



**Submission to SACE
regarding the floating liquefied natural gas (FLNG) project
in northern Mozambique
June 2016**

Based on the points laid out below, ReCommon and Friends of the Earth United States recommend that SACE refuse to finance the floating liquefied natural gas (FLNG) project in northern Mozambique.

Methane emissions will result in irreversible climate change

This project has the potential to result in a huge release of greenhouse gas emissions, especially methane, not just over the next few years, but for decades to come. The assessment expects that this project will have a liquefied natural gas (LNG) capacity of 2.5 to 3 million tons per year for at least 25 years.¹ The amount of money that will be invested in this project will mean that this infrastructure will stay in place for decades. Not only will this shift investment from renewables to natural gas, but it will also disincentive future renewable opportunities.² In a country that is largely rural and has significant solar resources, this is a major lost opportunity to increase electricity access to clean and sustainable forms of electricity that will not contribute to climate change.

The assessment underestimates the impact of the methane that will be released as a result of this FLNG project in northern Mozambique. The assessment uses a global warming potential for methane of 25, based on the outdated 2007 Intergovernmental Panel on Climate Change (IPCC).³ According to the most recent report from the IPCC, methane is a greenhouse gas that is 87 times as potent as carbon dioxide over a 20 year timeframe.⁴ Additionally, the assessment greatly underestimates the amount of methane that the project will emit, finding that the project will

¹ Consultec – Consultores Associados, Lda., *Environmental Impact Assessment Process for the Floating Liquefied Natural Gas Project: Environmental Impact Study Final Report*, 46-47 (2015) [hereinafter “Consultec”].

² Haewon McJeon et al., *Limited Impact on Decadal-Scale Climate Change from Increased Use of Natural Gas*, 514 NATURE 482 (2014), <http://www.nature.com/nature/journal/v514/n7523/full/nature13837.html>; Steven J. Davis & Christine Shearer, *Climate change: A Crack in the Natural-Gas Bridge*, 514 NATURE 436 (2014), <http://www.nature.com/nature/journal/v514/n7523/full/nature13927.html#close>; Seth Borenstein, *Abundant Natural Gas Won't Slow Climate Change, Study Says*, ASS. PRESS, Oct. 15, 2014, http://www.huffingtonpost.com/2014/10/15/natural-gas-climate-change_n_5990888.html.

³ Consultec, *supra* note 1 at 18.

release a total of only 1.814 tons per year and will not emit a significant amount of fugitive methane.⁵

Unfortunately, this assessment is not alone in underestimating the methane from a project. Methane emissions are a major problem for the oil and gas sector; some estimates put methane leakage from oil and gas production at 17 percent.⁶ Studies have found that regulators are not properly estimating these emissions from natural gas fields.⁷ Part of the reason for this, is a device commonly used to measure the methane that leaks from industrial sources may greatly underestimate those emissions.⁸ Natural gas's release of large amounts of methane led to a Cornell University review of the scientific research that found conventional natural gas has a greater climate impact than coal.⁹ Contrary to what one might think, the newer the gas well, the more likely the well is to leak methane.¹⁰ These wells will continue to leak methane long after ENI and other energy companies have stopped using them to extract natural gas.¹¹

4 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE (2014), <http://mitigation2014.org/report/publication/>. Some calculations of methane's impact look at the longer timeframe of 100 years, but the shorter 20-year timeframe is more appropriate to properly reflect methane's stronger impact in the short-term due to its atmospheric lifespan of about 12 years. Considering that scientists have concluded that significant reductions must take place in the next decade in order to limit the worst impacts of climate change, it is imperative to take into account this warming impact of methane in the short-term.

5 Consultec, *supra* note 1 at 18-19.

6 Oliver Schneising et al., *Remote Sensing of Fugitive Methane Emissions from Oil and Gas Production in North American Tight Geologic Formations*, 2 EARTH'S FUTURE 548 (2014), <http://onlinelibrary.wiley.com/doi/10.1002/2014EF000265/pdf>.

