

**RESPONSES TO COMMENTS FROM THE CTF TRUST FUND COMMITTEE ON THE
DEVELOPMENT POLICY LOAN (DPL) TO PROMOTE INCLUSIVE GREEN GROWTH AND
SUSTAINABLE DEVELOPMENT IN HIMACHAL PRADESH**

Comments from GERMANY

Germany very much welcomes the Indian approach to gauge reactions in the TFC early on, before formally submitting a proposal. We believe that this might prove an excellent device to shorten approval processes.

As the German government bilaterally already supports the energy sector in India with newly committed funds of 330 million € (government negotiations in 2012) with a focus on RE i.a. on hydro energy in Himachal Pradesh, and additionally signed a "Joint Declaration of Intent" for the establishment of so called Green Energy Corridors (Smart Grids) with a total of 1 billion €, we expressly support further, coordinated efforts in this sector and region. Our comments below therefore should be read with the understanding that we are trying to contribute constructively to the elaboration of the CTF proposal.

Specific comments

1. GER welcomes the proposal's focus on hydropower, and emphatically supports the assessment that hydropower, pump-storage and strong interregional transmission capacities will play a crucial role for system stabilization, in particular given that intermittent renewable energy resources are likely to be significantly expanded;
Thanks.
2. Even though the proposal features a comprehensive description of sub-sectorial bottlenecks (e.g. lack of appropriate hydro policy framework), it provides only little information on how these issues shall be addressed, and how the proposed substantial volume of CTF funds shall be employed. Apart from the creation of department of environment, science and technology, there is hardly any elaboration on planned policy and institutional reforms;
The version of the report was revised after the initial submission and has been detailed in Paragraph 15 and 27 of the revised report.
3. Many of the key goals and objectives of the DPL point towards important sustainable development goals, which although they are directed towards crucial development issues, appear unlikely to directly contribute to the key objectives of the CTF. This might significantly complicate measuring the future impacts of the proposed DPL against the results framework of the CTF, in particular:

- a. **How shall the GHG benefits of green growth and increased hydro sustainability (achieved through improved impact assessments and the creation of benefit sharing mechanisms) be measured?**

India's power generation continues to be coal dominated despite environmental concerns. The situation is not likely to change in the next plan period where over 65 GW capacity will be based on coal due to lack of credible alternatives to coal. Hence, any measure that obviates coal based generation and promotes cleaner form of energy is of immense importance.

- b. **In particular for large hydro projects, better environmental and social sustainability often means a significant reduction of generation capacity and hence fewer GHG reductions.**

The social and environmental safeguards provided by the Government of India under different statutes are being followed only in limited cases. The project sizes are not being altered at all as a consequence they continue to be what they would be without these safeguards. DPL supports implementation of these safeguards properly with some additional benefits to the local population to obtain their cooperation (and improve their standard of living) in course of implementation of these projects. As a consequence the trajectory of implementation, these projects are substantially speeded up without any change in the project size. Also, most of these are run of the river plants that do not include very large sizes requiring large submergence.

- c. **In other words, with the CTF's main objective being swift and large scale GHG mitigation projects (while minimizing related adverse social and environmental effects and maximizing co-benefits), the proposed DPL seems to turn the CTF intervention logic on its head with GHG reductions merely being a co-benefit of a program mainly focused on much broader development and sustainability goals: we do appreciate the focus on development and environmental benefits, but find it also important to be able to show results within the framework of the CTF.**

As mentioned before the benefits of Hydropower projects are primarily reduction of carbon dioxide by obviating coal based generation. However, without associated co-benefits for state and project affected families, CO2 reduction will not be achievable. Hence, CO2 remains the key benefit of the DPL achieved through co-benefit to different stakeholders.

