



# Geothermal Development

Country / Region: **Tanzania** | Project Id: **XSRETZ027A** | Fund Name: **SREP** |

MDB : **African Development Bank**

Comment Type	Commenter Name	Commenter Profile	Comment	Date
Comment 1	Daniel Menebhi	Switzerland	<p>Thank you for circulating the decision on the Geothermal development project in Tanzania.</p> <p>We have the following Questions (Q) and Comments (C):</p> <ol style="list-style-type: none"> <li>1. Project description and rationale               <ol style="list-style-type: none"> <li>a. (Q) How and by whom was the site [Ngozi field] determined as the most promising in Tanzania?</li> <li>b. (Q) The project foresees the exploratory drilling of 5 test wells (slim holes). What are the conditions set to qualify the thereby identified resource as successful for further drilling (i.e. field development)?</li> <li>c. (Q) What is foreseen if the said conditions are not met in the Ngozi field after the exploratory drilling?</li> <li>d. (Q) To what extent does the SREP co-financing also contribute to the improvement of enabling environment for geothermal development and PPP in Tanzania?</li> <li>e. (Q) To what extent does the project include transaction advisory services for the GoT related to the tendering of the geothermal power plant construction and O&amp;M as an IPP? We remember that such a component was included in the investment plan.</li> </ol> </li> <li>2. Project budget and financing               <ol style="list-style-type: none"> <li>a. (Q) What is the distribution of funding on the different project components and subcomponents, notably the SREP contribution (grant and loan)?</li> <li>b. (Q) What will be financed by the grants contributed by the other developing partners (AfIF, GRMF, ICEAID, GEF)? Are there any restrictions to the use of these grants?</li> <li>c. (C/Q) We took note that the biggest portion of component D entitled "Social Infrastructure" is in fact the compensation of project affected people [\$7.3 mil-lion]. How and by whom was this amount determined? Who will finance it?</li> </ol> </li> <li>3. Expected results               <ol style="list-style-type: none"> <li>a. (Q) Both the endorsed IP and the project document foresee the eventual installation of 100 MW power generation capacity from the geothermal resource. Yet the project has higher expectations regarding annual output (823 GWh vs 700 GWh). How is this justified?</li> <li>b. (Q) There is a discrepancy between the expected avoidance of CO2 emissions listed in paragraph 5.4 (p.14) [555'590 tCO2/y consistent with the IP] and the results framework [980'480 tCO2/y] and estimated lifetime savings for 30 vs 25 years. Which figures are correct?</li> <li>c. (C) We noted that the leverage factor of the project without the power plant is 1:3.13. this is below the expectations in the IP [1:4.0]. This is despite a reduction of the requested SREP contribution. What part of the initially planned co-financing was reduced and why?</li> </ol> </li> <li>4. Financial and economic viability               <ol style="list-style-type: none"> <li>a. (Q) The project cover page indicates that the additional co-financing related to the IPP is \$300 million.                   <ol style="list-style-type: none"> <li>i. We assumed this to be the sought private sector investment. Is our assumption correct?</li> <li>ii. In the IP the total private sector investment (equity and commercial loans) was stated at \$460 million. Please explain the difference.</li> </ol> </li> <li>b. (Q) What would be the economic and financial viability (EIRR, ENPV, FiRR, FiNPV) of such a 100 MW geothermal power plant?</li> <li>c. (Q) Has the AfDB or the GoT already identified potential investors for such a plant, if the geothermal resource of the Ngozi field is confirmed?</li> <li>d. (Q) What would in your opinion be the minimum size of a geothermal power plant in the Ngozi field to be profitable enough to attract a private investor for an IPP?</li> </ol> </li> </ol>	Jun 12, 2017



5. Risks

- a. (C) We took note of the phased approach described in the IP and in Table 5 (Risk Ratings Summary) which foresee first exploratory test drillings (slim holes) and a scaling-up only if these are successful. We understand that the project will be aborted if the exploratory drillings are not conclusive.
- b. (Q) How are the SREP contributions (grants and loan) ranked with regards to (first) risk taking against the other developing partner's contributions and the AfDB loan?
- c. (Q) How are the SREP and AfDB loans secured and from what revenues would they be serviced and reimbursed?
- d. (Q) How would the AfDB rate the risk that a conclusion of a successful IPP deal cannot be reached despite the confirmation of the geothermal resource? What are the proposed mitigation measures for this risk?
- e. (Q) In the IP, the off-take risk to a potential IPP developer was mentioned. In the project proposal this risk was not addressed. How do you rate this risk at present and how will it be mitigated?

Response 1 Leandro Azevedo

AFDB

Jun 28, 2017

Project description and rationale

(Q) How and by whom was the site [Ngozi field] determined as the most promising in Tanzania?

[AfDB]: Tanzania has many geothermal sites spread around the country. Pre-feasibility studies started being conducted in the 70s and continued over the years. These were led by the Government of Tanzania with the support of different development partners. Between 2006 and 2013, the German Federal Institute for Geosciences and Natural Resources, conducted surface exploration in the Mbeya area where the Ngozi field is located and the results were considered very promising for the site. Additional detailed studies with the support of UNEP and ICEIDA were concluded in September 2016 which confirmed optimal characteristics for power generation in the site.

(Q) The project foresees the exploratory drilling of 5 test wells (slim holes). What are the conditions set to qualify the thereby identified resource as successful for further drilling (i.e. field development)?

[AfDB]: The detailed geophysical explorations funded and conducted by BGR "found" a deep geothermal reservoir embedded within optimal conditions that are an incentive to pursue with the exploration. At this stage, there is a need to gather more information about the reservoir such as porosity, permeability and fluid flow within the reservoir itself and from bottom upwards. In order for this to happen, there is a need to drill wells to get accurate parameters at various depths below surface and if results are promising, then TGDC can proceed to the steam field development, a prior to the construction of the power plant.

(Q) What is foreseen if the said conditions are not met in the Ngozi field after the exploratory drilling?

[AfDB]: If the above conditions are not met, the wells drilled will be abandoned and the Government of Tanzania in conjunction with its development partners will have to decide whether to undertake additional drilling or abandon the site altogether.

(Q) To what extent does the SREP co-financing also contribute to the improvement of enabling environment for geothermal development and PPP in Tanzania?

[AfDB]: The SREP Project Preparation Grant of USD 700,000 is under implementation. As explained in the PAD, Norton Rose Full Bright was hired by the Government of Tanzania to: (i) develop and propose an institutional arrangement setup for geothermal, (ii) the geothermal policy, and strategy roadmap, and (iii) draft the country's geothermal bill. On June 2017, a public consultation workshop led by Norton Rose with the objective of gathering inputs was well attended by representatives from the Government of Tanzania, civil society and private sector. The assignment is expected to be completed by September 2017 with the above as outputs. Private sector participation in power generation in Tanzania is allowed since 2008 as a result of the country's PPP Act and Electricity Act and therefore the SREP role in improving the enabling environment, while relevant, is somewhat limited.

