THE CIREBON 2 COAL POWER PLANT AND THE EQUATOR PRINCIPLES
A BRIEFING – MARCH 2017

This briefing assesses whether the Cirebon 2 project in Indonesia is, or can still be brought into compliance with the Equator Principles, a bank-led voluntary framework for assessing and managing social and environmental risks when financing large infrastructure projects. It concludes that the project carries significant risks for local communities and the environment that were not properly assessed and mitigated. The planned power plant will also not use best available technology to reduce air pollution, as required. Finally, affected communities have not been properly informed and consulted on the project, as prescribed by the EPs. **Current financiers of the project, Crédit Agricole, ING Group, Mizuho Financial Group, SMBC and MUFG, are all Equator Principle signatories, should therefore refrain from financing the project.**

1. CIREBON 2: A SOCIAL AND ENVIRONMENTAL DISASTER IN THE MAKING

The Cirebon Coal-Fired Power Plant is located in West Java, Indonesia. The entire Cirebon project consists of Unit 1 (operational since 2012), Unit 2 (planned, currently securing finance) and Unit 3 (in early planning phase). The 660 Megawatt Unit 1 was developed by the consortium Cirebon Electric Power (CEP) PT[1], that commenced with constructions in 2007, with commercial operation starting in July 2012.

The now planned Cirebon Unit 2 will have a capacity of 1,000 megawatt and is planned to be operational by 2020. For Unit 2, PT Cirebon Energi Prasarana (CEPR)[2] entered into a 25-year Power Purchase Agreement (PPA) with the Indonesian state power utility Perusahaan Listrik Negara (PLN).

In early May 2016, a Memorandum of Understanding (MOU)[3] was signed between Marubeni Corporation, Korea Midland Power, Samtan and PT Indika Energi Internasional to also build Unit 3. However, it remains to be seen if Unit 3 is going to proceed, given the local opposition and the growing worldwide mobilisation against the construction of additional coal units at Cirebon. This briefing therefore focuses on Unit 2 of the Cirebon Coal-Fired Power Plant.

Financing of Cirebon-2

The construction of Cirebon Unit 2 requires an investment of roughly USD 2.1 billion, which is planned to be financed with a debt-to-equity ratio of 80:20. A group of commercial banks and a group of Export Credit Agencies (ECAs) plan to lend on the deal.

JBIC and Nexi, both of Japan, and Exim Bank of Korea will provide 60% of the debt required, USD 960 million, with each ECA providing USD 320 million. The commercial lenders will then provide the remaining 40% of the debt required, around USD 640 million. The commercial banks involved are Credit Agricole, ING Group, Mizuho Financial Group, Sumitomo Mitsui Banking Corporation (SMBC)

[1] The consortium CEP consist of Marubeni (32.5%), Korea Midland Power (27.5%), Samtan (20%), and Indika Energy (20%). The information has been extracted from IJGlobal. CEP's website: http://www.cirebonpower.co.id/
[2] CEPR is a consortium of Marubeni (35%), Indika Group (25%), Samtam (20%), Koreo Midland Power (10%), and Chubu Electric Power (10%). This information has been extracted from IJGlobal.
[3] The MOU was signed by Marubeni, Korea Midland Power, Samtam, and PT IMEI. Link to the MOU: http://www.marubeni.com/news/2016/release/20160517English.pdf

and Mitsubishi UFJ Financial Group (MUFG). Each bank plans to provide USD 128 million. All commercial banks are Equator Principles signatories. [4]

Impact of the project

The ongoing worldwide mobilisation against the construction and financing of Unit 2 is driven by the immense social and environmental impacts expected from the proposed Unit:

Health impact

Coal power plants are a significant source of air pollution, filling the air with toxic pollutants that enter deep into people's lungs. Greenpeace, in a study conducted together with Harvard University, already established in 2015 that pollution from coal power plants in Indonesia leads to an increased risk of lung cancer, stroke, heart diseases, and respiratory diseases.[5] The study found that existing coal-fired power plants in Indonesia cause an estimated 6,500 premature deaths every year. Each additional large new power plant, such as Cirebon Unit 2, is expected to result in the premature death of an extra 600 Indonesians every year.

Loss of livelihoods

Since the construction and operation of Cirebon Unit 1 Plant in 2007, local communities have suffered heavily from ongoing adverse environmental impacts of the plant. The people residing at villages near the plant have traditionally relied on small-scale fishing, shellfish harvesting, salt making, production of terasi (shrimp paste) and farming for their livelihood. Due to Cirebon's pollution, use of water resources and impacts on the natural environment, these livelihoods are all but gone for residents.

