

CLIMATE INVESTMENT FUNDS

June 1, 2009

**DESIGN DOCUMENT FOR THE PROGRAM ON SCALING-UP RENEWABLE
ENERGY IN LOW INCOME COUNTRIES (SREP), A TARGETED PROGRAM UNDER
THE STRATEGIC CLIMATE FUND**

BACKGROUND

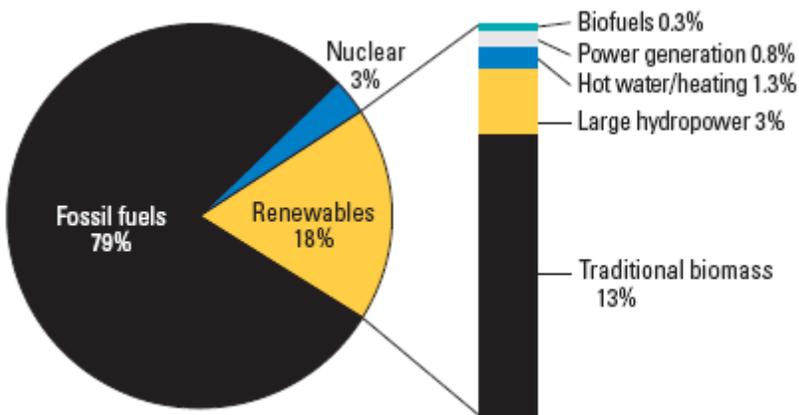
1. Low income countries face a dual challenge of increasing the availability of electricity and other commercial fuels needed for economic development and increasing access to the 1.5 billion people who have no access to electricity and are dependent almost wholly on biomass fuels for energy services. The majority of the low income countries and populations are in Sub-Saharan Africa and Asia, and electricity access is about 25 percent in Africa and 52 percent in Asia. In Latin America low income countries have access rates typically of around 60 percent. In a vast majority of these countries fossil energy use is highest in the residential and commercial sectors.

2. Presently most low income countries have low emissions of greenhouse gases due to energy use. Economic development will require these low income countries to increase commercial energy use substantially. The International Energy Agency (IEA) expects that Africa will require an additional 250 million tons of oil equivalent (Mtoe) between 2006 and 2030 and Asia (other than China and India) will require an additional 400 Mtoe to achieve their economic development goals.¹

3. Renewable energy comprises approximately 18 percent of total global final energy consumption (Figure 2), of which, 72 percent is biomass. The next largest renewable energy segment is large hydropower constituting 17 percent of total share of renewable energy. The balance 11 percent comprises other forms of renewable energy.

Figure 1 Renewable Energy Share of Global Final Energy Consumption, 2006

(<http://www.ren21.net>)



4. Low income countries are well endowed with renewable energy resources, though they use a tiny fraction of their potential. In Africa, less than 10 percent of their hydro potential is used. In Asia (excluding China), less than 25 percent of such energy resources are used. Africa and parts of Latin America and the Caribbean are well endowed with geothermal resources, yet remain relatively untapped. Similarly, there is strong potential to develop wind, biomass, solar

¹ IEA, World Energy Outlook, 2008

resources and small-scale hydropower in most low income countries. While the opportunities are large in low income countries, if business-as-usual practices prevail, much of this large potential will remain unused, as it is today. Tapping into renewable opportunities will increase diversity of supply and improve energy security.

5. The need to ramp up modern energy use in low income countries coupled with the availability of exceptional renewable energy resources provide a fertile opportunity to help countries develop a renewable energy base that will allow them to leap-frog into a new pattern of energy generation and use. Increased financing is vital to catalyze such a transformative use of renewable energy. Such resources are needed to overcome the challenges to achieving this potential, including:

