



# Regional Technical Assistance Report

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Project Number: 41574  
December 2007

## Implementation of the Seed Capital Assistance Facility

(Financed by the Global Environment Facility)

In accordance with ADB's public communications policy (PCP, 2005), this abbreviated version of the TA excludes confidential information and ADB's assessment of project or transaction risk as well as other information referred to in paragraph 126 of the PCP.

Asian Development Bank



## ABBREVIATIONS

ADB	–	Asian Development Bank
DMC	–	developing member country
EE	–	energy efficiency
GEF	–	Global Environment Facility
GHG	–	greenhouse gas
PMU	–	project management unit
PRC	–	People's Republic of China
PSCM	–	Capital Markets and Financial Sectors Division
PSOD	–	Private Sector Operations Department
RE	–	renewable energy
REACH	–	Renewable Energy, Energy Efficiency and Climate Change
RETA	–	regional technical assistance
RSDD	–	Regional and Sustainable Development Department
SCAF	–	Seed Capital Assistance Facility
SSTA	–	small-scale technical assistance
SME	–	small and medium-sized enterprise
TA	–	technical assistance
UNEP	–	United Nations Environment Programme

## TECHNICAL ASSISTANCE CLASSIFICATION

<b>Targeting Classification</b>	–	General Intervention
<b>Sector</b>	–	Energy
<b>Subsector</b>	–	Energy sector development
<b>Themes</b>	–	Environmental sustainability, private sector development, sustainable economic growth
<b>Subthemes</b>	–	Cleaner production, control of industrial pollution; private sector investment; fostering physical infrastructure development

## GLOSSARY

Incremental returns hurdle	–	The gap between actual risk-adjusted returns and expected target returns of mainstream investors.
Management fee	–	A charge paid to asset managers of mutual funds or private equity funds for their services; usually also includes fund administration costs and investor relations. Typically a certain percentage of assets under management.
Seed capital	–	Money used for the initial investment in a project or start-up company, for proof-of-concept, market research, or initial product development. Also called seed financing or seed money.
Seed capital window	–	Explicit allocation of capital within the larger fund for the purpose of investing in start-ups or the early stages of project or company development.

## NOTE

In this report, "\$" refers to US dollars.

<b>Vice President</b>	L. Jin, Operations 1
<b>Director General</b>	R. Bestani, Private Sector Operations Department (PSOD)
<b>Director</b>	W. Willms, Capital Markets and Financial Sectors Division, PSOD
<b>Team leader</b>	S. Kim, Investment Specialist, PSOD
<b>Team members</b>	A. Hebel, Office of Cofinancing Operations
	D. McCauley, Regional and Sustainable Development Department
	K. Mulqueeney, Counsel, Office of General Counsel

## I. INTRODUCTION

1. Emerging Asian economies are dealing with growing energy demands and high oil prices. Increased energy demands threaten sustainable long-term economic growth and also contribute to serious environmental impacts such as global climate change. By 2010, Asia is expected to account for almost one third of global greenhouse gas (GHG) emissions. To slow the rapid growth in GHG emissions, increases in investment in renewable energy (RE), energy efficiency (EE) and other “clean” technologies is needed.

2. However, RE and EE projects face difficulties securing financing<sup>1</sup> because RE and EE technologies are markedly different from conventional energy systems in terms of scale, capacity, energy resource characteristics and status of technology. Since financiers are typically averse to things that are new; banks apply different risk perceptions and dismiss such technologies as “too small and too risky.” Many investors are therefore not ready or willing to provide equity finance, which is a seed capital for entrepreneurs, to such projects. To help early-stage RE and EE enterprises access seed capital from conventional energy investors, the United Nations Environment Programme (UNEP) and the Asian Development Bank (ADB) are developing the Seed Capital Assistance Facility (SCAF), in line with UNEP’s Renewable Energy Enterprise Development program. The SCAF will be funded by the Global Environment Facility (GEF)<sup>2</sup> under its Climate Change Operational Programme 6, “Promoting the adoption of renewable energy by removing barriers and reducing implementation costs.”

