



▶ WHAT IS THE DIFFERENCE MADE?



▶ WHAT ABOUT THE VALUE FOR RESOURCES SPENT? WHAT BETTER COULD HAVE BEEN ACHIEVED?



▶ WHAT IS THE LEVEL OF SATISFACTION OF THE BENEFICIARIES?

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Yalova and Bolu Sewerage Projects, Turkey

Ensuring Sanitation, Protecting Environment

Prior to IDB intervention, both the Turkish cities of Yalova and Bolu faced lack of adequate sewerage networks and wastewater treatment facilities. Untreated wastewater was being discharged directly to the sea, polluting the environment.



Primary Wastewater Clarifier in Yalova

What was planned?

It was planned to:

- Spend US\$ 74 million, with IDB financing US\$ 52 million through Istisna'a and Loan.
- Complete the project by May 2009, in 36 months.

Targeted outputs were:

- Construction of two wastewater treatment plants In Yalova.
- Construction of one wastewater treatment plant In Bolu.

In order to:

- significantly increase coverage of sanitation services in Yalova and Bolu.

And ultimately to:

- Improve environmental conditions through the reduction of water and coastal pollution

What actually happened?

Actually:

- US\$ 53 million was spent, 30 % lower than appraisal.
- The project was completed in 49 months, incurring an implementation delay of 24 months, including start-up delays of 13 months for Yalova and 21 months for Bolu.

And the outputs were:

- In Yalova, one treatment plant was constructed out of the two planned, whereas in Bolu, one wastewater treatment plant was constructed as planned.

And the outcomes were:

- More than 300,000 people in both the cities were connected by sanitation services (157,000 in Yalova and 145,000 in Bolu) with sewerage connection rate reaching 95%, up from 85%, in Bolu, and 85%, up from 55%, in Yalova.

And ultimately led to:

- The plants have been operating in compliance with the environmental protection limits.

What went right?

- In both Yalova and Bolu wastewater treatment plants, proper operation and maintenance systems as well as sufficient technical expertise and manpower to operate and sustain the plants were in place.
- Both the effluent treatment plants are fully compliant with the environmental protection limits related to discharge of wastewater.

What could have been better?

- Both the projects suffered from inappropriate design in terms of sizing and allocation resources.
- In Bolu, the plant has been consistently receiving an average of 65,000 m³/day wastewater, 23 % higher than its maximum capacity of 53,000 m³/day. Whereas, in Yalova, the plant is receiving only 50% of its treatment capacity.



Some untreated water is still joining the river in Bolu

Underestimation in one city, overestimation in the other city!

- The scope of the project in Yalova was reduced during implementation, and in Bolu more municipalities that were not accounted for during appraisal were connected to the treatment plant, which led to premature capacity saturation.
- Yalova capacity was over-estimated and more than needed resources were allocated.
- On the other hand, Bolu capacity was under-estimated and less than required resources were allocated for the plant. This was due to the lack of quality at entry. A comprehensive feasibility analysis should have been carried out by IDB prior to the approval of the project.