- a) weak enabling environments: Few low income countries have in place an enabling environment necessary to promote renewable energy. It is necessary, therefore, to create an enabling environment by establishing the necessary policy, legal, regulatory and economic frameworks, reduce barriers to investment, improve access to knowledge, and strengthen institutional capacities. These steps help reduce risks and transactions costs, and thereby encourage renewable energy investment.
- b) lack of access to capital: there is a funding gap for renewable energy as commercial lenders perceive such investments as too risky. The capital costs of renewable energy investments further exacerbates the problem. When there are capital constraints, the tendency is to favor projects that may have lower upfront capital intensity;
- c) need to engage public and private sector. The private sector is a critical partner, and it can be most effective in scaling up renewable energy investments if an enabling environment exists. This underscores the important role of the public sector in setting the policy and regulatory framework for private sector interventions and contributing to investments in the early stages of a transformative program.
- d) lack of affordability: even with increased access to investment resources, many potential customers may have limited financial resources to make energy purchases at a scale needed to make renewable energy businesses financially viable. Long-term commercial viability is a prerequisite for sustainable and affordable energy services.

I. OBJECTIVES AND PURPOSE OF SREP

6. The aim of the SCF Program for Scaling-up Renewable Energy in Low Income Countries (SREP) is to pilot and demonstrate, as a response to the challenges of climate change, the economic, social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy.

7. As the foundation of economic growth, the private sector has a significant role to play in promoting renewable energy. In pursuing a strategy that will combine public sector and private sector actions, the SREP should seek to overcome economic and non-economic barriers in order to scale-up private sector investments contributing to the objectives of the SREP.
8. SREP should assist low income countries to initiate a process leading towards transformational change to low carbon energy pathways by exploiting their renewable energy potential in place of fossil-based energy supply and inefficient use of biomass.
9. Transformational change could occur through improved market and financial conditions and increased investor confidence. It leads to greater public and private sector investments in renewable energy necessary for large scale replication. This requires a better understanding of existing impediments and a focus on concrete actions to remove barriers. SREP should demonstrate that renewable energy provides a feasible pathway for economic growth and development.
10. SREP should provide experience and lessons in scaling up renewable energy, should promote sharing of lessons at the national, regional and international levels and should increase public awareness of the opportunities for renewable energy.
11. SREP should also lead to economic, social and environmental co-benefits. Using renewable energy in place of conventional fuels could simultaneously address local air pollution reductions while reducing greenhouse gas emissions, contributing to climate resilience, and enhancing energy security.
12. SREP financing should be blended with co-financing from multilateral development bank (MDB) lending programs and other available funds to invest in renewable energy technologies for electricity use and thermal energy generation in low income countries.

II. SREP DESIGN PRINCIPLES

13. Building on the aim and the objectives above, SREP should:
 - (a) be country-led and build on, and draw benefit from, national policies so that renewable energy is fully integrated into national energy plans. SREP should assist countries in developing or strengthening policies for renewable energy;
 - (b) take a programmatic and outcome-focused approach for investing in renewable energy as an alternative to conventional sources, such as fossil fuels and inefficient use of biomass. An SREP program should consist of both renewable energy investments (including infrastructure to supply and deliver renewable energy), and technical assistance, together with support for policy changes to greatly increase the use of renewable energy;
 - (c) give priority to renewable energy investments that create 'value added' in local economies. SREP should target proven renewable energy technologies that allow

for the generation and productive use of energy, as well as community services such as health, education and communication;

- (d) commit sufficient funding and leverage significant additional financing from MDBs, bilateral agencies/banks and from other public and private sources to achieve large scale renewable energy impacts;
- (e) work in a small number of low income countries selected on the basis of objective criteria, to maximize its impact and the demonstrative effect;
- (f) encourage private sector investments to significantly increase renewable energy capacity in a country's energy supply.
- (g) target the entire value chain, by utilizing the transformational potential of the private sector and civil society groups (including financial intermediaries) to achieve economic development and support long-term social and environmental sustainability;
- (h) seek wider economic, social and environmental co-benefits, such as reduced local pollution, increased energy security, enterprise creation, and increased social capital, particularly greater involvement and empowerment of women and other vulnerable groups;
- (i) be designed and implemented with the full and effective participation and involvement of, and with respect for the rights of, indigenous peoples and local communities, building on existing mechanisms for collaboration and consultation; and
- (j) proactively seek to build on synergies with other programs in the field of renewable energy, including those of the MDBs, GEF and other development partners.