3. This regional technical assistance (RETA) is being formulated to implement the SCAF. It is designed to stimulate the creation of specialized funds and early-stage funding windows to target sustainable energy niches such as RE and EE where investment capital interest exists. SCAF project activities under the RETA will aim to facilitate investment in local RE and EE enterprises, helping sustainable energy entrepreneurs to access enterprise development support and seed capital from mainstream investors.<sup>3</sup> The SCAF project will be implemented in joint partnership based on an agreement between ADB and UNEP.<sup>4</sup>

## II. ISSUES

4. Asia is expected to account for 28% of global GHG emissions by 2010. One way of slowing this rapid growth in GHG emissions is to increase investment in RE and other “clean” technologies. Many Asian governments have recently announced ambitious targets on renewable energy. For example, the People’s Republic of China (PRC) has pledged to increase its use of small hydro, wind, solar and biomass power generation to 60,000 megawatts, providing 10% of its generating capacity by 2010. The Philippines wants to double the generating capacity from RE sources by 2013, and Pakistan has announced its goal of a 10% renewable energy share in the total power sector. However, to date, the implementation of RE, EE and other GHG mitigation projects across Asia has been slow compared with overall energy sector growth. For instance, only 2% of total electricity in Asia comes from renewables. For countries across Asia to meet their renewable energy targets and reduce GHG emissions, a

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<sup>1</sup> Large hydropower plants and electricity transmission line upgrade and rehabilitation projects are ruled out.

<sup>2</sup> GEF, established in 1991, helps developing countries to fund projects and programs that protect the global environment. GEF grants support projects related to biodiversity, climate change, international waters, land degradation, the ozone layer and persistent organic pollutants.

<sup>3</sup> The conceptual structure of SCAF is in Appendix 1.

<sup>4</sup> ADB and UNEP have been discussing the SCAF project since 2006. ADB and UNEP held SCAF meetings on 25–26 June 2007 to finalize the project structure.

much greater level of investment in these types of projects, in the order of billions of dollars, is required.<sup>5</sup>

5. However, from a commercial perspective, the supply of energy services via RE or efficient energy technologies is often considered new and dismissed by conventional financial institutions as too small and too risky. Therefore, few private sector clean energy enterprises or project developers are financed by conventional banks and investors. The lack of early-stage investment leads to “capital starvation” of promising energy start-ups and developments. Besides insufficient supportive regulations to encourage seed capital investment in the clean energy sector, the two largest hurdles to engaging commercial investors in seed capital stage investment are the higher transaction and management costs of smaller and less developed clean energy transactions, and the lower risk-adjusted returns of these investments.

**A. Barrier 1 to the Provision of Seed Capital: Enterprise Development and Transaction Costs are High**

6. Mainstream investors expect to pay an annual fee of 2–3% to asset management firms to manage capital on their behalf, usually through closed-end investment funds. Even if a fund manager is interested in making a seed capital investment, covering the costs can be challenging. When a fund manager commits to seed capital financing of an early stage RE enterprise, the standard management fee of 2–3% based on the fund size is substantially below the actual cost of sourcing, transacting and providing enterprise development services to the investment. However, linking seed capital investments with follow-on financing is a realistic way to address fully this barrier in the long term. For instance, by investing seed capital in a portfolio of small investments, one can create a pipeline for subsequent growth capital investment. But, until investors can see that such integrated investment strategies will work, they tend to sit on the sidelines and wait for the future pipeline of early stage enterprises to mature on their own. This is a slow and inefficient process from the global development perspective.

**B. Barrier 2 to the Provision of Seed Capital: Returns for Investors are Low**

7. Similarly, if seed capital investments are looked at in isolation, the risk-adjusted returns demanded by investors are often not achievable by early-stage small and medium-sized enterprises (SMEs) in the clean energy sector. Each individual transaction is too risky and too small to merit the attention and financial support of commercial investors.

8. To address these barriers to early-stage finance of young clean energy enterprises, the SCAF will offer investors and fund managers two cost-sharing support lines that are outlined below as methodology and key activities, attracting investment capital into the seed finance area. It is essentially bringing the mainstream investment community up to an earlier stage of investment activity.

9. From ADB’s standpoint, one way to develop the pipeline of clean energy projects would be to catalyze more investment funds in the sector by leveraging off ADB’s RE, EE, and Climate Change (REACH) capacity-building initiative. To play an active role in developing clean energy projects in its developing member countries (DMCs), ADB conducted a small-scale technical

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<sup>5</sup> International Energy Agency. 2003. *World Energy Investment Outlook*. OECD. The International Energy Agency estimates that PRC alone will need to invest \$2.2 trillion over the next 25 years in its energy sector.

assistance (SSTA) for establishing RE, EE, and GHG mitigation funds (RETA 6384).<sup>6</sup> As a result of the SSTA, ADB issued a call for proposals on 13 July 2007<sup>7</sup> for prospective fund managers investing in the clean energy sector in the region. ADB plans to invest \$100 million in up to five specialized funds, enabling ADB to develop several clean energy projects in DMCs. The implementation of the proposed SCAF project is thus intertwined and well aligned with the call for proposals and ADB's \$1 billion commitment in the clean energy sector.