7 Tegan N. Lavoie, et al., *Assessing the Methane Emissions from Natural Gas-Fired Power Plants and Oil Refineries*, 51 ENVTL. SCI. & TECH. 3373 (2017), <http://pubs.acs.org/doi/abs/10.1021/acs.est.6b0553> (measuring methane emissions from natural gas power plants to be 21 to 120 times higher than the facility reported); Gabrielle Pétron et al., *A New Look at Methane and Nonmethane Hydrocarbon Emissions from Oil and Natural Gas Operations in the Colorado Denver-Julesburg Basin*, 119 J. GEOPHYSICAL RESEARCH: ATMOSPHERES 6836 (2014), <http://onlinelibrary.wiley.com/doi/10.1002/2013JD021272/full>; A.J. Turner, et al., *A Large Increase in U.S. Methane Emissions over the Past Decade Inferred from Satellite Data and Surface Observations*, 43 GEOPHYSICAL RESEARCH LETTERS 2218 (2016), <http://onlinelibrary.wiley.com/doi/10.1002/2016GL067987/abstract> (finding U.S. methane emissions to have increased 30 percent from 2002 to 2014 while U.S. EPA claimed they were falling); Lorenzo Cremonese & Alexander Gusev, Institute for Advanced Sustainability Studies (IASS) Potsdam, IASS working paper, *The Uncertain Climate Cost of Natural Gas: Assessment of Methane Leakage Discrepancies in Europe, Russia and the US, and Implications for Sustainability* (2016), http://www.iass-potsdam.de/sites/default/files/files/wp_dec_2016_en_uncertain_climate_cost_of_natural_gas.pdf (“extent of emissions along the natural gas . . . supply chain is . . . very likely underestimated”).

8 Touché Howard, *University of Texas Study Underestimates National Methane Emissions at Natural Gas Production Sites Due to Instrument Sensor Failure*, 3 ENERGY SCI. & ENG'G 443 (2015), <http://onlinelibrary.wiley.com/doi/10.1002/ese3.81/pdf>.

9 Robert W. Howarth, *A Bridge to Nowhere: Methane Emissions and the Greenhouse Gas Footprint of Natural Gas*, ENERGY SCI. & ENG'G (2014), http://www.eeb.cornell.edu/howarth/publications/Howarth_2014_ESE_methane_emissions.pdf.

10 Anthony R. Ingraffea et al., *Assessment and Risk Analysis of Casing and Cement Impairment in Oil and Gas Wells in Pennsylvania, 2000–2012*, PROC. NATURAL ACAD. SCI. (2014), <http://www.pnas.org/content/111/30/10955> (study of onshore conventional and unconventional gas wells in Pennsylvania).

11 Mary Kang et al., *Direct Measurements of Methane Emissions from Abandoned Oil and Gas Wells in Pennsylvania*, PROC. NATURAL ACAD. SCI., <http://www.pnas.org/content/111/51/18173.abstract> (finding some abandoned oil and gas wells that were emitting significant amounts of methane).

This assessment fails to consider the impact of the project as a whole, merely looking at the greenhouse gas impact of this one FLNG project. Yet this project does not exist in a vacuum; it is merely one piece of the entire area of gas development in the Cabo Delgado region of northern Mozambique and only part of the process until the gas reaches its ultimate destination – a natural gas-fired power plant. The LNG project lifecycle processes of production, transport, liquification, shipping, regassification, and power plant combustion is incredibly energy intensive. The U.S. Department of Energy estimates that the liquefaction, transport, and regasification process increases the total lifecycle of greenhouse gas emissions from the natural gas industry by 15 percent.¹² Therefore, looking at just the FLNG project ignores the wider climate impact of this project.

Local communities worse off:

Beyond the project itself, this FLNG project will require a huge investment, which would be better spent on social programs and renewable energy development. The project itself will require an investment of US\$ 7-9 billion.¹³ This large investment could make this project the single largest investment project in Mozambique. This investment is in a country where the overall literacy rate is 47 percent and a mere 28 percent for females.¹⁴ This project will divert funds that should be going to education and other social necessities to build and maintain needed infrastructure for this project. When these projects occur, governments always have to spend huge amounts of money beyond what private investors provide.

