



## Energy from waste gas, Indonesia

This project is aimed at improving the efficiency and lowering the environmental and climate effects of an oil field on the island of Sumatra. At the same time, the local population of this remote region is supported to ensure sustainable development.

### Location



The project is located in the Southern part of Sumatra, Indonesia's largest island. The tropical project region is sparsely populated, with most people living in the larger cities of Medan and Palembang, close to or on the coast. A considerably way of oil exploitation as in this project is exemplary for sustainable economic development in Indonesia, which hosts South Asia's largest oil reserves.

### Project



The project activity involves the improvement of an existing oil production site. In addition, the remote, sparsely populated region and its communities profit from job creation, investments into the local educational system and donations to people in need.

Technically, the project captures associated gas, a by-product of oil production that would otherwise have been flared. Modern facilities have been installed to clean the gas and process it into dry gas and liquefied petroleum gas (LPG), fuels with a significantly lower emission factor than the still widely used kerosene. By this, the associated gas is not only kept from being released into the atmosphere, it now also replaces dirtier fuels in the regional market. As a result of the flaring reduction activity, the oil field's greenhouse gases (GHG) emissions are significantly reduced. Locally, the mitigated flaring and the utilization of dry gas and LPG for fuel result in better air quality.



By providing a cleaner alternative source of energy at more affordable cost, the region's increasing power demand can be met, sustainable development of the local economy is supported, and general awareness for clean energy is raised among workers, local student and the general public.

## Project achievements



### Socio-economic impact:

- The project owner organizes a community program called *Education for Kids* covering Ethics, English & Art of local culture. Classes are given 3 times a week, with a film day being organized every two weeks covering moral and environmental education (e.g. forest protection).
- As a good corporate citizen, the project owner donated to an orphan elementary school in the neighbourhood, enabling it to purchase books and food for school lunches.
- Several local elementary and high schools were provided with books and school uniforms.
- Regular food donations are given to the underprivileged during the Moslem Holy Day of Sacrifice.
- Internships are provided to students from the local technical high school (Sekolah Teknik Menengah).
- Regular sport events are organized by the project owner to promote an active and healthy lifestyle, e.g. walking competitions and football tournaments in Bonot village.
- The produced LPG is replacing kerosene in household use, thus improving air quality and reducing respiratory diseases associated with grime emissions. Indonesia set up an according program to support fuel switch away from kerosene in 2007, making this .

### Environmental impact:

- The displacement of fuel oil with dry gas and LPG reduces the country's dependency on imported fossil energy, which increases energy security and foreign exchange savings.
- The project activity leads to significantly increased local air quality through the reduction of flaring.

## Checklist Projekt 300329



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|--------------------------------------|---|
| ✓ Additionality and permanence:      | according to the rules of the VCS         |
| ✓ 3 <sup>rd</sup> party verified:.   | by TÜV Nord                               |
| ✓ Transparency:                      | provided by Markit Environmental Registry |
| ✓ Annual CO <sub>2</sub> -reduction: | 100,000 tCO <sub>2</sub> e                |
| ✓ Social and environmental benefits: | as documented in our database             |
| ✓ Marketing material:                | pictures available                        |

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