### III. THE PROPOSED TECHNICAL ASSISTANCE

#### A. Impact and Outcome

10. The impact of the RETA is to reduce energy-related CO<sub>2</sub> in ADB's DMCs by promoting RE and EE projects. The SCAF will provide technical assistance (TA) to private equity fund managers and local entrepreneurs in order to (i) develop sustainable clean energy funds and early-stage funding windows, (ii) share incremental enterprise development and transaction costs, and (iii) encourage taking on higher risk portfolios through a seed capital return enhancement offered on a project by project basis. The increasing number of indigenous clean energy enterprises financed will deliver a range of projects, products and services to mitigate GHG emissions.

11. The expected RETA's outcome will be increased access to financing for early-stage sustainable energy enterprises and projects in the region. Increased experience among financiers investing in small-scale RE and EE projects will enable mainstream energy investors to scale up financing to clean energy enterprises and projects. This increased investment activity would mature and expand these sectors and in so doing help DMCs improve their demand-side energy use and start to meet their renewable energy targets.

#### B. Cost and Financing

12. The total cost of the RETA is estimated at \$4.2 million, which will be financed on a grant basis by the GEF.<sup>8</sup> Cofinancing is expected, as the SCAF will facilitate capital contribution from entrepreneurs and fund managers.<sup>9</sup> Assuming that some of the new funds to be supported by the SCAF may be funds in which ADB would invest,<sup>10</sup> ADB and UNEP anticipate fund managers may be interested in significant cofinancing as a result of ADB's support through the SCAF.

<sup>6</sup> ADB's Private Sector Operations Department has been working with several clean energy sector experts within and outside ADB to raise private equity funds in the RE and EE industries. However, limited resources with respect to development capital and a lack of experience and track record in the private equity space have been significant barriers. This SSTA is expected to have significant demonstration effect in that new funds will be launched through the call for proposals process that can be replicated and scaled up in other parts of the region. The impact of the SSTA is to increase the number of equity investments in RE and EE projects through the establishment of several investment funds focused on the clean energy sector.

<sup>7</sup> Available: <http://adb.org/Clean-Energy-CFP/>

<sup>8</sup> On top of the \$4.2 million project budget, the GEF will provide a project administration fee to ADB (\$210,000). The GEF financing will be administered by ADB.

<sup>9</sup> The seed capital will have a multiplier effect whereby projects that move into the second stage of investments will receive significantly more capital from the cooperating funds, entrepreneurs and others such as financial institutions.

<sup>10</sup> For instance, the China Clean Energy Capital Fund, which submitted a proposal to ADB in 2007, is not a fund in which ADB has invested, but there is a possibility that ADB would invest in the fund (as an investor and to provide support through the SCAF from 2008).

### **C. Implementation Arrangements**

13. The technical assistance will be executed by ADB, with administration expected to be conducted through ADB's Private Sector Operations Department (PSOD), in close coordination with GEF staff in ADB's Regional and Sustainable Development Department (RSDD). The technical assistance activities will be implemented with the assistance of international and national consultants and firms.<sup>11</sup> The consultants will be engaged by ADB in accordance with the *Guidelines on the Use of Consultants* (2007, as amended from time to time).

14. The SCAF operating structure will include a management committee and a PMU, comprising representatives from ADB and UNEP. The PMU will include an ADB investment specialist,<sup>12</sup> a UNEP project manager, and additional consultant support. The PMU will screen proposals coming from prospective funds and identify the actions to be taken such as defining a specific enterprise development strategy (e.g., training and coaching programs) and implementation arrangements. The management committee will comprise the ADB investment specialist, the UNEP project manager, and a UNEP staff member who is in charge of GEF projects.<sup>13</sup> The management committee will review and approve the final proposals recommended by the PMU. The RETA will be operational until the end of 2012.

15. As participating countries have as yet not been selected, no activity, in a DMC will get started without a no objection from the concerned government of the participating DMC.