According to testimonies from local communities, fish and shrimp catches decreased by more than half since the beginning of the project in 2007. The productivity of salt pans near the project site has also deteriorated since Cirebon Unit 1 began its operations, with representatives reporting that some 500 laborers in the affected communities have lost their livelihood. These impacts have been reported by the community organisation Rapel (Rakyat Penyelamat Lingkungan, or Environment Defender Community) Cirebon.[6]

Environmental impact

As pollution from coal power plants poses a significant threat to human health, it does so even more to the environment. A coal power plant heavily contaminates water and air, and with that entire ecosystems. The burning of coal emits hazardous air pollutants that can spread for hundreds of kilometres. Pollutants include particulate matter, sulphur dioxide, nitrogen oxides, carbon dioxide, mercury and arsenic. Some of these pollutants react in the atmosphere to form ozone and more fine particulates. The emission of sulphates and nitrates also leads to acid rain, which damages streams, forests, crops and soils. Coal plants also consume vast amounts of water for cooling and steam production. A typical 1000 MW coal plant uses enough water in one year to meet the basic water needs of 500,000 people.[7]

Even more important is the impact of new coal power plants on the world's climate, with this in turn impacting on the region. The Cirebon region is already now feeling the effects of climate change in the form of a rise in sea level, increased flooding of the coastal area, and increased drought during

[4] http://www.equator-principles.com/

[5] Greenpeace, *Human Cost of Coal Power: How coal-fired power plants threaten the health of Indonesians*, August 2015. See here: http://www.greenpeace.org/seasia/id/PageFiles/695938/full-report-human-cost-of-coal-power.pdf

[6] Letter from Rapel Cirebon to JBIC, April 2016, available upon request.

[7] Endcoal.org, *The Dirty Facts about Coal*. See here: http://endcoal.org/wp-content/uploads/2014/09/EndCoalFactSheet_WEB.pdf

the long dry season. About 13 per cent of the total area in Cirebon city is at heightened risk from flooding during high tides and high rainfall. In addition, the impacts of climate change threaten agricultural production as drought causes extensive crop failure in the Cirebon district.[8]

2. THE EQUATOR PRINCIPLES

The Equator Principles (EPs)[9] are a risk management framework created in 2003, and now adopted by 89 financial institutions[10] worldwide for assessing, determining and managing environmental and social risk in financing projects. Adopting banks commit themselves to assess and manage the potential social and environmental impacts of projects they consider to finance, by integrating the EPs in their internal environmental and social policies, procedures and standards for financing projects.

The goal of the EPs is to guarantee that the projects financed and advised on "are developed in a manner that is socially responsible and reflects sound environmental management practices". The Equator Principles Financial Institutions (EPFIs) state, by becoming a signatory, that they "recognise the importance of climate change, biodiversity, and human rights, and believe negative impacts on project-affected ecosystems, communities, and the climate should be avoided where possible". By adopting the EPs, a bank therefore underlines its own responsibility as financier to promote environmental and socially responsible development. EPFIs also promise that they "will not provide Project Finance or Project-Related Corporate Loans to projects where the client will not, or is unable to, comply with the EP".

The EPs consist of ten successive steps (principles) that together form the risk framework. Both the EPFI and the project sponsor should follow these steps, that run from project categorisation till reporting. If carried out properly, bank and project sponsor should have all the mechanisms in place to asses, prevent, mitigate and manage any social and/or environmental impact associated with the project.

3. CIREBON II AND THE EQUATOR PRINCIPLES

Principle 1 requires banks considering finance for the project to properly categorise the project in accordance with the level of impact it may cause. The Cirebon 2 project is rightly categorised as a category A project[11], the highest risk category, signifying that it is a "project with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented".

As the Cirebon 2 project is in Indonesia, defined by the EPs as a 'non-designated country'[12] the project is required to comply with the relevant IFC Performance Standards and Environmental, Health and Safety Guidelines, this in addition to further conditions outlined in the EPs.