Very few, if any, of the jobs that this project will create will go to local communities. Locals do not have the education to benefit from these jobs. As the assessment states, most of the people who live in the district surrounding the project have received no formal education and much of the population is illiterate.¹⁵ In addition, the local population has little to no experience with the private sector. Therefore, they will not have the skills or education level to perform the jobs that this project will create. Meanwhile their income from natural resources will be destroyed. Therefore, the 350 low skill jobs that the project expects to provide will not be sufficient to offset the lost income.¹⁶ Most likely, members of the local communities will not even get many of those 350 jobs as the companies have preferred to hire foreigners or Mozambicans from cities, according to the local communities.¹⁷ Even when the gas companies do hire members of local communities, there have been reports of locals being paid less for the same job as foreigners or urban Mozambicans are paid.¹⁸ Considering that neither Mozambican law, now the contract with the gas companies require local benefits, there is no guarantee that the gas companies will hire any locals.

12 U.S. Department of Energy, National Energy Technology Laboratory. *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, DOE/NETL-2014/1649, (2014)

<http://www.energy.gov/sites/prod/files/2014/05/fl16/Life%20Cycle%20GHG%20Perspective%20Report.pdf>.

13 Consultec, *supra* note 1, at 43.

14 USAID, Mozambique: Education, <https://www.usaid.gov/mozambique/education>.

15 Consultec, *supra* note 1, at 179, 253-54.

16 *Id.* at 68.

17 Kate DeAngelis, *Report from the Field: Perspectives and Experiences of Mozambican Communities and Civil Society on Liquefied Natural Gas Exploitation* (2016), http://webiva-downton.s3.amazonaws.com/877/8e/a/9041/1/2016.09.14_Mozambique_LNG_Trip_Report.pdf.

18 *Id.*

Not only will the LNG project not provide local jobs, but it will also remove the sources of income that local communities depend on. The assessment finds that the majority of the local communities are highly dependent economically on subsistence agriculture and fishing.¹⁹ Local communities will no longer be able to access these resources that they depend on, including forests and areas for fishing. In addition, local communities will lose any income they currently get from tourism. In 2005, Mozambique has boasted the country with the fastest rate of growth of the tourism industry in the world, 37 percent above the previous year. In 2013 alone, the sector generated about 277 million US dollars, which was 7.6 percent of GDP.²⁰ That same year, travel and tourism supported 273,000 jobs directly and 718,000 jobs indirectly, or 2.4 and 6.4 percent respectively of total employment.²¹ With that in mind, the Government opted to ensure that all future development projects in tourism have a strong component of social responsibility. The province of Cabo Delgado, as one of the country priority areas for the development of tourism sector, has been receiving considerable investment in tourism. The project will greatly hinder those economic impacts by driving tourists away through high levels of noise, vessel traffic, and pollution, as well as the destruction of the pristine local reef. Therefore, the tourism income created from snorkeling and diving, as well as beachgoers will be completely destroyed. Hotel owners and tour providers from Ibo Island, which is close to the gas development, have already reported seeing a decline in the animals and tourism since the gas exploration began.²²

Moreover, the construction of FLNG and related projects relies on the influx of thousands of workers who are typically paid far more than others in the community. This imbalance in pay typically causes hyper inflation of housing, food, and other basic necessities. Other than the relatively few local people lucky enough to get a job on the project, this hyper inflation will result in most local people being relatively worse off financially, even with (and indeed because of) the large influx of investment into the construction project.

The increased strain on health care resources will further harm local communities. This project will require a huge influx in population in order to build and maintain it. This will result in an increase crime, prostitution, and the spread of sexually transmitted diseases as thousands of mostly young single males come in mass into the area. Examples of this can be found at energy extraction projects all over the world, including in areas surrounding LNG projects previously financed by export credit agencies.²³ This increase in population will also put pressure on the areas limited health care facilities and water resources. This strain will be local populations at greater risk of health problems from tainted water and sanitation issues.

