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Building Community Acceptance for Constructed Treatment Wetlands

Abstract: The project's development objective is to improve the provision of water supply and sanitation services in the selected Albanian cities. Albania had no wastewater treatment facilities and raw sewage is discharged untreated into seas and rivers. Municipal waste water treatment is being put in place by the introduction of engineering wetlands. This however, poses questions of social acceptance within the community. The extent of social development participation in this project early on makes for a substantial and meaningful upstream consultation exercise, which in turn influences project design. Poverty and social aspects are covered in exemplary fashion, including careful and patient engagement of local stakeholders in a process that also has design impact. Favorable local media coverage of the consultation, assessment and communications process contributes to local stakeholder engagement in the project. Synergy between different units working in the team works well and management draws on the positive aspects of this project as an input to a larger country dialogue. The experience is significant for demonstrating that careful project preparation results in having an improved, efficient and sustainable waste water treatment facility even at the face of social acceptability challenges.

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Albania: Integrated Water and Ecosystems Management Project

Building Community Acceptance for Constructed Treatment Wetlands

Experience of the GEF sponsored

Albania: Integrated Water and Land Ecosystems Management Project

GEF Project ID: 1080, World Bank PMIS: PO75156

PROJECT DESCRIPTION

The development objective of the project is to improve the provision of water supply and sanitation services in the selected Albanian cities (Durres, Lezha, and Saranda) by introducing a new approach to utility management that builds upon private sector participation in the form of a performance and incentive based management contract.

The global environmental objective is to improve the health and habitat conditions of globally significant marine and coastal ecosystems along the coastline of Albania in an integrated manner. The objectives will be achieved through:

(i) **reduction of sewage pollution loads through the development and establishment of low cost water treatment technologies Constructed Treatment Wetlands (CTWs) producing environmental incremental benefits**;
(ii) promoting the establishment and improve the management of the Kune Vain protected marshland; and
(iii) improvement of the dialogue between public institutions and citizens through a public communication program as well as a program of dissemination and replication of project achievements.

The project is funded by a grant from the Global Environment Facility (GEF) Trust Fund of US$4.87 million, with expected contributions from the European Investment Bank (EIB) and project beneficiaries of about US$15.13 million equivalent.

This project will extend and deepen the ongoing Government reforms in the environmental sector as well as contribute to economic growth in those tourist areas whose continued prosperity depends heavily on a healthy coastal environment. The project will build on, and complement, the IDA-financed Municipal Water and Wastewater Project which aims to improve the provision of water supply and sanitation services in selected Albanian cities.

ISSUE AND EXPERIENCE

Albania has no wastewater treatment facilities and raw sewage is discharged untreated into seas and rivers. Degradation of the quality of transboundary water resources caused by land-based activities is therefore a very serious problem.

This project benefited from the World Bank's solid understanding of the country and its reform processes, the Albania National Environmental Plan, as well the Bank's sector and project work in water and energy sectors. Project preparation also took full advantage of parallel development within the Water and Wastewater Project of establishing the policy context (e.g., establishment of wastewater tariffs) and the implementing entity (project implementation unit (PIU) and new private sector operator already in place for one year) which handles the main component of this project.

Several clear best practice elements which positively influenced the operation's design and performance, of which four are worth noting:

1. The **extent of social development participation** in this project early on made for a substantial and meaningful upstream consultation exercise, which in turn influenced project design. This participation process included issues ranging from the feasibility of different wastewater treatment options, affordability and willingness to pay, to location and conditions of the proposed constructed wetlands. The investigations took care to disaggregate different social groups. To demonstrate responsiveness, one city was included at the request of stakeholders. The location of the outfalls was also moved and the selection of the CTW sites were validated or amended even though these did not represent optimality from a technical viewpoint. However, such adjustment made the project more

community friendly and convinced key local stakeholders that the Albanian government and the World Bank were taking their views into account.