Of the ten EP principles, those of most relevance for Cirebon 2 are:

[8] Asian Cities Climate Resilience Policy Brief 2016, *Mainstreaming gender in climate change adaption in Cirebon, Indonesia*. See here: http://pubs.iied.org/pdfs/10791IIED.pdf

[9] http://www.equator-principles.com/resources/equator_principles_III.pdf

[10] For a list of the Equator Principles signatories: http://www.equator-principles.com/index.php/members-reporting

[11] JBIC published the categorisation of the project here: http://www.jbic.go.jp/en/efforts/environment/projects/49263

[12] http://www.equator-principles.com/index.php/ep3/designated-countries

Principle 2 - Environmental and Social Assessment

Principle 2 requires the client to "conduct an assessment process to address, to the EPFI's satisfaction, the relevant environmental and social risks and impacts of the proposed project". This assessment should address all relevant environmental and social risks and impacts of the project, with the assessment documentation providing an "adequate, accurate and objective evaluation and presentation of the environmental and social risks and impacts".

Principle 2 also requires for all projects with more than 100,000 tonnes of expected CO2 emissions annually, to conduct an alternatives analysis. This analysis must evaluate whether there exist less Greenhouse Gas (GHG) intensive alternatives for the project.

Principle 3 - Applicable Environmental and Social Standards

Principle 3 requires that the assessment process addresses whether the project is in compliance with all host country laws, regulations and permits that pertain to environmental and social issues. Since the project is in a non-designated country, the assessment process is required to evaluate compliance with all applicable IFC Performance Standards and EHS Guidelines. "The assessment process will establish to the EPFI's satisfaction the project's overall compliance with, or justified deviation from, the applicable standards".

Principle 5 - Stakeholder Engagement

Principle 5 requires that "for all category A and category B projects, the EPFI will require the client to demonstrate effective stakeholder engagement as an ongoing process in a structured and culturally appropriate manner with affected communities, and where relevant, other stakeholders".

When a project has "potentially significant adverse impact" on communities, the project sponsor is required to conduct an "Informed Consultation and Participation process". This process is defined by the EPs as "an in-depth exchange of views and information and an organised and iterative consultation that leads the client to incorporate the views of affected communities, on issues that affect them directly (…), into their decision-making process". The project sponsor should make sure that this process is free from "external manipulation, interference, coercion, and intimidation".

To facilitate this engagement process, the project sponsor is required to make the appropriate assessments documentation (from Principle 2 and 3) available to the affected communities in such a way that it is culturally appropriate and in the local language. The project sponsor should take account of and document the results of this process.

As the remaining principles of the EPs relate to requirements that are not relevant at this phase of the project, they are not further discussed.

4. OUTSTANDING ISSUES

Local communities have raised many issues in relation to the Cirebon 2 project. We highlight some of their concerns below, following the requirements of the EPs listed above.

1. Compliance with Principle 2 and 3

Compliance of the project with relevant legislation

In a letter sent to JBIC in September 2016, the local organisation Rapel Cirebon (Rakyat Penyelamat Lingkungan: People of Environment Savior), representing more than 3000 local inhabitants, reveals

that several land dispute cases are ongoing, this due to the overlapping of landowner's ownerships with the land planned for Cirebon 2, like what happened earlier in relation to Cirebon 1.[13]

The group claims that there are at least seven landowners of Kanci Kulon village whose lands are in the area that has been claimed as the property of the Ministry of Environment and Forestry, which is now being used for the development of Cirebon 2. These landowners have not consented to their land being used for the project site. This is linked to the forced land acquisition process of 1986 by the Ministry, which led to serious to human rights violations. At the time, most of the community members were forced to hand over their land at gunpoint by the military government for the construction of a timber hub port that was subsequently cancelled.

More recently, at the end of 2016, six local inhabitants[14], supported by 17 lawyers from the Bandung Legal Aid Institute and independent environmental advocates, have filed a lawsuit against the West Java Provincial Government for not appropriately issuing the environmental permit for Cirebon 2, demanding its cancellation.[15] These inhabitants claim that:

- the formulation of the Environmental Impact Assessment (EIA) is in violation of the Cirebon Regency Spatial Planning
- the Environmental Permission and Environmental Appropriateness Decision Letter provided to them are not properly considering environmental carrying capacity integrated in Cirebon Regency Spatial Planning
- the two decisions above are in violation of the universal principles of good governance.

The six inhabitants of Kanci Kulon Village also claim that the Cirebon 2 project sponsor failed in assessing the cumulative impacts on air quality and community health expected from the Tanjung Jati A plant, which is planned to have 2 x 660 MW capacity, and is situated only two kilometres away from the Cirebon coal power station.