The influx of thousands of mostly male workers and government security forces that typically protect LNG construction sites can also lead to violent conflict with local villagers. This is the case with the export credit agency financed Papua New Guinea Liquid Natural Gas project. This

¹⁹ Consultec, *supra* note 1, at 191.

²⁰ World Travel and Tourism Council. *Travel & Tourism: Economic Impact 2014 Mozambique*, p. 1 (2014), <http://www.wttc.org/-/media/files/reports/economic%20impact%20research/country%20reports/mozambique2014.pdf>.

²¹ *Id.*

²² DeAngelis, *supra* note 17.

²³ *E.g.*, John Eligon, *An Oil Town Where Men Are Many, and Women Are Hounded*, N.Y. TIMES (Jan. 13, 2013).

violence against communities, as well as the construction-related deaths of at least 26 local villagers was the subject of an exposé in *The Nation* and accompanying video in *The Guardian*.²⁴

No improvement to energy access for local communities:

The Mozambique LNG project does not even pretend to be helping Mozambique and its people economically benefit from its resources. About 80 percent of the country lacks access to electricity.²⁵ This figure is high even in comparison to other Sub-Saharan African countries and low income countries.²⁶ Even for the 20 percent that is considered to have access, many of those people cannot actually afford the electricity, leading to millions more Mozambicans without electricity. The assessment itself finds that the closest city of Palma has an electricity rate of 0.6 percent.²⁷ Despite this incredibly low electricity rate, the project does not attempt to improve that figure. While this project will destroy the natural resources that local communities depend on, they will receive none of the electricity benefit. The LNG will be immediately brought to other countries, likely markets in Asia, which have already expressed interest in purchasing the LNG from the gas development.²⁸

Natural gas does not even make sense to improve energy access in Mozambique. About two thirds of the population in Mozambique lives in rural areas far from the centralized grid. Therefore, an increase in the production of natural gas, which requires large centralized power stations, would not help to improve the country's access to electricity. Furthermore, Mozambique lacks the pipeline infrastructure that would be needed to transport natural gas from the very north of the country where the natural gas deposits are to Maputo in the south or any other part of the country. To build such a pipeline network, which is prohibitively expensive, and if it were accomplished would cement dependence on fossil fuels for decades to come. To increase access to electricity, the country would need to invest in small distributed systems. Small solar systems would make the most sense in a country like Mozambique, which is flush with solar resources.

Environmental impacts underestimated:

This project will have a huge impact on the local environment. The sheer area of the project is massive; the assessment calculates that the footprint of the project is 10,207 km².²⁹ The assessment incorrectly finds that most of the impacts will be have either a “low” or “medium” impact with mitigation measures. There is no way that such a massive energy extraction project will not result in many major negative environmental impacts (as other export credit agency-

24 Ian T. Shearn, *ExxonMobil's New Guinea Nightmare*, THE NATION, Apr. 20, 2014, <http://www.thenation.com/article/exxonmobils-new-guinea-nightmare/>.

25 The World Bank, Access to Electricity (% of Population), <http://data.worldbank.org/indicator/EG.ELC.ACCS.ZS/countries/MZ-ZF-XM?display=graph> (latest data is from 2012).

26 The average rate of access to electricity in developing Sub-Saharan African countries is about 35 percent and 25 percent in low income countries. *Id.*

27 Consultec, *supra* note 1, at 188, 254.

28 Oleg Vukmanovic & Jacob Gronholt-Pedersen, *Exclusive: Asian Buyers Line up for Mozambican LNG with New Deals*, REUTERS, Oct. 30, 2014, <http://www.reuters.com/article/us-mozambique-lng-anadarko-petrol-exclusive/idUSKBN0IJ1V320141031>.

29 Consultec, *supra* note 1, at 43.

financed LNG projects demonstrate). To state otherwise, is minimizing and trying to brush over the true impacts that this project will have that will never be able to be undone.