(Q) To what extent does the project include transaction advisory services for the GoT related to the tendering of the geothermal power plant construction and O&M as an IPP? We remember that such a component was included in the investment plan.

[AfDB]: At the moment an allocation of up to USD 2 million (to be confirmed during appraisal) of the project's total cost is being considered to help advance the generation phase of the project including transaction advisory. The ultimate objective is to tender the generation to the private sector in the form of an IPP. If need be, AfDB will consider additional support through the Africa Legal Support Facility and the Sustainable Energy Fund for Africa.

Project budget and financing

(Q) What is the distribution of funding on the different project components and



subcomponents, notably the SREP contribution (grant and loan)?

[AfDB]: At the time, the Investment Plan was endorsed, there was no indication that the project would benefit from a combination of loan and grant and therefore SREP amounts were not allocated to the different components per type of financial instrument (see table 1.A on page 103 of the Investment Plan).

The SREP final amounts per instrument and component will be agreed with the project beneficiary/borrower as appraisal advances on the ground. The final amounts will be defined prior to the presentation of the project to AfDB's Board of Directors for review and approval. An indicative distribution is as follows:

After the adjustments IP (\$M)

GRANT LOAN

Component A 1.7 0.5

Component B 13.4 4.0

Component C 1.7 0.5

Component D 0.0 0.0

Sub-Total 16.73 5.0

Total 21.73

(Q) What will be financed by the grants contributed by the other developing partners (AfIF, GRMF, ICEAID, GEF)? Are there any restrictions to the use of these grants?

[AfDB]: ICEIDA – Grant used for technical, social and environmental feasibility studies already.

AfIF – Grant used to fund the construction of infrastructure such as access roads, water and drilling pads.

GRMF – Grant used for test drilling. If any well shows positive results, an amount of 70% of the total drilling cost will be added to the project to the maximum of USD 3.3 million

GoT - Social infrastructure - construction that includes hospitals, compensations, schools etc. around the project site areas.

(C/Q) We took note that the biggest portion of component D entitled "Social Infrastructure" is in fact the compensation of project affected people [\$7.3 million]. How and by whom was this amount determined? Who will finance it?

[AfDB]: This amount is what the Government of Tanzania has allocated to the project based on recommendations from the environmental and social impact studies that were funded by ICEIDA. Based on AfDB's environmental and social safeguards, any compensation payable to Project Affected People must be paid by the Government of Tanzania.

Expected results

(Q) Both the endorsed IP and the project document foresee the eventual installation of 100 MW power generation capacity from the geothermal resource. Yet the project has higher expectations regarding annual output (823 GWh vs 700 GWh). How is this justified?

[AfDB]: The figure presented in the IP was revised. The current figure was computed as follows:

Energy Output =  $(100\text{MW} \times 24 \text{ hours} \times 365 \text{ days} \times 0.94)/1000 = 823 \text{ GWh}$

Where 0.94 corresponds to the estimated availability factor of the power plant. The discrepancy in the two figures is most likely due to a different availability factor.

(Q) There is a discrepancy between the expected avoidance of CO2 emissions listed in paragraph 5.4 (p.14) [555'590 tCO2/y consistent with the IP] and the results framework [980'480 tCO2/y] and estimated lifetime savings for 30 vs 25 years. Which figures are correct?

[AfDB]: The figures included on paragraph 5.4 (page 14) that take into account an estimated life of the power plant of 30 years are the accurate one. Amounts included in the Cover Page and the Results Framework were updated and a revised version of these documents will be submitted to the CIF AU.

(C) We noted that the leverage factor of the project without the power plant is 1:3.13. this is below the expectations in the IP [1:4.0]. This is despite a reduction of the requested SREP contribution. What part of the initially planned co-financing was reduced and why?

[AfDB]: The estimated leverage factor of this specific project was 1:18.5 (see Table I.A in page 103 of the Investment Plan). The current leverage factor of 1:3.13 is due to the following: (i) non-inclusion of the costs associated with the power plant, (ii) fine-tuning of the scope of the project, (iii) a better understanding of the outstanding activities to finalize the geothermal exploration phase and respective costs, and (iv) better estimate of the compensations to be made as part of the resettlement action plan.

It is important to note that the figures provided in the Investment Plan were an estimation and that over the last years much progress was made on the ground that



allow the Government of Tanzania and AfDB to come with better estimates of the project's total costs.

Financial and economic viability

(Q) The project cover page indicates that the additional co-financing related to the IPP is \$300 million. We assumed this to be the sought private sector investment. Is our assumption correct?

[AfDB]: The assumption that the rest of the funds for the installation of the generation capacity will come from the private sector is accurate. It may happen that some MDBs may be called to fund part of the debt package.

(Q) In the IP the total private sector investment (equity and commercial loans) was stated at \$460 million. Please explain the difference.

[AfDB]: At this stage, the envisaged cost of the 100MW power plant (excluding geothermal exploration phase) is estimated at USD 300 million (as opposed to USD 475 million referred in the Investment Plan), a figure that AfDB's technical team believes is much closer to reality.

(Q) What would be the economic and financial viability (EIRR, ENPV, FIRR, FINPV) of such a 100 MW geothermal power plant?

[AfDB]: The economic and financial viability analysis for this project is not yet finalized. However, its finalization is a pre-condition for internal review and approval by AfDB's Board of Directors.

(Q) Has the AfDB or the GoT already identified potential investors for such a plant, if the geothermal resource of the Ngozi field is confirmed?

[AfDB]: It is still too early to identify potential investors for the generation component of the project even though many companies present in the sector are interested. The preferred bidder shall be selected through an international competitive procurement process once the first phase of the project is successfully completed.

(Q) What would in your opinion be the minimum size of a geothermal power plant in the Ngozi field to be profitable enough to attract a private investor for an IPP?

[AfDB]: This depends on the modalities of engagement being considered with the private sector but based on previous transactions funded by AfDB and the estimated total cost per MW in the context of the project, a minimum power plant size of 10MW could be considered to be delivered in the form of an IPP. Many variables (e.g. transaction costs, technology costs, creditworthiness of the off-taker, government support, capital costs, etc.) can influence the determination of the minimum size of a power plant.

Risks

(C) We took note of the phased approach described in the IP and in Table 5 (Risk Ratings Summary) which foresee first exploratory test drillings (slim holes) and a scaling-up only if these are successful. We understand that the project will be aborted if the exploratory drillings are not conclusive.