III. COUNTRY ELIGIBILITY

14. A country eligible for participating in SREP programs should be:

- (a) a low income country eligible for MDB concessional financing (i.e., IDA² or a regional development bank's equivalent); and

²

SREP should be limited to IDA only countries and similar RDB equivalents.

- (b) engaged in an active MDB country program. For this purpose, an “active” program means where an MDB has a lending program and/or on-going policy dialogue with the country.

15. It is expected that a country receiving financing from SREP will not receive financing from the Clean Technology Fund.

IV. SELECTION OF SREP PROGRAMS

16. SREP should support country programs, and if appropriate, may consider regional programs³. It is proposed that a minimum funding level of US\$250 million for the SREP be achieved before the program is initiated, unless otherwise agreed by the SCF Trust Fund Committee,

17. The SREP Sub-Committee should determine the number of programs and the level of funding for each program, taking into account, among other things, the resources available for the SREP and the objective of providing scaled-up resources in the SREP countries. Final selection of country or regional programs will be made by the SREP Sub-Committee (see paragraphs 30-32 below.)

18. Selection of the country or regional programs should be made by the SREP Sub-Committee on the basis of recommendations provided by an Expert Group to be established by the Sub-Committee.

19. The Expert Group should provide advice on selection of the country or regional programs based on objective selection criteria, to be approved by the SREP Sub-Committee, including:

- (a) willingness to undertake a program for renewable energy development that could eventually move the country towards a low carbon development path in the energy sector. Conditions needed for such transformation should include: the existence of, or a willingness to adopt within an appropriate time frame, supportive regulatory structures and institutions (including agencies to promote/utilize renewable energy); an enabling business environment for renewable energy; sector-wide energy development strategies that are open to integrating renewable energy into energy access and supply enhancement programs; and good governance within the sector;
- (b) potential capacity for implementation, including a business friendly environment; and
- (c) regional balance as well as balance among diverse contexts for scaling up renewable energy, such as urbanization, industrialization, dispersed rural populations and stage of renewable energy development.

³

A regional or sub-regional program should be considered as one pilot under the SREP.

20. Taking into account the recommendations of the Expert Group and in accordance with the country eligibility set out above, the SREP Sub-Committee should approve a provisional list of potential countries or regions to be considered for financing under the SREP. The countries proposed on the provisional list should be invited to express their willingness to participate in the SREP. The SREP Sub-Committee should then approve the list of countries or regions, based on the expressions of willingness to participate received from the invited countries.

V. SCOPE OF SREP PROGRAMS

21. SREP should provide financing for renewable energy generation and use of energy using proven “new”⁴ renewable energy technologies. For purposes of SREP, new renewable energy technologies include solar, wind, bioenergy, and geothermal, as well as hydropower with capacities normally not to exceed 10 MW per facility

22. SREP should support complementary technical assistance as this is essential for transformative and enduring change and country engagement and ownership. This could include support for planning and pre-investment studies, policy development, legal and regulatory reform, business development and capacity building (including for knowledge management and monitoring and evaluation) as an integral and complementary part of renewable energy investment operations. SREP support should be available for funding the preparation of SREP programs and, recognizing the special needs of low income countries, the SREP Sub-Committee should consider the financing of a dedicated support program to help countries prepare for project implementation. Technical assistance should also be available during project implementation.

23. The following operational criteria should be used to prioritize and select activities to be funded by SREP:

- (a) Transformative impact. A country’s SREP funding plan (see paragraphs 26 and 27 below) should demonstrate how it will lead to transformative change in achieving national-scale outcomes and the delivery of SREP aims and objectives. Key criteria should be how the plan would remove barriers to renewable energy in the enabling environment, lead to replication of renewable energy investments, and increase the installed renewable energy capacity in a country’s energy supply.
- (b) Economic, social and environmental development impact. Project and program proposals for SREP financing should demonstrate the generation of economic, social and environmental benefits.
- (c) Economic and financial viability. Project and program proposals should demonstrate the economic viability of investments and the financial viability with the inclusion of time bound SREP resources.
- (d) Leveraging of additional resources. Preference should be given to

⁴ For this purpose, “new” renewable energy is as defined at the International Renewable Energies Conference held in Bonn, Germany, in June 2004.

financing public and private sector activities that maximize the leverage of SREP funds.

