Evaluation Summary

Reconstruction of the urban drainage system of Banda Aceh

Country: **Indonesia** | Sector: **Sanitation**

Evaluator: **Hydroplan**
Date of the evaluation: **January 2017**

Key data on AFD's support

Projet number: CID 3004

Amount: €36.8 million in sovereign loan

Disbursement rate: 98%

Signature of financing agreement: September 2008

Completion date: March 2012 (construction), July 2015 (loan closure)

Total duration: 19 months

Context

After the 2004 tsunami the drainage system in Kota Banda Aceh was largely destroyed.

The project made a substantial contribution to the reconstruction and rehabilitation of the drainage system.

Actors and operating method

- **The contracting authority** was Badan Rehabilitasi dan Rekonstruksi (BRR). It is a rehabilitation and reconstruction agency for post-tsunami projects. During the project, the contracting authority became PU Province Aceh.
- **The management contractor** was Egis.
- **The project management unit** was PU Province Aceh.

Objectives

Expected outputs

- **The construction and improvement of drainage channels** spanning 39 km.
- **The cleaning of drains** spanning 12 km.

Performance assessment

Relevance

The project answered to a **real and urgently felt need of the people of Kota Banda Aceh,** and was consistent with policy priorities and mid-term strategies of the municipal administration.

The design of the project clearly outlined the resources required to achieve the desired improvements and project resources were **consistent** with these requirements.

The project was prepared according to Indonesian and international design criteria. Climate change adaptation was not incorporated in the project designs and no *ex-ante* analysis was made of the differentiated effects of the project on men and women.

Effectiveness

Overall approx. **70% of the envisaged project output was attained**. Most of the project zones were covered, with the exception of three pockets where **flooding** remains a problem. The main reason for changes to the project layout were the **changing requirements** (coverage of drains by concrete slabs) from the municipality and problems with the **timely acquisition of the necessary land**.

With the exception of the **adverse effects** on fisheries in the Titi Panjang basin there are **no lasting negative environmental effects** of the project.

Efficiency

The project was **efficiently implemented**. There was a **high degree of flexibility** in project implementation and **construction was completed** in 19 months (against 18 months planned). Costs per direct beneficiary were relatively high, but not excessive.

Impact

The impact of the project on the communities in Kota Banda Aceh was **positive**. Losses due to flooding have been substantially reduced. **Economic activity and land prices** in the areas previously affected by flooding have markedly increased. In some pockets flooding still occurs, but **less frequently** and with **lower flood depths**.

Sustainability

The drainage system constructed with AFD support was in operational condition in 2017, with the exception of the Titi Panjang regulator. The **organisational capacity** of the PU unit responsible for operation and maintenance of the system is **not sufficient** for adequate operation and maintenance. Cooperation with Sanitation partly alleviates this problem.

The **budget available** for operation and maintenance **is below what would ideally be required** for such a system.

Added value of AFD's contribution

AFD allowed a **high level of flexibility** to project implementation authorities. There was **limited capacity strengthening** included in project design and **AFD did not contribute expertise to the planning and design of the project**. This was also not required because the project was planned and designed under a separate contract with a consortium of well-known consultancy firms.

The appraisal by AFD appears to have been somewhat disconnected from the technical studies executed by the consortium of consultants.

Conclusions and lessons learnt

The project had a significant **positive impact** on envisaged beneficiaries, especially on people living in lower lying areas of Kota Banda Aceh, thus affecting almost **22,000 people in 2006 and 34,000 people at present**. The positive impact on people included **reduced damages to household goods and property**, **improved health** and **better accessibility** during the wet season.

Updating plans for urban infrastructure is required. The study by Sea Defence Consultants has played an important and positive role in the rehabilitation of the drainage infrastructure of Kota Banda Aceh. However, the study is now almost 10 years old, and is based on a post-emergency situation. Since 2008, important changes have occurred in Kota Banda Aceh.

Operation and maintenance of project infrastructures must be considered already during appraisal. **Sustainability** of the drainage system constructed with the support of AFD **remains a challenge**. The **organisational capacity** of the unit responsible for operation and maintenance is **limited**, and the **budget** allocated is **insufficient**. With some exceptions, the drainage system is still in working order, but **damages were observed** that in the future may impede adequate drainage.