2. **Poverty and social aspects** were covered in exemplary fashion, and included careful and patient engagement of local stakeholders in a process that actually had an impact on project design, and is expected to improve the chances for successful project implementation. The well-executed project Social Assessment provided a clear picture of the knowledge, attitudes and practices of the predominantly poor population to water and sanitation issues. It demonstrated the range of concerns and potential benefits, especially to the poor in polluted environment and provided clear and practical recommendations for project design and consultation process. Later, the Poverty and Social Impact Analysis (PSIA) which helped to benchmark good practice for this instrument and established baseline poverty data, has helped the policy dialogue. Both instruments will assist in participatory monitoring of poverty outcomes, and help promote sustainability and equity through acceptance of tariff increases and flexibility in their introduction. The PSIA will be institutionalized as a periodic M&E process and its design will allow it to have inputs in the policy arena. Content developed within the PSIA has helped to set standards for constructed wetlands as a new technical intervention for wastewater treatment.

3. **Favorable local media coverage** of the consultation, assessment and communications process has contributed to local stakeholder engagement in the project. The project has been able to communicate the institutional poverty focus of this project: that relatively poor medium sized municipalities in geographically appropriate situations can adopt a medium-term solution to water treatment that is workable, affordable and environmentally, socially and financially sustainable.

4. **Synergy between different units** working in the team has worked well and management has drawn on the positive aspects of this project as an input to a larger country dialogue. With regards to building community acceptance for CTWs, the need became apparent to engage social and communications experts early on. In response to questions about the number of social development specialists involved, the project confirmed that one social development specialist took the lead, and others were brought in as needed to add specific skills and experience when needed. This GEF project also benefited from the work on institutional reforms launched under a larger water supply World Bank lending project.

RESULTS AND LEARNING

The project allowed for adequate Waste Water Infrastructure in an area that lack from it by helping to improve wastewater services in the cities of Durres, Lezha and Saranda. Municipal waste water treatment was put in place by the introduction of an engineering wetland. This however, posed questions of social acceptance within the community. This matter was addressed by through the following mitigation measures:

a) for perceived increased population of mosquitoes: i) Elaboration of a mosquito management plans for the three areas using a combination of biological and chemical control measures. (ii)-creation all around the CTW sites a buffer zone wide not less than 40 m, with 30/20 m of bare strips and close to the CTW fence a tree belts 5/10 m wide with autochthonous tree species plantation;

b) for social risks associated to odors emanating from wetlands when water begin to stagnate: (i) Elaboration of an odors plans for the three areas using a proper water control measures to avoid the putrification process. (ii)-creation all around the CTW sites a buffer zone wide not less than 40 m;

c) for construction-related impacts on biodiversity, habitats and rare species: a comprehensive monitoring program for potential dangers to the wetland ecosystem, such as bioaccumulation, avian botulism and other avian diseases, vector problems, invasion of non-native plants and animals, debris accumulation.

Furthermore, the creation of an engineering wetland allowed handling the management of a waste water utility. These efforts were achieved with the help of both the Ministry and the World Bank as GEF Implementing Agency.

To conclude, initial issues with social acceptability, given that people were not used to engineered wetlands and their implications,

were successfully worked out using stakeholder involvement methodologies.

REPLICATION

(i) **Consult with local communities. The process in this project** was excellent; it provided inputs that improved project design*;*
(ii) Build p**roject design on solid sector knowledge and reforms already underway,** both in wastewater as well as environment;
(iii) Focus the p**roject on outcomes** and try to find indicators that are meaningful as well as amenable to quantifiable monitoring;
(iv) **Introduce** i**nnovative technical solutions** in the project design to keep costs affordable.

SIGNIFICANCE

To a large extent, the project became very timely and unique in the region. Careful project preparation has resulted in having an improved, efficient and sustainable waste water treatment facility within the face of social acceptability challenges. This project has promoted environmental management at the local level by setting up transparent and inclusive mechanisms at the municipality and community level for decision-making, implementation, and management of natural resources.

REFERENCES

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World Bank external website for project:
http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P075156

World Bank Project Appraisal Document:
http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187511&siteName=WDS&entityID=000012009_20040319151433

KEYWORDS

- Waste Water Treatment
- Constructed Treatment Wetlands (CTW)
- Engineered Wetlands
- Poverty and Social Impact Analysis (PSIA)
- Social Acceptability