[AfDB]: This is correct.

(Q) How are the SREP contributions (grants and loan) ranked with regards to (first) risk taking against the other developing partner's contributions and the AfDB loan?

[AfDB]: All contributions already made in the early-development phase of the project were grant contributions. AfDB's ADF contribution and all other contributions to be made under phase I of the project will be made in the form of grants and not loans. Hence, the risk faced by SREP is similar to the risk faced by other contributors.

(Q) How are the SREP and AfDB loans secured and from what revenues would they be serviced and reimbursed?

[AfDB]: The repayment of the SREP loan will be exposed to sovereign credit risk i.e. the inability of the Government of Tanzania to settle any debt outstanding. The SREP loan will be repaid from the annual budget of the Government of Tanzania and shall benefit from AfDB's Preferred Creditor Status. Same would apply to any AfDB's loan to Tanzania.

(Q) How would the AfDB rate the risk that a conclusion of a successful IPP deal cannot be reached despite the confirmation of the geothermal resource? What are the proposed mitigation measures for this risk?

[AfDB]: Even though the Government of Tanzania could, following the successful conclusion of phase I, take the unilateral decision of building and paying for the power plant on their own budget, the likelihood of this happening is very reduced for two main reasons: (i) IPPs are already operating in the country and have proven to be an efficient delivery method for power generation, and (ii) this decision could greatly impact Tanzania's National Accounts which are closely monitored by the IMF given Tanzania's status as a low-income country.

(Q) In the IP, the off-take risk to a potential IPP developer was mentioned. In the project proposal this risk was not addressed. How do you rate this risk at present and how will it be mitigated?



[AfDB]: This risk does not affect the successful implementation of phase I as no off-take agreement is required to ensure the successful completion of the project. However this can be a risk in phase II depending on the financial situation of the off-taker. Private sector and other investors will demand a sovereign guarantee from the Government of Tanzania to cover for the risk of non-payment by the off-taker to the IPP. MDBs Risk Products and other insurance instruments available in the market can be considered as well.

Response 2 Daniel Menebhi Switzerland

Thank you for your answers. We have some follow-up questions and comments: Jul 03, 2017

I. (Re. answer to question 1b): (Q) What results would be considered promising in terms of heat, pressure, and other relevant technical criteria?

II. (Re. answer to question 1c): (C) It shall be understood that in such a case where the results of exploration drilling are not promising/conclusive, the SREP subcommittee shall be re-consulted to determine what shall be done with the unused SREP contribution.

III. (Re. answer to question 2b): (C/Q) We have attempted to distribute the different contributions on the 4 components but could not succeed since certain information does not tally or is still not clear, including:

a. There is a funding gap in component A. Who fills this?

b. SREP grant is \$16.73 million but the sum over components A, B and C is \$16.8 million.

c. Component C: Total is \$1.7 million, so the SREP contribution cannot be \$2.2 million /\$1.7 million grant + \$0.5 million loan).

d. To what component is GEF contribution of \$0.85 million allocated?

e. If all AFIF and AfDB funding goes to component B, there is no need for \$3.3 million GRMF.

f. Component D: Total is \$7.8 million and you mentioned that this should be entirely covered by GoT. Yet their contribution is only \$4.55 million.

Please explain.

IV. (Re. answer to question 2c): (Q) You mentioned that any compensation payable to project affected people must be covered by the Government of Tanzania (GoT), but while the estimated needed compensation is \$7.3 million, the total contribution of the GoT is \$4.55 million. What happens to this funding gap of at least \$2.75 million?

V. (Re. answer to question 5b):

a. (Q) In your answer, you are referring to an "AfDB ADF contribution" but in the project proposal, there is only an AfDB loan of \$45 million and an AfIF (African Investment Facility) grant of \$13.57 million. Please clarify your answer.

b. (C/Q) We understand your answer in the sense that risks are equally (i.e. *pari passu*) shared between all contributors, including AfDB (loan). Is our understanding correct?

VI. (Re. answer to question 5e): (C) We do not agree to your statement that "no offtake agreement is required to ensure the successful completion of the project". Although phase II (construction of the plant) is not requesting any SREP funding, the expected results of the SREP funded project as listed in the Results Framework will only materialize if a power plant is built. And since the IPP seems to be the expected business model for such a plant, an off-take agreement will be needed to conclude a deal and the off-taker risk is thus relevant.

Response 3 Leandro Azevedo AFDB

Jul 13, 2017

I. (Re. answer to question 1b): (Q) What results would be considered promising in terms of heat, pressure, and other relevant technical criteria?

[AfDB]: The results of the surface exploration in combined with geochemistry and geophysical exploration of the site show the discovery of an elliptical geothermal reservoir extending about 2 km to the west of the perimeter of the Ngozi caldera with a total area of 12 km<sup>2</sup> and a magma reservoir located at 5 to 7 kms below the bottom of the Lake. The minimum depth is 220 ± 140 m below the lake's bottom. The water discharges (up to 89 °C) at the bottom of the Lake at a flow rate of 44 ± 7 L/s. The models produced using the discharged water estimate the geothermal reservoir to be at a temperature of 232 ± 13 °C with total dissolved solids of 15,800 ± 2300 mg/kg (Na-Cl composition) and a partial pressure of Carbone Dioxide (pCO<sub>2</sub>) of 15 ± 4 bar.

Around the world, there are many geothermal fields producing electrical power with water temperatures of 90 to 160°C only. For example, at 300m depth in the Menengai caldera in Kenya the temperature lies somewhere between 40 to 60 °C, a temperature that is far small when compared to the one found Ngozi.

II. (Re. answer to question 1c): (C) It shall be understood that in such a case where the results of exploration drilling are not promising/conclusive, the SREP subcommittee shall be re-consulted to determine what shall be done with the unused SREP contribution.

[AfDB]: Once approved by AfDB's Board of Directors, AfDB will proceed for signature



of the financial agreements with the beneficiary/borrower. If a decision is made to stop project implementation as a result of non-satisfactory results in the exploration drilling, AfDB will consider the cancellation of the SREP funds in accordance with AfDB's Cancellation Policy and any unused funds shall be returned to the CIF Trustee following cancellation. Under this scenario, any amount disbursed under the SREP loan would be paid back from the borrower to AfDB and then transmitted to the CIF Trustee.

III. (Re. answer to question 2b): (C/Q) We have attempted to distribute the different contributions on the 4 components but could not succeed since certain information does not tally or is still not clear, including:

[AfDB]: Please see section 3 of the revised the PAD. Additional clarifications are provided below for each sub-question.

a. There is a funding gap in component A. Who fills this?

