

# The Reality of Aid

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## Myingyan Natural Gas Power Project



COUNTRY  
Myanmar

INCLUSIVE DATES OF IMPLEMENTATION  
2015 - Unknown

STATUS  
Approved/ For implementation

# Myingyan Natural Gas Power Project

The Project entails the construction and operation of a 225 MW combined cycle gas turbine power plant in Myingyan, approximately 500 km North of Yangon and 90 km West of Mandalay. The project will improve the reliability and stability of Myanmar's power supply at a competitive tariff, while addressing power shortages and helping avoid future brownouts that hinder economic growth. As the first competitive tender for a gas-fired independent power producer project in Myanmar, the successful financial close and operation of this project is expected to mark a major milestone in the power sector. ADB's substantial participation will help demonstrate the benefits of improving power supply through low-cost PPP arrangements, and signal to the government, multinationals, and international financiers that private sector-led infrastructure investments can be undertaken successfully within sectors with sound legal and regulatory frameworks.

M-CCGT contract was granted through a competitive international tender process, and was built and is being operated by an 'independent power producer' (IPP) – the Sembcorp Myingyan Power Company, a Myanmar-based company with Singaporean owners created specifically to implement this project. The Project Sponsor, granted the tender for the project in April 2015, is Singapore-based Sembcorp Utilities. Sembcorp Utilities is a wholly owned subsidiary of Sembcorp Industries, a publically-traded company of which the Singapore government's sovereign wealth fund owns 49%.

Located in Myingyan Township of Mandalay Region, the M-CCGT project is governed by a 22-year Build-Operate-Transfer (BOT) agreement and a Power Purchase Agreement (PPA). The PPA stipulates the terms under which the Sembcorp Myingyan Power Company will sell, at a profit, all of the electricity generated by the M-CCGT to the Government of Myanmar for the duration of the 22-year lease. Previously, State entities took the lead role on all energy sector infrastructure projects. Implemented as part of the ADB's wider Myanmar Energy Master Plan, the stated aim of the project is to improve the reliability and stability of Myanmar's power supply, while addressing power shortages and helping avoid future brownouts. This investment project is expected set precedent for future tenders from IPPs in Myanmar's energy sector.

The M-CCGT project is also the first AIIB-financed project in Myanmar, and will be important to watch considering the AIIB's key role in the current roll-out of China's "one belt one road" initiative for which Myanmar will be important as a 'land-bridge' to the Bay of Bengal, South Asia, the Middle East and Africa.



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NAME OF IFI/DFI  
**Asian Development Bank**  
(also supported by AIIB, IFC, and MIGA)



TOTAL COST  
**ADB: USD 262 million, AIIB: USD 20 million, IFC: USD 57 million, MIGA: USD 250 million**

NATURE OF FUNDING  
**Co-funding**

TYPE OF ASSISTANCE  
**Loan**



PRIVATE SECTOR PARTNER/S  
**Sembcorp Utilities Pte. Ltd. (SCU)**

CSO PARTNER/S  
**None**

OTHER PARTNER/S  
**None**

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## POSSIBLE/EXISTING IMPACTS ON COMMUNITIES/HUMAN RIGHTS

The physical displacement of small businesses due to land acquisition for the water supply and overhead power transmission line may impact the right to livelihood for the 8-10 families living in the project area. Additionally, according to the IFC's Social Impact Assessment, agriculture is the main source of income for local villagers, and much of the pipeline route "typically forms a part of a large plot of land" used for seasonal crop production. To the extent that people rely on the crops and fruit trees that will be removed during project construction as a source of livelihood, that right may be impacted.

To the extent that local villagers use the land along the water pipeline to grow crops for their households, the right to food may be impacted when this land is acquired by the project.

Without adequate safeguards, there is a risk that hazardous waste generated by the project may contaminate surrounding groundwater and surface water sources used by local villagers for consumption and household activities.

The influx of construction workers and in-migration may introduce and increase the spread of communicable and sexually transmitted diseases. According to the Environmental and Social Impact Assessment, "Myanmar has one of the highest rates of HIV/ AIDS infection in Southeast Asia, which increases the risk of HIV/ AIDS being transmitted." Tuberculosis is also prevalent in the villages surrounding the project area. Additionally, heavy rainfall during the wet season in Myanmar may create vector habitats where construction activities create trenches and other areas of standing water. As a result, project activities may contribute to an increase in vector borne diseases, with malaria being a notable risk. According to project documents, the populations most likely impacted by community health risks are: "Sa Khar, Hnan Ywa and Tha Pyay Thar villages and the steel mill workers."

According to project documents, safety-related issues include: traffic accidents, community member injuries due to the presence of new infrastructure, and hazardous material and waste management.

During the construction process, the 600-900 construction workers who will be on the project site may be at risk for injuries and illnesses. Tuberculosis, vector-borne diseases like malaria, and sexually transmitted diseases such as HIV/AIDS are of particular concern. According to the Social Impact Assessment, the client will "implement a community health management plan and an occupational health and safety plan in consultation with relevant stakeholders (e.g. local health practitioners)" to ensure that worker illnesses and injuries are handled properly.



## POSSIBLE/EXISTING IMPACTS ON THE ENVIRONMENT

Construction is expected to create 27,803.65 tonnes carbon dioxide-equivalent, and operation of the combine cycle gas turbine will emit approximately 731,000 tonnes carbon dioxide-equivalent annually. According to project documents, the construction activities with the most significant “potential air quality impact is fugitive dust emissions from the power plant site.” During the operational phase, the most significant air quality impact is “power plant stack emissions due to combustion of natural gas.” Air quality is already degraded in the project area due to the adjacent presence of an operating steel mill also undergoing construction and an operating natural gas fired reciprocating engine power plan. Levels of nitrogen oxide and particulate matter are already high, and “[c]onstruction activities will temporarily contribute to increased levels of dust.”

