

November 17, 2011

Comments from Germany on the Investment Plan of India

Dear Patricia, dear CTF-India Team,

as already stated in the recent CTF meeting, Germany is pleased and proud to support the well developed and eloquently presented Investment Plan for India.

Please find attached some comments and questions, posed in a manner of constructive collaboration.

Kind regards
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Comments on CTF Investment Plan for India

Cost/Financing : Volume of the Investment Plan: **775 million**
US\$

(CTF will be co-financing a volume of **325 million**
US\$ of World Bank and ADB financing)

Proposed CTF funding:

- Develop. Policy Loan / Carbon Neutral State:
100m US\$
- Nat. Enhanced Energy Efficiency Mission:
125m US\$
- National Solar Mission: 550m US\$

Purpose of the program: To support a set of projects through the CTF which have been identified for their impact on social and economic development with significant co-benefits for climate change mitigation.

Summary & Overview

The overall concept underlying the Indian investment plan proposed for approval, appears conclusive. The focal areas of activity proposed seem coherent with the policies and regulations of the Indian government and intend to address significant investment barriers indirectly impacting economic growth and India's carbon footprint.

India has experienced a success story with respect to wind energy which has graduated to commercial viability. The ultimate objective should be to achieve commercial viability of other RE sub-sectors in the medium term and to reach grid parity in the longer term perspective.

The CTF should address problems from the angle of private sector players, state utilities and financing institutions:

- The core bottleneck for smaller RE developers is the availability of equity as well as commercial debt. This is sometimes compounded by an unfavourable investment climate. The CTF Investment plan addresses these issues in an adequate way.
- Commercial banks tend to stay away from those RE sub-sectors in which they have little experience and from developers without profound track record. The CTF Investment plan is giving this problem due attention.
- As for large scale projects in the range of 50-100 MW utilities at the national and state level will have the financial strength to shoulder projects. The key bottleneck for utilities is the availability of long-term concessional debt. Also, for some innovative technologies and R&D there is a requirement for loan funds with a higher concessional element. We suggest that CTF funds should be used to some extent to leverage project development by larger utilities.
- Public sector financing institutions are dominating RE finance to some extent, but are still far away from being a catalyst for private sector engagement. We suggest that the investment plan should place more emphasis on synchronising CTF measures with the programmes of public finance institutions.

We fully support the principle of the CTF to incentivise and to “crowd in” private sector investment. In parallel to complementing engagements by multilateral donors the CTF can maximize its impact by coordinating with and complementing all donors’ activities.

Specific Comments on Phase I

Himachal Pradesh

Close cooperation and exchange regarding policies and regulatory standards to be supported by a Development Policy Loan in Himachal Pradesh would be highly desirable.

Remaining questions may be: How shall the DPL (provided to the state government) address in particular the hydrological, geological, environmental and social factors as quoted in the investment plan? Do these aspects not rather require technical assistance/grant funding?

Through IREDA, small-scale hydropower plants in Andhra Pradesh and Karnataka have been refinanced, and through Power Finance Corporation (PFC) the rehabilitation of hydropower plants, inter alia in Orissa and Uttarakhand are refinanced. It seems a promising idea to include the respective experiences. Based on the significant experience in supporting investments for the construction of new hydropower projects and rehabilitation of existing HPPs, also of smaller size through implemented lines of credit with IREDA, IIFCL and REC, coordination regarding the extension of the policy to other states beyond Himachal Pradesh is desirable.

It may be expected that pump-storage HPPs and strong interregional transmission capacities will play an increasing role in India if renewable energy resources are further expanded, mainly for system stabilization reasons.

Even though the sub-sectoral bottlenecks are adequately covered in the section (e.g. lack of appropriate policy framework) there is no detailed proposal on **how to address these problems through the injection of CTF funds**.

National Mission for Enhanced Energy Efficiency

The envisaged support to the SEEP Initiative and the PAT scheme is in principle complementary to many activities already performed through development cooperation with India.

The subsidy scheme envisaged under SEEP has the potential to support market transformation in the area of electric fans. However, the **implementation structure and the exact use of the envisaged financial incentives remain unclear**. Where are they applied? On the equipment supplier level or on the client level? What is the cost of a super efficient fan vs a normal fan (incremental cost)? What is the annual energy saving that can be achieved through such an EE-fan, and thus what is the payback period? Based on the payback period, is a highly subsidized intervention really

necessary? Can the cost of the fans be driven down by supporting their production? If not, what would be the sustainable impact? How can the quality of local manufacturers be ensured to deliver the EE saving and how can the installation of the EE-fans be monitored and verified? Also, the **degree of concessionality** of the CTF funding is a critical element as the scheme is probably providing grants so that there can be a mismatch with loan funding provided by the CTF. These issues need at least clarification at the point of a project proposal.