[AfDB]: In the initial answer provided to question 2b, the allocation of resources per component were calculated only for the SREP amounts and did not include other contributions. AfDB would like to emphasize that at this stage (pre-final appraisal), any allocation per financier including SREP is indicative and will be finalized during the final appraisal which is now expected to happen in September/October this year. The contribution from the GoT will have to match, at least, the amounts to compensation all Project Affected People as captured in the final Resettlement Action Plan. The USD 7.8 million figure was estimated at pre-appraisal and is not yet final.

If during appraisal, it is determined that a funding gap exists in one of the components – including Component A - AfDB and other financiers, including the GoT and excluding the SREP, will consider increasing their amounts. AfDB's Board Approval will only be granted without any funding gap.

b. SREP grant is \$16.73 million but the sum over components A, B and C is \$16.8 million.

[AfDB]: Please see changes made in section 3 of the revised PAD.

c. Component C: Total is \$1.7 million, so the SREP contribution cannot be \$2.2 million /(\$1.7 million grant + \$0.5 million loan).

[AfDB]: Please see changes made in section 3 of the revised PAD.

d. To what component is GEF contribution of \$0.85 million allocated?

[AfDB]: The GEF's contribution is explained in paragraph 1.9 of the PAD. The updated financing structure removes the GEF and ICEIDA contributions as these served to cover the costs of activities already developed and paid for.

e. If all AFIF and AfDB funding goes to component B, there is no need for \$3.3 million GRMF.

[AfDB]: Please see changes made in section 3 of the revised PAD.

f. Component D: Total is \$7.8 million and you mentioned that this should be entirely covered by GoT. Yet their contribution is only \$4.55 million.

Please explain.

[AfDB]: This has been addressed in the revised PAD and in answers provided to this set of questions.

IV. (Re. answer to question 2c): (Q) You mentioned that any compensation payable to project affected people must be covered by the Government of Tanzania (GoT), but while the estimated needed compensation is \$7.3 million, the total contribution of the GoT is \$4.55 million. What happens to this funding gap of at least \$2.75 million?

[AfDB]: The contribution from the GoT has been updated in the PAD to USD 7.3 million. It is clear to AfDB and the Government of Tanzania that any compensation payable to the Project Affected People is the responsibility of the beneficiary/borrower. The payment of such compensations is a pre-condition for any disbursement.

V. (Re. answer to question 5b):

a. (Q) In your answer, you are referring to an "AfDB ADF contribution" but in the project proposal, there is only an AfDB loan of \$45 million and an AfIF (African Investment Facility) grant of \$13.57 million. Please clarify your answer.

[AfDB]: The Financial Instrument provided by AfDB has been corrected in the Cover Page to "Grant". AfDB is providing a Grant of USD 40 million (revised amount following additional consultations) from our ADF financing window. ADF is similar to the WB's IDA.

b. (C/Q) We understand your answer in the sense that risks are equally (i.e. *pari passu*) shared between all contributors, including AfDB (loan). Is our understanding correct?

[AfDB]: The SREP Loan will be repayable as per the terms of the loan agreement. Even if the project is not successful, the GoT will still be liable towards AfDB for any SREP owed amounts. In terms of the SREP grant, it will depend on the timing and



percentages of disbursements under each grant provided. In implementing the project, AfDB always aim at having pro-rata disbursements across all grant providers even though we reckon that in some cases, there might be a very small difference.

VI. (Re. answer to question 5e): (C) We do not agree to your statement that "no offtake agreement is required to ensure the successful completion of the project". Although phase II (construction of the plant) is not requesting any SREP funding, the expected results of the SREP funded project as listed in the Results Framework will only materialize if a power plant is built. And since the IPP seems to be the expected business model for such a plant, an off-take agreement will be needed to conclude a deal and the off-taker risk is thus relevant.

[AfDB]: The Results Framework includes two scenarios - "with..." and "without power plant". As an Implementing Entity AfDB does not oppose to use the results included under the "without power plant" scenario if SREP SC members so decide.

An off-take agreement between the national utility and the Project Company is a pre-condition for the IPP to obtain any financing to fund the power plant construction. The off-taker risk will, however, be assessed only once the capacity of the field is known, the RFP is being developed and during the appraisal and negotiations stages among all parties involved in the financing of the power plant. It is very likely that a Sovereign Guarantee or the implementation of an appropriate risk mitigation instrument (e.g. Partial Credit Guarantee) will be required to mitigate non-payment risk from the off-taker.

Response 4	Leandro Azevedo	AFDB	PLEASE SEE REVISED ANSWER TO THE QUESTION BELOW. VI. (Re. answer to question 5e): (C) We do not agree to your statement that "no offtake agreement is required to ensure the successful completion of the project". Although phase II (construction of the plant) is not requesting any SREP funding, the expected results of the SREP funded project as listed in the Results Framework will only materialize if a power plant is built. And since the IPP seems to be the expected business model for such a plant, an off-take agreement will be needed to conclude a deal and the off-taker risk is thus relevant. [AfDB]: The Results Framework includes two scenarios - "with..." and "without power plant". As an Implementing Entity AfDB does not oppose to use the results included under the "without power plant" scenario if SREP SC members so decide. An off-take agreement between the national utility and the Project Company is a pre-condition for the IPP to obtain any financing to fund the power plant construction. The off-taker risk will, however, be assessed only once the capacity of the field is known, the RFP is being developed and during the appraisal and negotiations stages among all parties involved in the financing of the power plant. It is very likely that a Sovereign Guarantee or the implementation of an appropriate risk mitigation instrument (e.g. Partial Credit Guarantee) will be required to mitigate non-payment risk from the off-taker. In this regard, AfDB agrees with the statement "an off-take agreement will be needed to conclude a deal and the off-taker risk is thus relevant".	Jul 13, 2017
Response 5	Daniel Menebhi	Switzerland	Thank you for addressing our questions and comments and for adjusting the project application documents accordingly. We support the approval of this project by the SREP Subcommittee. In case of a possible project cancellation if the drilling results at Ngozi field would not be successful or conclusive, we trust that the AFDB will act fairly and in the interest of all contributors, notably SREP, to preserve their funds from being spent unnecessarily.	Jul 17, 2017
Response 6	Leandro Azevedo	AFDB	Thank you for addressing our questions and comments and for adjusting the project application documents accordingly. We support the approval of this project by the SREP Subcommittee. In case of a possible project cancellation if the drilling results at Ngozi field would not be successful or conclusive, we trust that the AFDB will act fairly and in the interest of all contributors, notably SREP, to preserve their funds from being spent unnecessarily. [AfDB]: AfDB would like to thank Switzerland for the approval of this transformational project to Tanzania. AfDB would also like to reiterate that in accordance with the Financial Procedures Agreement signed between AfDB and the CIF Trustee, AfDB will treat CIF resources with the same degree of care as we use our own statutory resources. Best regards	Jul 17, 2017
Comment 2	Simon Ratcliffe	United Kingdom	Project Rationale  a. (Q) What has been achieved as a result of the SREP USD 0.7 million as a Project Preparation Grant (PPG) on geothermal strategy, regulation and capacity development in Tanzania. And how does this SREP project at the Ngozi site fit with	Jun 23, 2017



the proposed strategy, regulation and capacity

## Justification for SREP Intervention

a. (Q) Do the necessary transmission and distribution systems already exist to connect power generated at Ngozi to where it is needed? If not how will the transmission and distribution systems be funded?