### **IV. THE PRESIDENT'S RECOMMENDATION**

16. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of \$4,200,000 to be financed on a grant basis by the Global Environment Facility for the Implementation of the Seed Capital Assistance Facility.

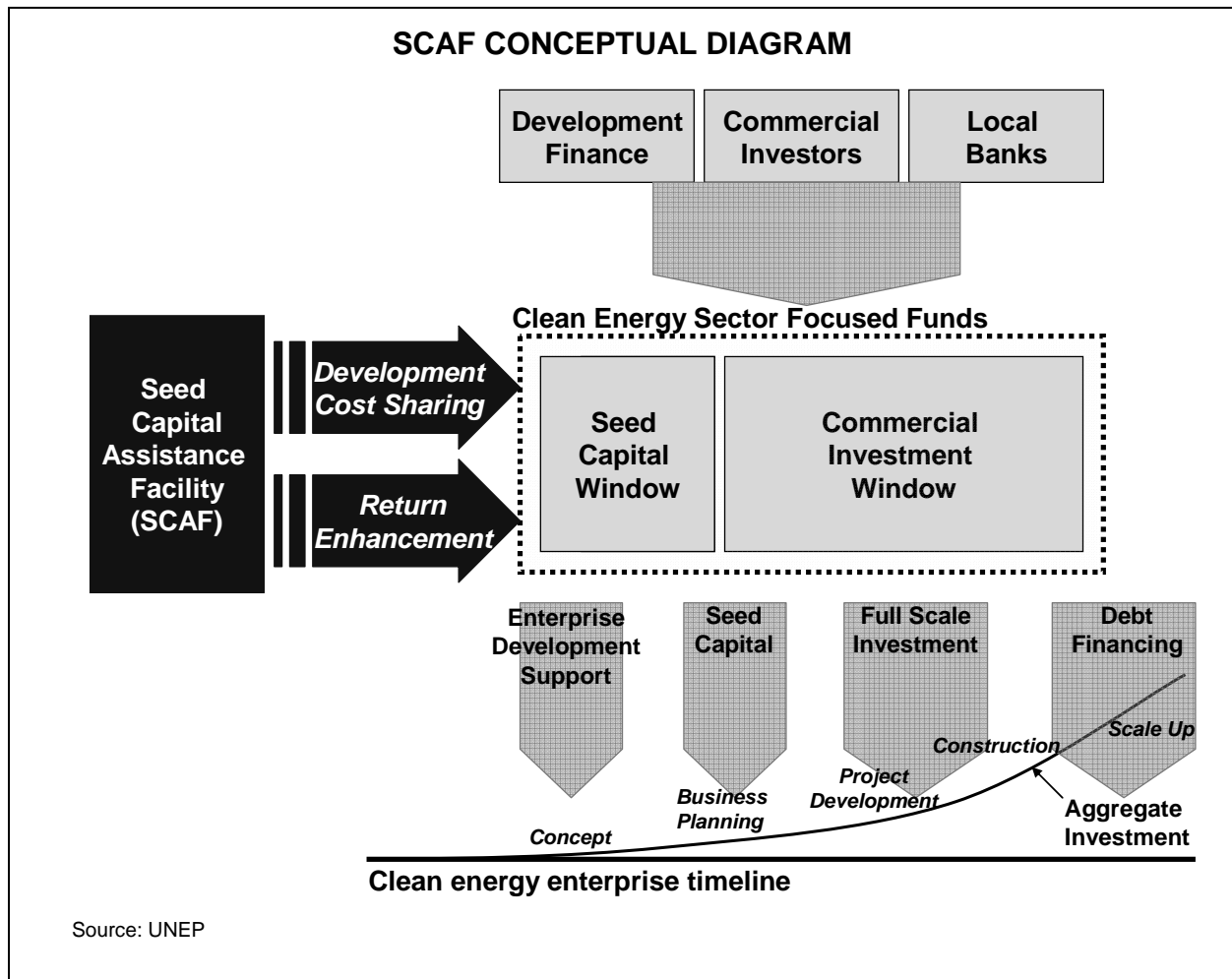
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<sup>11</sup> International consultants will be engaged for 30 person-months on a project basis and national consultants will be hired for 66 person-months on a full-time basis.

<sup>12</sup> The technical assistance project leader will be a member of the PMU and the management committee.

<sup>13</sup> Note that the ADB investment specialist leads the Project and the UNEP project manager supports ADB.





SCAF: Seed Capital Assistance Facility  
 Source: United Nations Environment Programme