- (e) Implementation capacity. Programs may be executed through government and sub-sovereign agencies, financial intermediaries, private sector or civil society organizations. Preference should be given to proposals that build local and national implementation capacity and institutions. Proposals should address the viability of the proposed implementation model, including models to engage the private sector.
- (f) “Critical mass” for implementation: Programs should ensure that investments are of a sufficient size to sustain an organized system of qualified operations and maintenance.

VI. FINANCING MODALITIES

24. SREP should offer a mix of financing which should be blended with financing available from the MDBs and bilateral agencies/banks, and which would leverage other public and private sector resources.

25. SREP should fund the additional cost necessary to make renewable energy investments financially viable and to mitigate risks together with the cost of related technical assistance. In determining such additional costs, potential revenues from carbon markets should be taken into account. It could use a range of financial instruments. See Box 1 below for examples of potential financial instruments.

Box 1: Examples of Financial Instruments

SREP should utilize a range of financial instruments that are already available in MDBs. They may include, among others:

- a. Investment financing using equity and debt financing, capital cost buy-down, production incentives or other financial instruments to make renewable energy investments and related transmission and distribution investments financially viable.
- b. Credit enhancement or risk mitigation that leverages trade finance and short term working capital finance to renewable energy suppliers, provides partial risk coverage to investors that lack adequate credit history, limited collateral for securitizing the renewable energy loans or other risks.
- c. Grants and loans that can be on-lent through domestic financial institutions, including micro-finance institutions for renewable energy investments.
- d. Feed-in tariffs and other performance-based incentives. These incentives will be based on actual production of energy from renewable, time bound and transparently sourced and targeted so they lead to commercially viable renewable energy applications that would not be dependent on such incentive payments over the longer term.
- e. Grants for technical assistance, program and project preparation and implementation, and capacity building related to policies and legislation conducive to the renewable energy sector and knowledge management.

VII. PROGRAMMING PROCESSES

26. After the country and the Sub-Committee have confirmed a country's participation in the SREP program, the relevant MDBs should conduct a joint programming mission to consult the government on the design of a country program. During these consultations, the government and the MDBs should engage appropriate UN agencies and other development partners, private sector, local governments, national civil society, indigenous peoples and local communities, and other stakeholders on how the program may assist the government to enhance renewable energy investments. Appropriate UN agencies and other development agencies should be notified in advance of the mission to facilitate their participation. A primary goal of the joint mission(s) should be for the government and the MDBs to prepare jointly a succinct SREP funding plan.

27. The plan should include the following:
- (a) country context of the program (fit with national energy plans) and strategic goals,
 - (b) concept notes on the priority projects to be proposed for SREP funding, and information on status of project preparation,
 - (c) proposed sequencing of investments and associated technical assistance, including for enabling activities,
 - (d) financing required for each project, resources requested from the SREP, and other sources of technical assistance and pre-investment support.
28. The plan should be submitted to the SREP Sub-Committee for review and endorsement.
29. The further processing of activities identified in the programming plan should follow the MDBs policies and procedures for appraisal, MDB Board approval and supervision. A proposed program or project, developed pursuant to the programming plan, should be circulated by the Administrative Unit, prior to its appraisal by the relevant MDB, to the SREP Sub-Committee for approval of SREP financing.