## Project Description

a. (Q) The proposal says that "Upon completion of phase two, TGDC in partnership with AfDB and other DPs would tender out the construction, operation and maintenance of a 100MW geothermal power plant to an Independent Power Producer (IPP)". What will be the TGDC business model for power generation? Will TGDC be responsible for selling steam to an IPP that will then generate power? Or would the IPP be responsible for generating steam and power generation? What evidence is there that the preferred TGDC business model will be viable and commercially attractive to prospective IPPs? An IPP might be more attracted by generating the steam and power, where they have control over the resource.

b. (Q) What is the immediate market for the power generated by the IPP – who will purchase the power?

## Project Components

a. (Q) Will the exploratory drilling and infrastructure development be done in-house by TDGC or will it be contracted to specialist geothermal developers? If in-house, does TDGC have the specialist technical and project management skills to undertake it effectively?

## Brief Description of Expected Outcomes

a. (Q) The proposal says that the GoT will competitively tender out the construction of a geothermal power plant. As in the comment above, will the IPP contractor generate the steam and power, or just be responsible for the power generation using steam supplied by TGDC?

b. (Q) The proposal says that the Project will "develop geothermal steam fields that are capable of generating up to 100 MW". This is the maximum that could be available. What provisions are made if the test drilling reveals a much lower resource, say the 30MW that is mentioned later in the proposal? Will it still be attractive to an IPP?

## Description of Project Costs

a. (Q) Will the SREP test drilling project be phased so that if the first test drillings do not demonstrate a good enough geothermal resource then the project can be stopped, without drilling all five test holes?

b. (Q) The budget includes "Compensation of Project Affected People". What does this entail? There is limited information later of people being affected. How much of a social impact appraisal been done so far? And if not there should be one before the work commences.

## Risks and Mitigation Measures

a. (C) Private sector investment will only happen if 1. there is a sufficient geothermal resource for viable power generation, and 2. the business model is attractive. These are significant risks that should be included.

1. Phasing the test drilling, and only proceeding with all test drilling if the first holes demonstrate a viability is one risk reduction strategy.

2. SREP must be confident that there is a viable potential business model, likely to be commercially attractive for an IPP to invest.

## SREP Investment Criteria

a. (C) The "affordability and competitiveness of renewable sources" is not adequately addressed. It only provides the general, global cost range for geothermal power. The actual cost at a geothermal site is location specific. The proposal should provide an estimated cost of geothermal power at the Ngozi site, based on the likely geothermal resource (for example drawing on existing site specific survey information) and the likely cost of all geothermal development from test drilling to power generation. This will allow a proper assessment of whether this particular resource is affordable and competitive.

b. (C) The "Economic and Financial Viability" criteria is not adequately addressed. There is only a very general statement about geothermal power, and there should be a statement as to the economic and financial viability of the proposed Ngozi site.

c. The text says "enable IPPs to be competitively involved in the development of geothermal power generation". As noted in other comments, what is the evidence



Response 1 Leandro Azevedo AFDB

Jun 29, 2017

that an IPP will find this geothermal site sufficiently attractive to invest?

## Project Rationale

a. (Q) What has been achieved as a result of the SREP USD 0.7 million as a Project Preparation Grant (PPG) on geothermal strategy, regulation and capacity development in Tanzania. And how does this SREP project at the Ngozi site fit with the proposed strategy, regulation and capacity?

[AfDB]: The SREP PPG was used to hire Norton Rose Fullbright LLP. The final report should be available any time soon. Once finalized and available, the outputs of this consultancy will be discussed among the GoT, development partners and key energy sector stakeholders before being formally adopted by local authorities. The strategy, for example, will provide detailed technical and economic information on the geothermal resources of the country. In addition, drilling rules being also developed will have an impact on the exploration activities proposed under the project. Last but not least, the legal and regulatory framework will provide for detailed roles of key stakeholders (TGDC, TANESCO, private sector) that are (and will be) involved in geothermal activities across the country. The existing legal and regulatory framework surrounding mobilization of private sector investment in the country in general, and in the energy sector in particular, is considered adequate for the deployments of IPPs in geothermal generation further down the road.

## Justification for SREP Intervention

a. (Q) Do the necessary transmission and distribution systems already exist to connect power generated at Ngozi to where it is needed? If not how will the transmission and distribution systems be funded?

[AfDB]: A substation owned by TANESCO exists in the city of Mbeya that sits around 23km from the Ngozi geothermal site. Given this short distance, it is reasonable to believe that the future power plant will be connected to that substation. At this early stage, it is still unclear who will fund the transmission infrastructure needed to inject the power generated from the plant into the national grid even though it is very likely that either TANESCO or the private sector will fund it.

## Project Description

a. (Q) The proposal says that "Upon completion of phase two, TGDC in partnership with AfDB and other DPs would tender out the construction, operation and maintenance of a 100MW geothermal power plant to an Independent Power Producer (IPP)". What will be the TGDC business model for power generation? Will TGDC be responsible for selling steam to an IPP that will then generate power? Or would the IPP be responsible for generating steam and power generation? What evidence is there that the preferred TGDC business model will be viable and commercially attractive to prospective IPPs? An IPP might be more attracted by generating the steam and power, where they have control over the resource.

[AfDB]: TGDC business model to manage the steam has not yet been confirmed even though it is very likely that the Kenyan model (state-owned company owns the steam and enters into a sale agreement to supply the steam needed for power generation) will most likely be adopted. A final decision will be made once the work of Norton Rose Fullbright LLP is completed and the GoT formally adopts the sector key documents. There is no evidence that one model is better than the other in attracting IPPs for power generation as both will involve risks that must be either allocated among key project parties or fully mitigated.

One key factor of the project is that no private sector companies are willing to take the risk of geothermal exploration and therefore the only solution is for the GoT to undertake the process and own the resource. As such, either TGDC will have to enter into a sale agreement of the steam or enter include in the concession agreement a mechanism that allows the IPP to collect and transfer the steam to the power plant against agreed payments.

b. (Q) What is the immediate market for the power generated by the IPP – who will purchase the power?