4. **Moreover, the DPL appears hard to square with other CTF Investment criteria such as transformational impact: According to the proposal, "due to conducive central and state policy support", "the pace of hydro development has been faster in HP than in any other state". Hence there appears to be little reason to believe that the mere**

speeding up/modification of (already conducive) permitting and commissioning procedures will trigger any major transformational impact;

Transformational impact is achieved through multiple means:

- *GHG Reduction – India’s march towards a lower towards a low carbon economy will never be possible without up scaling hydropower in HP. This will have a catalytic impact since HP does become a role model for other states and has significant hydro potential.*
- *Impacts on Financing - India’s public finances are strained with significant fiscal and current account deficits. Imported fuels contribute very significantly to such deficits. Hydropower apart from being environmentally sustainable provides India the ability to reduce its dependency on imported fuels which has very significant consequences on the Indian economy. In fact it may prove to be one of the significant influences in India’s quest for development and sustainability.*
- *Given the strain on finances India will have to rely on private capital for both debt and equity. Private finance is scarce and typically is directed towards investment avenues that feature lower risks. The HPDPL project through its various measures will significantly reduce the development risk and hence encourage the private sector developers and financiers. Thus, investments through the DPL will have a very significant crowding in impact through such financing.*

- 5. In addition, when discussing replication potential for other states, it would be extremely helpful to learn about social and environmental safeguard policies as well as projections for rain water fall/flow rates of rivers and tributaries.**

Steps taken by HP are in described the response to UK’s comments (see below).

- 6. According to the proposal, a comprehensive system of royalties (up to 30% of power generated) and fees (1.5% of construction cost) has already been in place since 2006 and has provided state and central governments budgets with very substantial additional non-tax revenues. It is therefore unclear, how the limited amount of CTF funds and merely an additional 1% of power sales to a new benefit sharing mechanism can achieve any major additional development or transformational impact. In other words, we are not sure how limited CTF funds will achieve what the comprehensive scale system of royalties already in place has not been able to provide?**

The framework is in place since 2006 but revenues will accrue in substantial measure only when the projects are constructed and are operational. While this is inadequate to have a transformational impact either on India’s GHG reduction or on the economy, however, the CTF financing even though small will (in contrast to conventional project investments) go towards removal of some of the most difficult developmental barriers which will then permit the royalties/fees to flow in true measure. Hence, CTF funding is of considerable importance at this stage.

- 7. On the other hand, we understand that unaccounted-for-power as well as cost-efficient tariffs in the light of ineffectual fee payment systems pose challenges.**
GOHP separately addresses them through its distribution systems. Currently HP has one of the most efficient distribution systems considering its terrain and geography. Further, HP is one of the most efficient states with low AT&C losses (despite hilly terrain) and high collection efficiency.
- 8. The intention of establishing a Local Area Development Fund as a community based benefit sharing program with direct cash transfers to beneficiaries seems sensible, and directly reflects the political will of the current government. We would welcome more information on this Fund and its functions in the proposal. It would also be helpful to read about strengthened capacity for the Department of Environment, Science & Technology which will be in charge of this mechanism.**
Additional details have been provided in paragraph 30 (b) and footnote 7 (page 13).
- 9. Private investment incentives: We are wondering whether the benefit of streamlined permission procedures might not be cancelled out by the planned penalty system and additional levy of 1% of power sales for the capitalization of the benefit sharing mechanism.**
Both these aspects (penalties and benefit sharing) are very different. Penalties are in fact a measure imposed by HP Government to ensure discipline in following the project time schedule. HP Govt. provides strong facilitation support alongside to the developers during the development stage. Only the developers who fail to genuinely meet their performance are imposed with penalties.

The benefit sharing mechanism is a measure to derive CO2 benefits through a participatory mode. This has already been elaborated in point number 4 above.
- 10. GHG co-benefits: In addition to providing broad state and national-level GHG estimates,**
- a. the proposal should provide a more detailed picture on how the streamlining of permitting, commissioning and implementation procedures will be reducing time and cost overruns with regard to the roll-out of HP's hydropower development pipeline (and beyond).**
This has been addressed in Paragraph 27.
 - b. Similarly, the proposal should provide a more detailed account regarding the assumptions and methodology for the calculation of the "transformational ratio" and ambitious leverage ratios.**
This has been addressed in paragraphs 46-47 and 63-65.

Comments from FRANCE

As agreed during the TFC meeting, we very much welcome the opportunity to share our comments on the Proposal for a Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh Project in India.

