code of Agricultural Good Practices with the “training of trainers” (i.e. technical assistance to relevant local technicians), testing and demonstration of the environmentally-friendly agricultural practices to be included in the Code, as well as a component on public awareness raising

SIGNIFICANCE

This experience is central to implementing nutrient reduction in transboundary waters. The Romanian government adoption of the Code of Agricultural Good Practices has both signaled to the EU that it is working to meet EU Directive requirements relating to water pollution reduction, as well as provided relevant guidelines to agricultural extension agents and farmers as to how to achieve farm-level gains in agricultural pollution reduction.

REFERENCES

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Romania Agricultural Pollution Control Project website:

<http://www.apcp.ro/index.php?section=all&screen=pagina&ID=23&lang=eng#>

KEYWORDS

- ◆ Agricultural Good Practice
- ◆ Nutrient Reduction
- ◆ Environmentally-Friendly Agricultural Practices
- ◆ EU Nutrient Directive
- ◆ Legislative Frameworks

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