[AfDB]: The IPP would sell the generated power to TANESCO under the provisions of a Power Purchase Agreement. The purchased power would be injected in the national grid.

## Project Components

a. (Q) Will the exploratory drilling and infrastructure development be done in-house by TDGC or will it be contracted to specialist geothermal developers? If in-house, does TDGC have the specialist technical and project management skills to undertake it effectively?

[AfDB]: TGDC does not have the capacity to undertake the exploratory drilling in-house. This will be done by a well experienced firm selected through an international competitive process with the hiring process being supervised by the AfDB's independent procurement department. Nonetheless, TGDC staff will benefit greatly from the implementation of these activities and in the future may be ready to implement such activities on its own.



## Brief Description of Expected Outcomes

a. (Q) The proposal says that the GoT will competitively tender out the construction of a geothermal power plant. As in the comment above, will the IPP contractor generate the steam and power, or just be responsible for the power generation using steam supplied by TGDC?

[AfDB]: As stated on a previous answer, while still to be decided, it is very likely that the IPP will purchase steam to TGDC, generate power and sell it to TANESCO under a Power Purchase Agreement.

b. (Q) The proposal says that the Project will “develop geothermal steam fields that are capable of generating up to 100 MW”. This is the maximum that could be available. What provisions are made if the test drilling reveals a much lower resource, say the 30MW that is mentioned later in the proposal? Will it still be attractive to an IPP?

[AfDB]: Based on preliminary studies and assessments, the envisaged capacity of the Ngozi geothermal site is expected to be 100 MW but it can be higher or lower depending on the results of the drilling activities. If the capacity ends up being smaller (e.g. 30MW) and depending on the modalities of engagement being considered by the GoT with the private sector, AfDB believes that based on previous IPPs it funded and the estimated CAPEX per MW for geothermal generation, even a minimum power plant size of 10MW could be considered to be delivered in the form of an IPP. Many variables (e.g. transaction costs, technology costs, creditworthiness of the off-taker, government support, capital costs, etc.) can influence the minimum size and attractiveness of an IPP scheme.

## Description of Project Costs

a. (Q) Will the SREP test drilling project be phased so that if the first test drillings do not demonstrate a good enough geothermal resource then the project can be stopped, without drilling all five test holes?

[AfDB]: The test holes will be installed by order of priority and initially shall target the most promising area of the field moving subsequently to less promising areas and so on. In case the results of the first and second holes are disappointing, AfDB, TGDC and other development partners will seriously consider abandoning the exploration of the field.

b. (Q) The budget includes “Compensation of Project Affected People”. What does this entail? There is limited information later of people being affected. How much of a social impact appraisal been done so far? And if not there should be one before the work commences.

[AfDB]: Information available on the compensation of Project Affected People is limited for the simple reason that the full Environmental and Social Impact Assessment (ESIA) and the Resettlement Action Plan are not yet finalized. Figures provided in terms of the total number were provided in the proposal following the conclusions of a preliminary assessment. Being a category 1 project, the beneficiary of the project must undertake a full social appraisal in line with AfDB’s Internal Safeguards System. This process is overseen by a team of safeguards that operate independently of AfDB’s energy department. The full ESIA must be published for consultations at least 4 months before approval by AfDB’s Board of Directors and no disbursements shall be made until the GoT compensates all Project Affected People. These compensations include physical and economic displacement.

## Risks and Mitigation Measures

a. (C) Private sector investment will only happen if 1. there is a sufficient geothermal resource for viable power generation, and 2. the business model is attractive. These are significant risks that should be included.

1. Phasing the test drilling, and only proceeding with all test drilling if the first holes demonstrate a viability is one risk reduction strategy.

[AfDB]: Agreed. The geophysical exploration already undertaken has located a geothermal reservoir with suitable and promising conditions for test drilling. To reduce the risks further, a prioritization of the holes starting with the most promising will be put in place.

2. SREP must be confident that there is a viable potential business model, likely to be commercially attractive for an IPP to invest.

[AfDB]: This is one of the key objectives of all development partners, including MDBs, as well as key stakeholders involved in the energy sector in Tanzania. While the business model is not yet defined, the risk that this will not happen is very limited for a few reasons: (i) there are a number of IPPs already operating in Tanzania, (ii) the non-IPP solution entails the GoT allocating its own budget to the construction of the power plant which is unlikely given the Low-Income Country status of Tanzania.

## SREP Investment Criteria

a. (C) The “affordability and competitiveness of renewable sources” is not adequately addressed. It only provides the general, global cost range for geothermal



power. The actual cost at a geothermal site is location specific. The proposal should provide an estimated cost of geothermal power at the Ngozi site, based on the likely geothermal resource (for example drawing on existing site specific survey information) and the likely cost of all geothermal development from test drilling to power generation. This will allow a proper assessment of whether this particular resource is affordable and competitive.

[AfDB]: The amounts provided in section 5.5 of the PAD are best estimates for geothermal exploration per MW and take into account the fact that some of the wells drilled may end up being dry. The cost should not be perceived as the sole driver in establishing the affordability of the resource but one should also consider the levelized cost of fossil-fuel based power generation in Tanzania that is currently estimated to equal USD 0.169 per kWh when compared to the estimated levelized cost for geothermal generation which equals USD 0.062 kWh.

b. (C)The "Economic and Financial Viability" criteria is not adequately addressed. There is only a very general statement about geothermal power, and there should be a statement as to the economic and financial viability of the proposed Ngozi site.

[AfDB]: The economic and financial viability analysis for this project is not yet finalized. However, its finalization is a pre-condition for internal review by a number of AfDB's internal committees and approval by the Board of Directors.

Financial Viability?

c. The text says "enable IPPs to be competitively involved in the development of geothermal power generation". As noted in other comments, what is the evidence that an IPP will find this geothermal site sufficiently attractive to invest?

[AfDB]: Please see previous answers on this matter.

Response 2 Simon Ratcliffe United Kingdom We have just noticed that there was no mention of the economic, social and environmental development impacts in the section on the fit with the SREP Investment Criteria. Please would the project team include these and update the proposal. Jun 30, 2017

Response 3 Simon Ratcliffe United Kingdom Project Rationale (Q) The AfDB say that the SREP PPG final report by Norton Rose Fullbright LLP should be available soon. And that it will include detailed technical and economic information on the geothermal resources of the country, as well as a legal and regulatory framework providing detailed roles of key stakeholders (TGDC, TANESCO, private sector) that are (and will be) involved in geothermal activities across the country. Jul 03, 2017

Can the AfDB confirm that the implementation of proposed SREP geothermal development project at Ngozi will only go ahead if it is consistent with that report? And that how it is consistent will be made clear when the SREP project is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors" as identified in answer to another question.