A final issue raised in the court case of the six inhabitants of Kanci Kulon Village is the lack of community participation in the EIA development process, further described below. Although Cirebon 2 directly threatens their livelihood, none of them have been properly involved in the conduct and the issuing of the EIA or consulted about the environmental permit being issued.

The court case has started on January 11th this year and is still ongoing at the time of writing. If the concerns of the claimants are confirmed by legal decision, the project would be in violation of Principle 3, since it would not comply with relevant host country laws. No financing decision should be therefore taken before the verdict of the court.

Flaws in the environmental and social impact assessment

Air pollution and impact on health and farming

The Environmental Impact Assessment conducted for Cirebon 2 is not compliant with the minimum requirements of Principle 2. An analysis conducted by Greenpeace revealed significant flaws, since the EIA fails to assess several highly negative effects.[16]

For example, when assessing the potential health impacts of the atmospheric emissions of the project, Nexo, the company which conducted the EIA, failed to:

[13] Letter available upon request.
[14] The inhabitants are from the Kanci Kulon Village, in the Astanajapura district that is part of the Cirebon Regency in West Java.
[15] No. 660/10/19.1.02.0/BPMPT/2016, issued in May 11, 2016. Available upon request.
[16] Analysis available upon request.

- Evaluate the full range of impacts of atmospheric emissions on human health, especially those relating to cardiovascular diseases and lung cancer: the relationship between increases in ambient air pollution levels and risk of death from diseases is well established and is routinely used for scientific studies that quantify the health impacts of air pollution
- Evaluate the formation of secondary particulate matter (sulphates and nitrates, PM2,5) from SO2 and NOx emitted by the power plant: for coal-fired power plants with reasonable particulate matter control efficiency, the exposure of the vast majority of the population to PM2.5 is due to secondary particle formation, but it is not clear if this was considered.
- Evaluate the full geographic scope of atmospheric emissions: geographical scope of the modelling is completely insufficient;
- Evaluate the cumulative impacts of the coal stockpiles, power plant emissions and coal ash storage that are assessed separately, which is absurd: the maximum impacts from the three air pollution sources together could well violate ambient air quality standards, even if each source separately is claimed not to violate them;
- Use any measured/monitored meteorological data for the atmospheric modelling of pollution dispersion, which is a significant deviation from best practice.

Water pollution and impact on fishing

The models used for the Cirebon EIA indicate that cooling water from the Cirebon power plant may reach a temperature level of 38 °C. This is a 9 °C temperature increase on the assumed background temperature of surrounding seawater of 29 °C. While the mixing of cooling water with the surrounding seawater would dilute the thermal increase, it is expected that average temperature of sea water will increase more than 2 °C in an area that extends 3.1 km to the east and 2.5 km to the west, and approximately 500m from the coastline. This means that along 6 km of coastline the ecosystem will be severely affected by thermal pollution, which will not only have a big impact on nature, but also on the livelihoods of local fishermen.

The Indonesian Water Quality Standards KEPMEN LH No 51 of 2004 sets maximum water temperatures for areas where coral, mangrove and seagrass grow. These maximum water temperatures are 30 °C, 32 °C, and 30 °C respectively. Although we do not have verified information stating that corals, mangroves or seagrass grow in the sea in the Cirebon 2 area, it is very likely they do. If this is indeed the case, the thermal water discharges are in breach with KEPMEN LH No 51.[17]

Finally, the air pollution, thermal water discharges and changed water flows of the Cirebon 1 plant are already having a serious negative impact on the income of local fishermen, farmers and salt-makers. Shellfish picking in Desa Kanci Kulon, an important local income source, has almost completely vanished, as there is hardly any shellfish left.[18] It is likely that the income of fishermen, farmers and salt-makers will further deteriorate if Cirebon 2 will be built. Although this is a crucial part of an EIA, no assessment was made on the potential loss of income that Cirebon 2 will cause for local farmers, fishermen and salt makers.