We would like to thank again the Indian authorities for their presentation to the Committee and for their very useful early engagement with the CTF trust fund Committee. We share the view that hydroelectricity has an essential role to play in an Indian low-carbon strategy. We also acknowledge the focus put on environmental and social monitoring and evaluation systems, an essential element of projects which have many systemic impacts.

Specific comments

1. We support many of the specific comments issues raised by the German chair, in particular the idea that the matrix of results may encompass too broad a scope of results and thereby overestimate the actual impact of the project. In our view, this matrix should be precisely tied to the activities associated with the DPL (whose value added needs thereby beforehand to be precisely described), in particular when dealing with the computation of GHG emissions reductions and financial leverage. If the project for example contribute to the acceleration of certain specific procedures, with an impact on the construction timing, it should be very specifically accounted for, with a proper monitoring system. Also, the baseline should be specific to the project. *Paragraphs 33-36 detail out incremental impact on account of initiation of these measures in terms of GHG reduction potential. Annexure C provides further information.*

Comments from UK

1. **Carbon savings methodology**
 - a) We would like to see further analysis of the expected carbon savings from the DPL as the proposal is developed further. The UK would be happy to provide suggestions on how to calculate and attribute the carbon savings to ensure that they do not over or understate the impact of the project.
DPL proposal and the computations related to expected carbon savings have been revised. The comment is well taken and has been incorporated in the methodology (refer paragraph 36 and Annexure C).
 - b) As far as the DPL primarily helps to improve regulatory framework and processes to speed up the implementation of already allotted hydropower projects and does not actually invest in power plants that would otherwise not happen, the CTF should only attribute the savings that are additional or it should give an estimate of the savings that occur earlier as a consequence of the CTF intervention.
According to the reforms planned under DPL, the CTF funding would support the initiatives planned under the DPL as explained in Paragraph 26 and 27 of the DPL proposal. The DPL would result in preponement of hydro power capacity planned in future and would further lead to new capacity addition.

As per the comment, in order to calculate the incremental impact of DPL, incremental hydro power capacity has been considered. The computations hence have been revised both in the summary table, and the DPL proposal (refer paragraphs 33-36 and Annexure C).

- c) **Currently used methodology of calculating carbon savings:** With respect to the currently used methodology of calculating carbon savings– using the same assumptions as the proposal does, the total GHG impact still seems to be significantly lower than suggested by the proposal, calculated to be 490mt CO₂e instead of 660mt CO₂e, suggesting that the proposal is overestimating the results (based on 69 501GWh per year over 20 year lifetime, 0.45 load factor, and 0.78tCO₂e/MWh emissions intensity).

Same as points (a) and (b) above.

2) Alternative ways of calculating carbon savings in the context of a DPL, in order to account for attribution and additionality:

- a) **One way of approaching the estimate of carbon savings would be as if the CTF investment represents one part of the overall hydropower investment, though crucial to the implementation. E.g. if CTF funding represented 1% of the overall investment, we'd attribute only 1% of the total carbon savings to the CTF.**

1% at par with the project investment may not be appropriate in this case. DPL is a policy lending instrument and hence is likely to have a strong multiplier effect. The measures initiated through the DPL will have relatively much higher leverage value (elaborated in paragraphs 63-65) than conventional project based investments. Hence, it may not be appropriate to link the CTF investment to specific projects in HP.

- b) **Another approach would be to use a net present value (NPV), reflecting the altered distribution of the benefits from carbon savings over time (e.g. using the social cost of carbon) as a result of CTF intervention and the increase in the NPV compared to the counterfactual.**

India does not follow any standard approach for computation of social cost of carbon. Hence, only the direct carbon savings that can be achieved by obviating coal based generation has been quantified.

2. Other comments

- a) **We would also like to see a more detailed breakdown of public and private co-finance sources.**

Detailed breakdown of public and private co-finance sources has been described in paragraphs 63-65 and Table 7.

- b) **To determine the additionality and to make the case that the CTF is the correct source of financing, the proposal needs to outline more clearly what the reforms will address**

and how specifically they are tailored to facilitate investments into renewable energies rather than being a general governance reform.

Relevant information has been added in sections in the DPL proposal in paragraphs 15, 20-21, 26, and 66-67.