

- Methane Capture from Landfill, Chile
- Run-of-River Hydropower in Ceyhan Basin, Turkey
- Biomass Cogeneration in Sao Paulo, Brazil



## Project Summary

### Methane Capture from Landfill, Chile

#### Sources of Greenhouse Gas reduction:

This project captures and destroys methane gas - a powerful greenhouse gas. The methane is collected from two large landfills in central Chile and flared to prevent its release into the atmosphere, producing significant emission reductions.

#### Why we like it:

This project showcases methane capture technology and the great emission reductions that can be achieved with it, with no negative impact on the environment. Additional emission savings in its second phase by using the captured methane as a source of energy for electricity, displacing the use of fossil fuels.

The project contributes to Chile's overall sustainable development. As a result of methane capture the risk of potential fire or explosion is significantly reduced. It also avoids the bad odours associated with air pollution, and employs local staff to manage the methane capture operations.

### Run-of-River Hydropower in Ceyhan Basin, Turkey

#### Source of Greenhouse Gas Reduction:

This renewable energy project uses run-of-river hydropower to reduce greenhouse gas emissions by displacing electricity on the grid produced by higher-emission fossil fuel sources. This also reduces ambient air pollution sources, such as sulphur and nitrous dioxides associated with fossil fuel combustion.

#### Why We Like It:

Unlike traditional hydroelectric dams, this run-of-river project uses a weir to divert only a portion of the river's flow. A natural drop in the terrain drives a turbine at the bottom of a hill, which reduces the social and environmental disruptions normally associated with traditional hydropower. International Rivers Network, an advocacy group that opposes large dam construction, actively supports the use of run-of-river projects.

The project creates employment, both directly and through procurement of services and equipment. The supply of hydroelectricity also stabilises the regional grid, reducing power shortages common in Turkey and supporting local enterprise.

### Biomass Cogeneration in Sao Paulo, Brazil

#### Type of Greenhouse Gas Project:

Energy Efficiency

#### Source of Greenhouse Gas Reduction:

This project funded the installation of a new biomass boiler which uses waste wood from the pulp and paper factory to generate electricity. This displaces the consumption of heavy fuel oil and therefore reduces greenhouse gas emissions. The new boiler produces 60 tonnes of steam per hour which drives a turbine to generate 8 MW of electricity. In addition, further emission reductions are achieved by limiting waste wood going to landfill.

#### Why We Like It:

In addition to reducing carbon emissions, this project provides a number of other social and environmental benefits. It avoids employee exposure to heavy fuel oil, which is both highly inflammable and toxic, and conserves valuable landfill space. Despite the biomass boiler providing numerous environmental and social benefits, carbon investment was essential to making the project economically feasible. This project is an excellent demonstration of how carbon finance can assist developing countries in the transition to a lower-carbon economy.

#### Independent Assurance:

The carbon offset credits have been verified by an accredited third party auditor and are Voluntary Carbon Standard (VCS) certified.