Concerning the proposed financial support to the PAT scheme it remains unclear **how and to whom such incentives shall be delivered**: In the form of investment grants or subsidized loans to companies participating in the scheme? Who would deliver such support? The PAT has to our knowledge been designed by the Indian government as a “market based” scheme where no additional subsidies or incentives were envisaged. Why is that approach revised to include the use of additional incentives? Is the Indian government prepared to provide budget funds for such incentives in the future given the limited scope of the concessional support that CTF and others can offer?

In general, the PAT scheme is a very interesting approach from the perspective of policy as well as economics. It has to be made explicit, though, that the value of “energy saving units” as it will be introduced through the scheme basically has the same effect as an increased energy price or, in fact, reduced energy subsidies, which still tend to be substantial in India. **If it has proven impossible to eliminate energy subsidies in many sectors in the past, then why should such a permit scheme be possible to implement?** Furthermore, the **transformative impact of such a so-called “white-certificate-scheme” fundamentally depends of its design** (e.g., the way the certificates are distributed). In some cases, e.g. if the initial permit allocation is free of charge, the transformative impact can be substantially lower as **compared to the impact of a simple energy price increase. What is the envisaged transformational ambition in this case?**

Partial Risk Guarantee for EE Technology

Setting up of a Partial risk guarantee fund is part of the National Mission on Enhanced Energy Efficiency. The CTF contribution would basically further increase the fund corpus, which currently consists of contributions from Government of India and GEF for further leveraging.

The overall approach of providing credit enhancement for bank lending to EE and RE projects makes sense in a credit culture that is very much dominated by asset-based and “relationship-based” lending. The approach is in principle complimentary to existing activities (e.g. Germany’s cooperation with institutions like SIDBI and IREDA that also seek to improve credit supply to EE and RE projects).

Our impression is that the **exact focus of interventions of the risk guarantee fund needs clarification**, e.g.:

- In the National Mission on Enhanced Energy Efficiency, the focus of the proposed risk guarantee fund lies to our knowledge on smaller EE investments. The challenges and barriers in this segment differ from the financing of large RE projects which also seem to be the focus of the CTF proposal for a guarantee facility. Catering for such **diverse target groups with one facility** can be a challenge.
- Are only commercial banks eligible for the envisaged guarantees? A large part of lending for EE and RE in India is undertaken by public sector banks which face the same challenges as private commercial banks. We strongly recommend that all financial institutions lending for the desired purposes **(private and public) should be eligible** to use the partial risk guarantees.

Solar Mission

The National Solar Mission requires a huge amount of funding. As it will mainly be implemented by the private sector, the CTF envisages channelling additional funds through financing institutions and commercial banks. Currently, several studies are implemented to assess the potential for large scale CSP projects.

With respect to CSP projects to be implemented by NTPC or other utilities, we see a huge financing need, as these projects need to be in the range of at least 50 MW in order to be viable. This means a project size of at least 250 million EUR. Co-financing from bilateral along with multilateral donors and the CTF might be one option.

With respect to the three financing options we have the following comments:

- i. Solar parks: CTF funds could be used for grid access, smart grid technologies and water supply (in case of CSP sites with no water access); as several parabolic trough projects are under preparation CTF funds could also be used to co-finance the Solar Tower technology.
- ii. New and innovative technologies: these include storage as well as hybridization of larger scale CSP plants earmarked for financing
- iii. World Bank is already discussing a loan fund vehicle targeted to accelerate lending to private developers through commercial banks (see page 44, private sector intermediation for details). Would it be appropriate to take this up in Phase I already?

Specific Comments on Phase II

North Eastern Power System Improvement Project

While current investment barriers are not yet highlighted in the Investment Plan, further improvements of power systems in the NER appear particularly useful to address low electricity access and availability levels in the region. Specific figures for transmission and distribution losses in the NER are not provided. Thus, the potential impact on reduced CO2 emissions is difficult to assess.

