



INTERNATIONAL WATERS RESULTS NOTES

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China: Second Shandong Environment Project

GEFID#: P090377, [GEF/World Bank Project ID# P077752: CN-GEF], Project Status: Active



1. Consultant services support (under Grant assistance) to develop: septic tank management system and operating rules; design of the septage treatment facility; specifications for vehicles and equipment; and database for development of the information system
2. Completion of procurement of the fleet of 11 vehicles comprising: two 2-ton tankers, six 6-ton tankers, two 10-ton tankers and one sewer jetting unit.
3. Septic tank Management Office set up under the Yantai Municipal Government

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PROJECT OBJECTIVE

The Global Environment Objective of the GEF activity is to reduce land-based pollution along the Yantai coast and the Bohai Sea through development of a pilot septic tank management system in Yantai and dissemination of the Yantai model in Shandong Province and other parts of China.

RESULTS: PROCESS

The technical assistance consultant services helped complete: (i) septic tank management policy and regulations; (ii) technical specifications for vehicles and equipment and septic tank emptying vehicles; (iii) design of a joint septage collection and joint treatment facility; and (iv) development of a database and information system to monitor and evaluate program.

The vehicle fleet comprises vacuum suction tankers and a sewer jetting unit have been procured. Three vacuum tankers have been used as a trial. The septic tank emptying program has not started because the joint septage mixing facility has not been constructed yet.

A Septic Tank Management Office, along with staff, has been formally established in the Yantai Municipal Government. The number of septic tanks under the program has been reduced from the originally planned 1,900 to 1000. A decision has been made not to levy a charge for emptying septic tanks, which will be financed by the Yantai Municipal Government.

INDICATOR#1: Pollution discharge to Bohai Sea reduced [Target 1,700 tons/year of BOD]
No results are available; the join sewage-septage mixing facility has not been constructed yet.

RESULTS: STRESS REDUCTION

INDICATOR#1: Volume of septage collected in Yantai [Target 1,000 m³/year]
No results available yet.

INDICATOR#2: Volume of septage jointly treated with wastewater in Yantai [Target 1,000 m³/year]
No results available yet.

RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

INDICATOR#1 (as in your results framework) [Please indicate the target in brackets]
Describe in one sentence the results in this area. Please quantify the results whenever possible.

INDICATOR#2 (as in your results framework) [Please indicate the target in brackets]
Describe in one sentence the results in this area. Please quantify the results whenever possible.

Results Note

History of IW Results

- Consultant services for the Yantai Septic Tank Management Demonstration have progressed well, and most of the key outputs have been delivered.
- The area covered by the pilot is smaller, and contains 1,080 septic tanks, compared to the 1,900 estimated at project appraisal.
- The vacuum tanker vehicles, imported in March 2010, have not received certification and license to operate in China. Currently, a temporary permit has been granted to enable their use, until permanent licenses are granted.
- Three (out of ten) septic tank (ST) vacuum tankers have started trial operations on March 15, 2011. The vehicle fleet comprises two 2-ton tankers, six 6-ton tankers, two 10-ton tankers and one sewer jetting unit. Present plans are to put all tankers into service by the end of 2011.
- The 100 m³ tank and associated grit chambers and screens, to receive septage, are still under design. Meanwhile, septage from trial operation is emptied temporarily into a 25 m³ tank with screens, from which the septage is pumped to sewers leading to the Xinanhe wastewater treatment plant (WWTP), at a controlled rate (one ton/10 minutes) to avoid complications at the WWTP. A special design requirement is to incorporate odor control because of the location of this facility in the hi-tech zone.
- The regulations for operation are pending approval by the Legal Department.
- Three manuals have been prepared: Operation and Maintenance Manual on Septic Tank, Standard Operation Procedures of Septic Tank Sector Service, and Operation and Maintenance Manual on Septage Collection Station.
- The Yantai Municipal Government (YMG) has decided to finance the septic tank emptying for the time being.
- The Septic Tank (ST) Management Office has been established in the Yantai Drainage Administration Bureau, to perform the regulatory functions, Based on the organizational chart, eleven staff has been deployed.
- Emptying of septic tanks will be contracted to a company engaged by the Septic Tank Management Office.
- The information system database has been set up, and the ST identification coding has been completed. Data entry will be done when operations commence.
- The expenditure from the GEF grant is about US\$3.5 million; the same figure reported in December 2010. Expenditures are being made with own funds, and the incremental operating cost category is not being utilized.

Pending Matters. The following matters were pending as of May 2011:

- Completion of the construction of the septage receiving facility
- Full utilization of the suction tanker vehicles to cover the 1,080 septic tanks in the pilot area;
- Completion of the septic tank management information system

- Approval of regulations and budget and staffing matters by the Yantai Municipal Government
- Compilation and reporting on the total project cost, including both the GEF grant and counterpart funds, to illustrate the Yantai Municipal Government commitment and the amount of other funds leveraged by the relatively small GEF grant.

The World Bank requested a time-bound action plan to complete the pending tasks.

Monitoring, Evaluation and Decisions (Required Before Grant Closure)

- Policy on the future of the program after the GEF grant is expended, i.e., whether to continue as a government service or enable the private sector participation, including how the transition should be made to the private sector;
- Evaluation of the utility of septic tanks in areas where piped sewer systems are connected to wastewater treatment plants; and
- A policy decision to amend the building code deleting the requirement for septic tanks where sewer systems are available.