Justification for SREP Intervention

(Q) On the necessary transmission and distribution systems to connect power generated at Ngozi, the AfDB say that a substation owned by TANESCO in the city of Mbeya, around 23km from the Ngozi geothermal site, will be used. But it is still unclear who will fund the transmission infrastructure needed.

Can the AfDB confirm that the cost of the construction of the transmission line will be included when the Economic and Financial Viability is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors"? Also can the AfDB confirm that the SREP project will take a phased approach so that such costing can be updated when practical and that if costings demonstrate that the power generated would not be attractive for an IPP then the project would be stopped?

Project Description

(Q) The AfDB say that the TGDC business model to manage the steam has not yet been confirmed even though it is very likely that the Kenyan model (state-owned company owns the steam and enters into a sale agreement to supply the steam needed for power generation) will most likely be adopted. A final decision will be made once the work of Norton Rose Fullbright LLP is completed and the GoT formally adopts the sector key documents.

Can the AfDB confirm that the viability of the chosen business model and any associated risks will be addressed when the project is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors"? This includes whether the chosen business model will be viable and commercially attractive to prospective IPPs.

SREP Investment Criteria

(Q) Concerning the "Economic and Financial Viability" criteria: the AfDB say that the economic and financial viability analysis for this project is not yet finalized. However, its finalization is a pre-condition for internal review by a number of AfDB's internal



committees and approval by the Board of Directors.

Can the AfDB confirm that internal review by a number of AfDB's internal committees and approval by the Board of Directors will actively consider the economic and financial viability of the project?

Response 4 Leandro Azevedo

AfDB

Jul 13, 2017

#### Project Rationale

(Q) The AfDB say that the SREP PPG final report by Norton Rose Fullbright LLP should be available soon. And that it will include detailed technical and economic information on the geothermal resources of the country, as well as a legal and regulatory framework providing detailed roles of key stakeholders (TGDC, TANESCO, private sector) that are (and will be) involved in geothermal activities across the country.

Can the AfDB confirm that the implementation of proposed SREP geothermal development project at Ngozi will only go ahead if it is consistent with that report? And that how it is consistent will be made clear when the SREP project is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors" as identified in answer to another question.

[AfDB]: In considering projects for the deployment of financing, AfDB undertakes detailed technical, economical, financial, legal, environmental and social assessments. Furthermore, it ensures that any risk raised by any particular feasibility study/assessment is properly addressed. In order to that, AfDB takes into account all relevant project background information. The scope of work of Norton Rose Fulbright LLP was carefully reviewed by the Government of Tanzania, AfDB and other relevant players in the geothermal space in Tanzania and will certainly be taken into consideration prior to "internal review by a number of AfDB's internal committees and approval by the Board of Directors".

#### Justification for SREP Intervention

(Q) On the necessary transmission and distribution systems to connect power generated at Ngozi, the AfDB say that a substation owned by TANESCO in the city of Mbeya, around 23km from the Ngozi geothermal site, will be used. But it is still unclear who will fund the transmission infrastructure needed.

[AfDB]: The exploration drilling phase of the Ngozi Field has not started and the potential has not been fully proven at the moment despite the obvious potential. AfDB, the Government of Tanzania and other energy sector development partners will engage in such discussions in due time to ensure that the power plant is rolled out in a timely manner and under a structure that ensures value-for-money and minimizes transaction costs. The Government of Tanzania can either mobilize its ODA support to fund the transmission infrastructure or request the IPP to finance it and build it as part of the project's scope for which the cost would have to be passed through under the Power Purchase Agreement in the form of a higher tariff per kWh.

Can AfDB confirm that the cost of the construction of the transmission line will be included when the Economic and Financial Viability is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors"? Also can the AfDB confirm that the SREP project will take a phased approach so that such costing can be updated when practical and that if costings demonstrate that the power generated would not be attractive for an IPP then the project would be stopped?

[AfDB]: The costs of the transmission line will not be included in the economic and financial viability of this proposed project. The analysis will be made in the context of the power plant itself and when key inputs are for the assessment are well known (e.g. installed capacity).

#### Project Description

(Q) The AfDB say that the TGDC business model to manage the steam has not yet been confirmed even though it is very likely that the Kenyan model (state-owned company owns the steam and enters into a sale agreement to supply the steam needed for power generation) will most likely be adopted. A final decision will be made once the work of Norton Rose Fullbright LLP is completed and the GoT formally adopts the sector key documents.

Can the AfDB confirm that the viability of the chosen business model and any associated risks will be addressed when the project is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors"? This includes whether the chosen business model will be viable and commercially attractive to prospective IPPs.

[AfDB]: The definition of TGDC Business Model will be defined over the course of next years as the implementation of the proposed project progresses and the outputs of the exploratory drilling phase are known. This will involve discussions and negotiations between the Government of Tanzania and its development partners, including AfDB, other MDBs and other DFIs present in the country.



It is counterproductive, at this very early stage, for the business model of TGDC to be defined. Therefore, AfDB cannot confirm that the viability of the chosen business model and any associated risks will be addressed when the project is subject to "internal review by a number of AfDB's internal committees and approval by the Board of Directors".

SREP Investment Criteria

(Q) Concerning the "Economic and Financial Viability" criteria: the AfDB say that the economic and financial viability analysis for this project is not yet finalized. However, its finalization is a pre-condition for internal review by a number of AfDB's internal committees and approval by the Board of Directors.

Can the AfDB confirm that internal review by a number of AfDB's internal committees and approval by the Board of Directors will actively consider the economic and financial viability of the project?

[AfDB]: AfDB can confirm that the Economic and Financial Viability of the project will be assessed as part of "review made by a number of AfDB's internal committees and approval by the Board of Directors".

Response 5 Simon Ratcliffe United Kingdom Please note that this question, noted previously, does not appear to have been answered. Jul 17, 2017

"We have just noticed that there was no mention of the economic, social and environmental development impacts in the section on the fit with the SREP Investment Criteria. Please would the project team include these and update the proposal."

Please would you provide a response. Thank you.

Response 6 Leandro Azevedo AFDB Please note that this question, noted previously, does not appear to have been answered. Jul 17, 2017

"We have just noticed that there was no mention of the economic, social and environmental development impacts in the section on the fit with the SREP Investment Criteria. Please would the project team include these and update the proposal."