Use of Best Available Technologies to mitigate air pollution

Finally, although the project developer and the financiers claim that the Cirebon 2 plant will use best available pollution control technology, this is not at all the case. The Cirebon 2 plant will use 'ultra-super critical' technology, which means the plant is very efficient, resulting in a small reduction in emissions. However, there are many more abatements techniques available to reduce emissions of substances like NOx, SOx and dust, and only a few of these will be applied in the

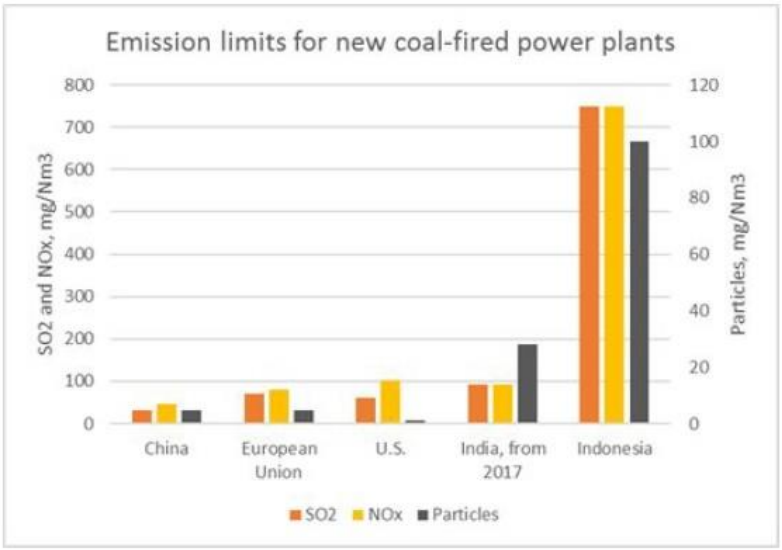
[17] A more detailed assessment of the effect of the thermal discharges can be found in the Greenpeace analysis mentioned above, available upon request.

[18] More information about the effect of the Cirebon 1 unit on the livelihoods from the local community can be found at page 3 and 4 of the 'Objection Regarding the Cirebon Coal-fired Power Plant Project in West-Java, Indonesia' of 8-11-2016, that was send to JBIC, available upon request to BankTrack.

Cirebon 2 plant. Existing coal fired power plants in Japan, where Marubeni, one of the project sponsors, is based, have much more and better pollution control mechanisms installed. Emissions concentration from these plants are much lower, and were so already 14 years ago. For instance, SO2 emissions concentration from the Cirebon 2 plant will be 20 times (!) as much as the SO2 emissions concentration from the Isogo plant in Japan.

With respect to the emission limits, it is also important to realize that the air pollutant emission limits applied in Indonesia for new coal-fired power plants are extremely lenient compared with international best practice. The Indonesian limits are 750, 750 and 100 mg/Nm3 of SO2, NOx and PM. As the table below shows, new plant limits in China are 35, 50, 10, in India 100, 100 and 30, and in the EU 150, 150 and 10, respectively.[19]

The pollution levels planned for Cirebon 2 are neither in line with the standards recommended by the IFC in its performance standards, nor have we seen an alternative analysis that explains this choice of technique.



All in all, one must conclude that the EIA conducted for Cirebon 2 is of substandard quality, that the project is not in compliance with relevant local legislation and that substandard technology is being used for the project, leaving the project in non-compliance with Principle 2 and 3 of the EPs.

2. Compliance with Principle 5

Insufficient Consultation of local affected communities

According to the local Indonesian group Rapel Cirebon, in another letter sent to JBIC in April 2016, no proper consultation has taken place with the local community on the formulation of the EIA and on the land acquisition process, as only selected people were invited to meetings with the project sponsor and could participate in the public consultations.[20] The communities complain that there has been no opportunity for many local people, businessmen and fisher folk for example, to participate in any decision-making process.

As mentioned above, the lack of community participation in the EIA development process was also raised in the court case of the six inhabitants of Kanci Kulon Village. Although Cirebon 2 directly

[19] Table provided in the Greenpeace analysis mentioned above, available upon request.
[20] Letter available upon request.

threatens their livelihood, none of them have been involved in the formulation process, the issuing of the EIA or the environmental permission.

The group further claims that the information disclosure to affected communities was inadequate to none existent and that there was no transparency on the decision-making process. The group also claims it found evidence that the project sponsor provided 10 million rupiah for every head of village that approved the EIA as proposed by the project sponsor.

5. Conclusion

The Equator Principles exist to ensure that projects financed by adopting banks are developed in such a way that social and environmental impacts are properly assessed and appropriately dealt with. This places a responsibility on the project sponsor to follow due process when assessing possible risks of the project and to properly consult all communities potentially affected by the project. None of this is the case with Cirebon 2, which should lead to the conclusion that banks that have adopted the Equator Principles must refrain from financing the project.

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