Of the anticipated sources of wastewater discharges and runoff, “the most significant by volume is considered to be sanitary wastewater which will be generated at an estimated rate of 48,000 liter/day.” The most significant source of emissions during the operational phase “will be the power plant’s closed circuit cooling systems blowdown which will generate approximately 70.5 m<sup>3</sup>/hr of cooling water discharge, followed by sanitary wastewater from operations (from an estimated workforce of 48 employees).”

The project documents identify four “noise sensitive receivers” that may be affected by the use of powered mechanical equipment, as well as other construction and operation noise sources: “a permanent steel mill construction worker (EPC) accommodation in Taung Tha Township (approximately 1890 m to the south of the project site); a monastery and pagoda in Taung Tha Township (approximately 2400 m to the south); Hnan Ywa Village in Taung Tha Township (approximately 1960 m to the south-east); and Sa Ka Village in Myingyan Township (approximately 980 m to the north-east).” Vibrations also may damage community infrastructure.

Hazardous waste materials potentially generated during the construction and operational phase include: “used paint, engine oils, hydraulic fluids, spent solvents, spent batteries, and other potentially hazardous materials generated from construction equipment maintenance and repair.” Hazardous materials will also be stored on site, including: “liquid fuel (diesel), gas cylinders, hydrochloric acid, sulfuric acid, caustic soda, sodium hypochlorite/chlorine, solvents, lubricating oils, transformer oil and other chemicals.”

Waste water discharge from the MCGT plant will also flow into the Irrawaddy. Containing harmful chemicals or other kinds of pollutants, villagers worry that waste water could kill fishes.



## IMPACTS ON OTHER ASPECTS

Local fishermen expressed concerns that a reduction in fish stocks would significantly impact their lives. Fishing is their main livelihood, so it would be difficult to make a living if fish population in that section of the Irrawaddy decreases due to waste water discharge from the project. Fishermen began noticing a decrease in fish catch since the project test run started in January 2018.

### **Does the project have an environment/social impact assessment?**

Yes, and accessible by the public.

### **Does the project target the SDGs?**

No.



## COMPLIANCE/NON-COMPLIANCE TO DEVELOPMENT EFFECTIVENESS (DE) PRINCIPLES

### Focus on results

The labour-related issues of significant concern to local people are: limited job opportunities for local people, gender discrimination in hiring, missed ADB local employment targets, missed ADB local procurement targets, availability of skills training for affected communities, employment provisions for vulnerable households, occupational health and safety violations, and holiday and overtime pay discrepancy. At the women's focus group discussion, local women complained that "all of the daily labourers hired by SMPC are men. There were no women hired at all!" While IFI Watch Myanmar did not find any evidence of an official discriminatory hiring process, in practice, there appeared to be no effort at gender parity in the hiring of employees during the construction phase. Many local people complained that permanent jobs were too few and the payment for skilled positions were too low. Locals requested but did not receive skills training so that they would qualify for these permanent positions, and now that the construction phase has come to an end, even the precarious daily labourer positions have disappeared and the operation phase will require very few local hires.

Field research conducted for this database found that overall, the communities impacted by land acquisition for the water pipeline and transmission line right-of-way were properly informed and were generally satisfied with the compensation they received. IFI Watch Myanmar has found that the following issues related to involuntary resettlement and economic displacement are of concern to local people: fairness and transparency in the government-led land acquisition and compensation process, 'legacy' land confiscation issues related to the Myingyan Steel Mill No. 4 site, disrupted access to farmland from the 14km water intake/discharge pipeline right-of-way, disrupted access to farmland from the 3km Myingyan substation transmission line right-of-way, and disrupted access to farmland from the 1km Myingyan Steel Mill transmission.

### Inclusiveness

During the FGDs, some people complained that they felt like they weren't given adequate information at the 2015 community consultations. They said they felt that the company was either hiding details from the community, or even actively trying to 'bully' the community by framing the information in a certain way. Other people we spoke to during the FGDs and interviews stated that they did not attend the 2015 consultations. They said that they felt like only certain 'pro-project' people were invited to the consultations, and that the affected communities were not consulted widely in a truly representative manner.



## Transparency and mutual accountability

Overall, local people felt that information about the M-CCGT project was not made accessible for them. Detailed project information was not available in Burmese language. Project documents were massive (the ESIA report alone is over 1,000 pages long) and were too dense to be understood by regular people. The project documents often contained large amounts of specialist terminology and jargon, and the significance of the findings were not adequately explained in basic language.

During the FGDs, one participant requested that there be transparency about how much money was spent on compensation in total, with a breakdown of how much each land holder and each village received, so that people could be confident that they received fair compensation.

Regarding electrification, some villagers complained that there is no transparency about how the electricity generated by the M-CCGT plant is going to be utilized. Many people said that they want the electricity to be made available to local villages that are not currently connected to the national grid, although this is more an issue of government transparency rather than directly related to the M-CCGT Project Sponsor.

In order for the affected villages to have full transparency regarding the grievance redress mechanism (GRM) process, the Project Sponsor should make public all of the GRM engagement it has received since the publication of the ESIA report in 2015, as well as show how they responded and what steps they took to find a solution to the grievance.



### SOURCES:

<https://www.adb.org/projects/48368-001/main#project-pds>

<http://www.ifwatchmyanmar.org/wp-content/uploads/2018/11/IFIWM-M-CCGT-Briefer-high-res.pdf>

<https://ewsdata.rightsindevelopment.org/projects/0007-myanmar-myingyan-power-plant-project>

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