VIII. GOVERNANCE

30. In accordance with the SCF Governance Framework, the SCF Trust Fund Committee should establish a SREP Sub-Committee consisting of:
- (a) up to six representatives from contributor countries to the SREP, identified through a consultation among such countries (or potential contributors in respect of the first year of the SREP operations), but at least one of which should be a Member of the SCF Trust Fund Committee;
 - (b) a matching number of representatives from eligible recipient countries to the SREP, elected on a regional basis and identified through consultations among such countries, at least one of which should be a Member of the SCF Trust Fund Committee. For the purpose of this paragraph, an eligible recipient country means any country which meets the eligibility criteria for funding under paragraph 14 above; provided, however, to the extent that any country is selected for the SREP at the time of the selection of the representatives, any such country on the list of SREP countries shall be given priority to represent eligible recipient countries under this paragraph. If there is no Member of the SCF Trust Fund Committee which is an eligible recipient country under paragraph 14 above, then at least one representative on the SREP Sub-Committee chosen pursuant to this paragraph should be selected from among the SCF Trust Fund Committee Members identified in accordance with paragraph 14(b) of the Governance Framework for the Strategic Climate Fund;

- (c) any other representatives designated by the SCF Trust Fund Committee.

31. In addition to other observers identified in the *Rules of Procedure for the SCF Trust Fund Committee*⁵, which will apply *mutatis mutandis* to the SREP Sub-Committee meetings, a representative of the Energy for the Poor Initiative (EFPI) should be invited as an observer to the SREP Subcommittee in order to ensure optimization of resources and coordination with the EFPI.

32. The functions of the SREP Sub-Committee should include:

- (a) appointing the expert group and approving criteria and guidance to be followed by the group;
- (b) selecting country and regional programs;
- (c) approving financing modalities for the SREP;
- (d) endorsing further development of activities in country plans for trust fund financing;
- (e) approving SREP financing for programs and projects;
- (f) approving a results measurement framework for SREP and periodically reviewing the effectiveness and impact of SREP programs and activities and ensuring that lessons learned are applied to future SREP investments and transmitted through the SCF Trust Fund Committee to the UNFCCC, the Partnership Forum and interested stakeholders;
- (g) approving periodic reports to the SCF Trust Fund Committee on the operations of SREP;
- (h) ensuring complementarity between activities foreseen for SREP and activities of other development partners active in the field of climate change, including the GEF, UNDP and UNEP, and ensuring effective cooperation between the SCF Program and GEF, UNDP and UNEP country activities to maximize synergies and avoid overlap; and
- (i) exercising such other functions as they may deem appropriate to fulfill the purposes of SREP.

RESULTS MEASUREMENT FRAMEWORK

33. The results measurement framework for SREP should be a central part of the program design and implementation by defining how transformational impacts will be measured before,

⁵ See *Guidelines for Inviting Representatives of Civil Society to Observe Meetings of the CIF Trust Fund Committees*, April 20, 2009

during and after the life of the program. The aim should be to help drive successful outcomes, while ensuring that the lessons learned are disseminated to processes and organizations outside the Climate Investment Funds.

34. The SREP Sub-Committee should approve a results framework aimed at measuring the impact of SREP. The CIF Administrative Unit, in consultation with the MDB Committee, should further develop a results framework for review and approval by the Sub-Committee.

35. As stipulated in the Governance Framework for the SCF⁶, each MDB should be responsible, in accordance with its procedures, for monitoring and evaluating the outcomes agreed in the results framework. There should be annual reporting on the SREP by the MDBs, through the CIF Administrative Unit, to the SREP Sub-Committee, and an independent evaluation of the operations of the Trust Fund, including the targeted programs and the impacts of program activities under the targeted programs, should be carried out jointly after three years of operations by the independent evaluation departments of the MDBs.

36. The SREP Sub-Committee should ensure, through the SCF Trust Fund Committee, that lessons learned and results are regularly shared through the CIF Partnership Forum and relevant fora, so as to promote a dialogue with a broad-based group of stakeholders on the strategic directions, results and impacts of the program.

IX. SUNSET CLAUSE

37. The sunset clause of the SCF Trust Fund will apply to the SREP.

⁶ See *Governance Framework for the Strategic Climate Fund*, paragraph 55, November 2008.