The zone where the three parts of the projects are located encompasses an area that provides a home to a large number of flora and fauna species, as well as special ecosystems. The coastline of eastern Africa, including particularly the northern coast of Mozambique, is home to incredible biodiversity. Roughly 60 percent of eastern Africa's remaining mangrove forests are in Mozambique, providing excellent habitat and tremendous ecosystem services.³⁰ Northern Mozambique's coral reefs are also largely intact and are some of the most species-diverse coral reefs in the region, particularly in the Quirimbas Archipelago of Cabo Delgado Province where the project will occur.³¹ The area's particularly productive sea grass beds also provide nursery grounds and foraging habitat for fish and turtles.³² Recognizing these ecological attributes, as well as the area's cultural history, the Quirimbas Archipelago is currently on the Tentative List of World Heritage sites, which means it is under consideration for nomination as World Heritage site.³³

The project area particularly has a wide diversity of animals including whales, dolphins, turtles, sea birds, and fish.³⁴ Moreover, the environmental impact statement indicates that the project-impacted areas include a number of species that are considered imperiled by the IUCN, including dugong, green turtles, sei whales, and sperm whales.³⁵ The EIS notes that some impacted species are new to science, showing how important this area is for biodiversity.³⁶ The project will destroy areas of pristine coral reefs, mangroves, and sea grass beds. Fewer and fewer places in the world contain these ecosystems, so protecting them is more important than ever. The gas development in this region will require dredging, disposal of waste materials, and the construction of subsea, near shore, and on shore structures and infrastructure that will devastate these ecosystems. This will also harm the species through habitat degradation, noise and ship strikes and force species to leave the area. Moreover, if there is a spill or gas accident, which have become prevalent at energy extraction sites, the impacts will be even more catastrophic.

Financial risk posed by the secret debt:

The Mozambican government secretly guaranteed over \$2 billion worth of loans and bonds with hopes of repayment pinned to exploitation of the gas reserves. It arranged the debt – via Credit Suisse AG and Russian bank VTB Group - without securing mandatory parliamentary approval.³⁷ One loan, subsequently converted into sovereign debt, was for \$850 million for the Mozambique Tuna Company, Ematum. Though investors believed they were paying for boats to catch tuna, the bonds actually paid primarily for military equipment.³⁸ The other two loans were for \$535 million for Mozambique Asset Management (MAM) for the repair and maintenance of maritime

30 M. Samoilys et al., *Resilience of Coastal Systems and Their Human Partners in the Western Indian Ocean*. Nairobi, Kenya: IUCN ESARO, WIOMSA, CORDIO and UNEP Nairobi Convention (2015).

31 *Id.*

32 *Id.*

33 UNESCO, The Quirimbas Archipelago, <http://whc.unesco.org/en/tentativelists/5380/>.

34 Consultec, *supra* note 1, at 142-43.

35 IUCN, The IUCN Red List of Threatened Species, <http://www.iucnredlist.org/> (last visited May 9, 2017).

36 Consultec, *supra* note 1, at 138.

37 Joshua Franklin & Wendell Roelf, *Swiss and UK Watchdogs Quiz Credit Suisse over Mozambique Debt*, REUTERS, Jun. 7, 2016, <http://uk.reuters.com/article/uk-mozambique-debt-credit-suisse-gp-idUKKCN0YT1ES>.

operations and \$622 million for Proindicus for military ships, shipyard construction and surveillance equipment to supposedly protect the country's offshore oil and gas development. Since the bulk of this debt was for things like weaponry that are of questionable return and difficult to service in the short- or medium-term, Mozambique's economy has been put at great risk.³⁹ The Parliamentary Commission investigating the debt has found the government's guarantee to be unconstitutional.⁴⁰

The government had hoped to quietly repay the debt via revenue from contract security work for the offshore oil and gas reserves and fishing, but low natural gas prices and an underperforming fishing fleet upended that plan. Following these revelations, the country's debt now stands at 86 percent of GDP, which, according to the International Monetary Fund (IMF), puts the country's finances at high risk.⁴¹ Mozambique's currency has also depreciated almost 50 percent against the U.S. dollar since mid-2015.⁴² An updated Debt Sustainability Assessment of Mozambique by the IMF and World Bank is expected to find the country to be in 'debt distress' because it has defaulted on private external debt and announced it cannot pay the rest.