[AfDB]: The SREP Investment Criteria section of the PAD was updated to include an assessment on the "Economic, Social and Environmental Development Impact" of the project. Please see paragraph 5.7 on page 15 of the PAD circulated by the CIF AU on 13 July 2017.

The sentence reads:

5.7 Economic, social and environmental development impact: The shortage of electricity supply in the Mbeya region where Ngozi is located is hampering the social and economic development of the region despite the abundant and unexploited agricultural, fishing, and natural resources. Mbeya's weather couples with its fertile volcanic soil could enable the region to produce large amounts of food crops such as maize, rice, bananas, beans, cassava, potatoes, soya nuts and wheat. The region already produces a few cash crops such as coffee, tea and cotton. The Lake Malawi located in the west border of the Mbeya region has great potential for fishing. Mbeya has also a variety of mineral deposit including gold, iron, limestone, marble, travertine, kaolin, copper, salt and gemstones which remain unexplored. Thus, the development of a base-load and productive power plant will promote the: (i) increase the productive use of electricity across households, businesses and social facilities, (ii) contribute to reduce GHG emissions, (iii) increase in agriculture, fishing, and mineral extraction, (iv) development of manufacturing as well as small and medium industries, (v) the development of a tourism industry, (vi) job and wealth creation, and (vii) increase in public safety in serviced areas due to street lighting.

5.8 In addition, the project will play a central role in stimulating the creation, over the long-term, of a local geothermal economy. At the same time, and if the exploration drilling is successful, it could mark the beginning of an expansion cycle for TGDC's business model and role it plays in the wider energy sector in the country. This could contribute in the future for additional installation of generation assets from renewable energy sources, namely in geothermal, in a sustainable and environmentally friendly way.

Response 7 Simon Ratcliffe United Kingdom Dear Mafalda, Jul 18, 2017

The UK is pleased to approve this project. Please thank the project team for their comprehensive answers to our queries.

We note that if the project is able to demonstrate the geothermal potential of the site, then the plan would be to develop a 100MW power plant costing an estimated USD 300m with private sector investment. The project team should ensure that full economic and financial analysis is carried out to clearly demonstrate that the envisaged power plant would be an attractive and viable option for investors before the project seeks Board approval.

We would also request an assurance that results are correctly attributed to this exploratory phase and also that future results are not double counted once the full



plant has been built.

Kind regards,  
Simon

Comment 3 Daniel Morris United States Dear CIF AU, Jun 23, 2017

Thank you for the opportunity to review and comment on this geothermal project in Tanzania. In addition to the inquiries made by our Swiss and UK colleagues, we have the following questions:

- 1) Why is this project rated Cat B and not Cat A? Does the operation have the potential to lead to geothermal development in the future?
- 2) Resettlement impact is expected to impact around 450 people. Would that level of impact also necessitate a Category A rating as it is greater than 200 people? Has a resettlement policy framework been prepared?
- 3) Has an ESMF been prepared and released? If not, when is the expected release time?
- 4) When will this project come to the AfDB Board?

We look forward to reviewing your responses.  
danny

Response 1 Leandro Azevedo AFDB Jun 28, 2017

1) Why is this project rated Cat B and not Cat A? Does the operation have the potential to lead to geothermal development in the future?

[AfDB]: Paragraph 4.20 on page 11 is inaccurate as it suggests the project will not be Category 1. This paragraph has been revised to ensure that it is clear to everyone that the project will be Category 1 (pending confirmation from AfDB's Environmental and Social Safeguards). This means that the project will have to deliver a full Environmental and Social Impact Assessment, a full Resettlement Action Plan and an Environmental and Social Management Plan.

The project's goal is to prove steam capacity and develop the steam gathering system to allow for power generation of a power plant of up to 100 MW at a second phase.

2) Resettlement impact is expected to impact around 450 people. Would that level of impact also necessitate a Category A rating as it is greater than 200 people? Has a resettlement policy framework been prepared?

Any project requiring a Full Resettlement Action Plan under the provisions of the AfDB's policy on Involuntary Resettlement is always considered a Category 1 project.

Preliminary studies have been undertaken and the final reports mentioned on answer 1) above will be finalized in the coming months and will include a full Resettlement Action Plan. These studies shall be reviewed and cleared by AfDB's independent safeguards team.

3) Has an ESMF been prepared and released? If not, when is the expected release time?

A summary of the full ESIA will be disclosed on AfDB's website at least 120 days before approval by our Board of Directors.

4) When will this project come to the AfDB Board?

Current estimates point for an approval before the end of November 2017.

Comment 4 Daniel Menebhi Switzerland Dear Mafalda, Mar 22, 2018

Thank you for circulating this request.

We have the following questions:

1. Why was this request not made by the AfDB ahead of the original deadline for submission to the AfDB Board (September 2017)?
2. (Question to CIF-AU only) Does that delay have any formal consequences on the project and its status regarding SREP approvals?
3. What are the relevant changes and why do they change the situation sufficiently to make a re-appraisal of the project necessary for AfDB, taking into account that the Results Framework is unaffected as stated?

Please ask the AfDB to answer questions 1 and 3 and let us have your point of view on question 2.

Response 1 Leandro Azevedo AFDB Mar 28, 2018

[Switzerland]: Why was this request not made by the AfDB ahead of the original deadline for submission to the AfDB Board (September 2017)?

[AfDB]: Despite a delay in meeting the originally planned board date (November 2017), AfDB did not submit a request for extension as the project was firmly scheduled to be presented to our Board of Directors during December 2017 and ahead of the deadline imposed by the SREP Pipeline Management Policy of March 2018. Following a request received by the Government of Tanzania, the project was dropped from the meeting until further consultations could happen.



[Switzerland]: What are the relevant changes and why do they change the situation sufficiently to make a re-appraisal of the project necessary for AfDB, taking into account that the Results Framework is unaffected as stated?

[AfDB]: The request from the Government of Tanzania consisted in changing the procurement plan of the project in an attempt to optimize the use of non-grant resources in the context of the project. Both parties are in the process of discussing the organization of a dialog mission to discuss the envisaged changes requested by the Government of Tanzania and reach an agreement on the way forward including setting a new date for MDB approval.

One of the critical aspects of the mission will be to ensure that the scope of the project and the financing plan remains unchanged so and the Results Framework initially approved is not impacted. If a major change on the design of the project is requested by the Government of Tanzania, AfDB will ensure it submits, for the consideration of the SREP Sub-Committee, an addendum to the original proposal requesting the committee to weigh on it.

Response 2 CIF-AU

CIF-AU

(Question to CIF-AU only) Does that delay have any formal consequences on the project and its status regarding SREP approvals?

Mar 28, 2018

We do not anticipate material impact on the project or SREP approvals other than delayed implementation and delivery of results.