Rajasthan Urban Transformation

Detailed comments:

4. (i) energy efficiency in water supply systems; (ii) methane recovery from sewage treatment plants; and (iii) energy recovery from solid waste management systems.	These are suitable and possible target fields for GHG.
5. Concessional financing will be complemented by introduction of infrastructure service fees which will achieve full cost recovery.	From our experience, the introduction of full cost recovery service fees for infrastructure services as proposed above (water, sewerage, waste) is very challenging and practically almost impossible in India in these sectors. High operation cost subsidies will be required to cover full cost.
11. – 12. Financing plan shows 490 m USD to be disbursed up to 2016	With a view to generally difficult project identification, municipalities' low capacity to implement projects, and difficulty to cover costs through tariffs/service fees the mentioned amounts and timetable seem ambitious.

Private Sector EE and RE Guarantee Facilities

As stated at the beginning, these activities seem very relevant and targeting the bottlenecks.

Private Sector Intermediation

Fact finding studies currently under way inter alia explore possibilities on Union-State levels for a pilot funding structure to mobilize more commercial bank financing. Based on the experience with the lines of credit for the promotion of renewable energy projects via IREDA or REC, the resulting structure should really focus on enabling co-financing from the private sector.

CTF Investment Criteria

The following points are structured along the CTF Investment Criteria:

1. Potential for GHG Emissions Savings

The potential for GHG emission savings is likely to be substantial, especially, if the replication potential is taken into consideration as well. However, the document as proposed does not contain these estimations in an easily accessible manner or not at all. In part, this information was provided in the presentation during the Trust Fund Committee meeting in Nov. 2011 in Washington. From our point of view, the final Investment Plan should contain such figures and be transparent in how they have been estimated.

We recognize that estimating the Potential for GHG Emission Savings is particularly difficult without project detail and even more difficult for the case of a Development Policy Loan. This is even more difficult with respect to the indicator showing the CTF Funds per tonne of avoided CO₂ emissions. Nonetheless, for a specific project proposal it seems key that for a Development Policy Loan at least the mechanisms that should lead to the emission savings (as they are facilitated by the DPL) are illustrated and quantitative estimations for realistic emission savings are presented.

2. Cost-Effectiveness

The cost of each ton of CO₂ saved related to the CTF support has not been estimated/reported within the Investment Plan. It seems desirable to have more information on this. Apparently some estimations have been performed for the presentation at the Trust Fund Committee Meeting.

It has to be noted though, that the indicator relating CTF-Dollars spent per ton of saved CO₂ emissions has its limits with respect to illustrating cost effectiveness of the abatement. This is even more so for the case of policy loans, since in this case, the CTF funds are not directly invested in technology and infrastructure but rather used to facilitate, e.g., policies and processes.

3. Demonstration potential at scale

The Investment Plan focuses on issues which currently need attention in order to move into the direction of a global low carbon economy. On the whole it addresses the right sectors which are growing rapidly. This induces by itself an enormous demonstration potential. If at this point in time role models get financing and can build confidence in the respective technologies, then this will be a very relevant contribution and in line with CTF goals.

4 Development Impact

The focal areas of activity seem coherent with the policies and regulations of the Indian government and intend to address significant investment barriers. The Investment Plan is embedded in a number of main strategies of the government. One critical issue may be that the availability of funding through the CTF should lead to increased speed in implementing the programmes but not to a lower quality of the projects in terms of project preparation and evaluation of the social and economic impacts.

It should be insured that in addition to the pure infrastructure financing aspects these processes accompanying the investment are strengthened as well.

5 Implementation Potential

The Investment Plan contains a thorough policy and regulatory analysis for the priority sectors. The issue of involving the private sector is present throughout the proposed plan.

As the plan is embedded in a number of current strategies and plans of the Indian government, the implementation seems rather consistent and in line with overall goals of the GoI.

However, the issue of potentially subsidized energy use by keeping prices artificially low is not even mentioned. Is this considered not relevant? If policy barriers with respect to eliminating energy subsidies seem too high to tackle the issue, this can be explained, but in a sector analysis one would need to be explicit about this.

6 Additional Costs and Risk Premium (formally not a criterion for Investment Plans)

CTF financing generally aims at tailoring the grant element to cover the identifiable additional costs of an investment (or the risk premium required, in order to make the investment viable).

The Investment plan provides a comprehensive analysis of the barriers and bottlenecks in the respective sectors in India. Much of the question whether the grant element is really tailored and whether the principle of minimum concessionality is implemented, hinges upon the specific project design. But the proposed project types (such as guarantee schemes) are generally compatible with this. For the case of a development policy loan this remains to be seen, but it seems to be a useful instrument with a lot of potential in general – if applied in an appropriate manner.