Public financiers like SACE should learn from the mistakes of international players that helped encourage the hidden debt and the country's risky lending practices. Credit Suisse and VTB most likely knew the money was for questionable military contracts and that the full scope of the debt was hidden.⁴³ One senior Credit Suisse official even personally benefited from the deal; soon after helping to arrange the loan, he left the bank and went into business with Proindicus.⁴⁴ In addition, donor countries and other international partners, such as the IMF and World Bank, ignored signs that Mozambique's economic strategy was unsustainable and failed to change contract terms and fiscal incentives.⁴⁵ Mozambique is seen as a success story that donor countries and financing institutions are hesitant to tarnish. They have long turned a blind eye to evidence of corruption in Mozambique.⁴⁶

38 Matt Wirz, Julie Wernau, & Matina Stevis, *Behind Credit Suisse's Soured Mozambique Deals*, WALL STREET J., Aug. 11, 2016, <http://www.wsj.com/articles/behind-credit-suisse-soured-mozambique-deals-1467214300>.

39 Carlos Castel-Branco & Fernanda Massarongo, *Mozambique's Secret Debt: The Impact on the Structure of the Debt and the Economic Consequences*, IDEIAS, Jun. 16, 2016, http://www.iese.ac.mz/wp-content/uploads/2016/07/IESE_IDeIAS86e.pdf.

40 Joseph Hanlon, *Mozambique Fell Prey to the Promise of Fabulous Wealth – Now It Can't Pay Nurses*, THE GUARDIAN, Jan. 27, 2017, <https://www.theguardian.com/global-development/2017/jan/27/mozambique-fabulous-wealth-gas-reserves-pay-nurses-debt-crisis>.

41 Matt Wirz, *IMF Calls for Audit of Mozambique's Undisclosed Debt*, WALL STREET J., Jun. 24, 2016, <http://www.wsj.com/articles/imf-calls-for-audit-of-mozambique-undisclosed-debt-1466800795>.

42 Based on an exchange rate of 0.0260 on June 28, 2015 and of 0.0142 on May 10, 2017, according to data at <http://fx-rate.net/MZN/USD/>.

43 Wirz, Wernau, & Stevis, *supra* note 39.

44 *Revealed: Ex-Credit Suisse Banker in Business with EMATUM Ship-Builder*, ZITAMAR NEWS, <http://zitamar.com/revealed-credit-suisse-banker-now-pay-ematum-ship-builder/>.

45 Carlos Castel-Branco & Fernanda Massarongo, *Refuting Myths in the Debate about the Public Debt in Mozambique*, IDEIAS, Jun. 16, 2016, http://www.iese.ac.mz/wp-content/uploads/2016/06/IESE_IDeIAS87e.pdf.

46 Joseph Hanlon, *Mozambique's Secret Loans: What Happens Now?*, CLUB OF MOZAMBIQUE, Apr. 26, 2016, <http://clubofmozambique.com/news/mozambique-secret-loans-what-happens-now-joseph-hanlon/>; Joseph Hanlon, *Do Donors Promote Corruption?: The Case of Mozambique*, 25 THIRD WORLD QUARTERLY 747 (2004), <http://www.tandfonline.com/doi/abs/10.1080/01436590410001678960?scroll=top&needAccess=true&journalCode=ctwq20>.

Multilateral organizations, credit agencies, and national governments have taken immediate steps to cut off lending and warned of the country's poor investment prospects. Both the World Bank and the IMF suspended direct lending to Mozambique.⁴⁷ Christine Lagarde, the managing director of the IMF, accused the Mozambican government of "clearly concealing corruption."⁴⁸ Donor countries, including the United States, are also reviewing aid to Mozambique, while the G14, a group of donor nations, suspended budgetary assistance to Mozambique.⁴⁹ The U.K. is investigating whether Credit Suisse and VTB deceived investors; a Swiss regulator is conducting a similar investigation of Credit Suisse.⁵⁰ Even some members of Mozambique's ruling party believe that charges should be brought against those responsible for the illegal debt, while Mozambican civil society has argued for an exhaustive audit.⁵¹ Internally, Credit Suisse has also questioned whether these deals were sound, especially in a country where poverty reduction should trump military purchases.⁵² As a result of the debt cover-up, both Moody's and Fitch downgraded Mozambique's credit rating, with Moody's finding the outlook for the country to be negative.⁵³ Meanwhile, civil unrest is further destabilizing the country, causing more than 10,000 refugees to flee to neighboring Malawi.⁵⁴

While the exact motivations and plan for Mozambique's secret debt remain unclear, it seems that the natural gas reserves are connected in two ways. First, the government purchased military equipment to shore up its gas resources. The government has admitted that it wanted to protect the gas reserves and provide investment in related projects and companies. A Parliamentary Commission of Inquiry has corroborated this, having been told that the plan was to force international oil and gas companies to use ProIndicus and MAM for security.⁵⁵ Second, the government and its creditors expected to use the revenues from the gas exploitation to pay off the debts to cover up its military purchases before anyone noticed. The government still plans to sell in advance a large part of its share of the gas in order to pay off the secret debt.⁵⁶

47 Julie Wernau & Matt Wirz, *World Bank Is Suspending Direct Financial Aid to Mozambique*, WALL STREET J., Apr. 27, 2016, <http://www.wsj.com/articles/world-bank-is-suspending-direct-financial-aid-to-mozambique-1461775025>.

48 *What Mozambique Owes, and to Whom*, REUTERS, May 25, 2016, <http://news.trust.org/item/20160525140617-w7yal>.

49 Ed Stoddard, *United States Reviews Aid to Mozambique over Hidden Debt*, REUTERS, May 11, 2016, <http://af.reuters.com/article/topNews/idAFKCN0Y20LJ>.

50 Franklin & Roelf, *supra* note 38.

51 *Mozambique: Public Debt Scandal Could Split Frelimo - Jorge Rebelo*, ALL AFRICA, May 27, 2016, <http://allafrica.com/stories/201605280086.html>; *Civil Society Calls for Audit of Mozambican Public Debt*, CLUB OF MOZAMBIQUE, Apr. 25, 2016, <http://clubofmozambique.com/news/civil-society-calls-for-audit-of-mozambican-public-debt/>.

52 Wirz, *supra* note 42.

53 Moody's Investor Service, *Moody's Downgrades Mozambique Sovereign Ratings to Caa3, Changes Outlook to Negative*, Jul. 8, 2016, https://www.moody.com/research/Moodys-downgrades-Mozambique-sovereign-ratings-to-Caa3-changes-outlook-to--PR_351635; *Fitch Downgrades Mozambique to 'CCC'*, REUTERS, Apr. 29, 2016

<http://www.reuters.com/article/idUSFit957070>.

54 Leo Dobbs, *Malawi to Reopen Former Camp, as Mozambique Refugee Numbers Grow*, U.N. HIGH COMM'R FOR REFUGEES, Mar. 15, 2016, <http://www.unhcr.org/en-us/news/briefing/2016/3/56e7ed8c6/malawi-reopen-former-camp-mozambique-refugee-numbers-grow.html>.

55 Zitamar News, *ENI and Anadarko Should Be Forced to Use ProIndicus Security, Mozambique Inquiry Told*, ZITAMAR NEWS, Dec. 9, 2017, <http://zitamar.com/eni-anadarko-forced-use-proindicus-security-mozambique-inquiry-told/>.

Flawed alternatives assessment:

While the project considers a few different alternatives, there is no mention of the option to pursue cleaner forms of energy development. Considering the amount of investment and infrastructure that will be required for this project, this assessment should have considered the potential impacts of investing in renewables instead and how that would better benefit the country. Investing in small renewable projects, such as small solar installations, would be able to bring real energy access to communities throughout Mozambique. Rather than investing in projects that will merely benefit other countries, investment in renewables would bring benefit to local communities in a way that they desperately need. Electricity will also improve health care access, as well as education opportunities.

Thank you for the opportunity to review the environmental impact assessment for ENI's FLNG project in northern Mozambique.

Sincerely,

Antonio Tricarico
Re:Common
Italy

Kate De Angelis
Friends of the Earth
United States