

**PCF IMPLEMENTATION NOTE Number 1***Version of June 13, 2000****PCF Project Portfolio Development Strategy***

Formal PCF project and portfolio development criteria are provided in the Information Memorandum and Instrument establishing the PCF. These provide helpful guidance but warrant more definition through discussion with Participants and others to help focus the efforts the PCF Fund Management Unit's screening of investment opportunities at the concept stage. In broad terms it is already agreed that PCF will develop a project portfolio with the intention of achieving a broad balance in the number of projects undertaken in economies in transition and in developing countries. While the PCF intends to place an emphasis on development of projects in the area of renewable energy technology, energy efficiency projects will also be supported. A small number of land use change and forestry projects where permitted under the Protocol will also be identified.

The PCF intends to place funds in 15-20 projects, and identify, prepare, and approve these in the first three years of its operation. Experience shows that most of the projects in which the PCF will eventually invest must be identified within the first 12 months of Fund implementation in order to reach negotiations before the end of June 2003.

The initial set of projects is being identified and prepared by the World Bank. IFC, the private sector arm of the World Bank Group, has started due-diligence on projects proposed by the private sector. A number of third party projects, including those proposed by the Participants in the PCF, are anticipated in the PCF's portfolio and some ideas are already being presented from this source.

**Cost and Price of PCF Emission Reduction**

In cost and price terms, the PCF intends to identify projects where the cost of generating emissions reduction is of the order of \$1-3/t/CO<sub>2</sub>. In such cases, the PCF expects to negotiate a risk-adjusted price of \$2-5/t/CO<sub>2</sub>.

The PCF will attempt to negotiate a financing where the price for offsets is paid on delivery of the offset after the periodic verification of the offsets achieved. In cases where the project requires initial capital financing, the PCF will attempt to

limit the initial financing to the cost of generating the emissions reduction. Since the PCF assumes greater risk in such projects, the negotiated price for such emissions reduction should be lower.

The cost of emissions reduction will also depend on the time slice of the emissions reductions purchased. Typical emissions reduction project life exceeds 20 years. If emissions reductions are to be purchased only to the end of the first commitment period (2012), the cost of the emissions reduction would be proportionally higher. If the emissions reduction or the carbon purchase agreement with the proponent goes beyond the life of the PCF (2012), arrangements have to be made for distribution of these assets of the PCF. In cases where the carbon purchase agreement with the PCF terminates in 2012, the agreed price for offsets must reflect the transfer of emissions reductions to the proponent after 2012.

### **Regional Distribution of PCF Projects**

It is expected that the PCF will have two to four projects in Africa, three to five projects in Asia, two to three projects in the Latin American region and seven to ten projects in Economies in Transition. The current pipeline of the PCF consists of endorsed projects in Latvia (Liepaja Region Solid Waste Management Project) and Costa Rica (Fund for Renewable Energy Resources). Project identification work is in progress in Czech Republic, Guatemala, India, Poland, Slovak Republic, and Uganda.

### **Regional distribution of project pipeline development**

<i>Region</i>	<i>FY00</i>	<i>FY01</i>	<i>FY02</i>	<i>FY03</i>	<i>Total</i>
Europe and Central Asia	1	2-3	1-2	1-2	7
Latin America	1	1-2	1-2		3-4
Africa		1-2	1-2		2-4
East Asia			1-2	1-2	2-3
South Asia			1-2	1-2	2-3
<b>Total</b>	<b>2</b>	<b>4-7</b>	<b>5-10</b>	<b>3-6</b>	<b>15-20</b>

FY: Fiscal year, July 1 to June 30.

The initial emphasis will be in projects in Eastern Europe, Latin America and Africa. There is currently greater explicit political willingness to move ahead with the implementation of JI/CDM in these regions. The enthusiasm of the Central American countries and those of the Economies in Transition has resulted in the initial focus of project development activities in these regions. Greater effort is being made to identify projects in Africa. The PCF will make efforts to identify projects in

Asia but these efforts will recognize the relative reluctance of major countries in the region to move quickly with the project-based flexibility mechanisms.

The regional and geographic preferences of the country, provincial and/or project sponsor will be based on an expectation from Bank Group experience of areas that offer relatively lower risk. The PCF will make all efforts to identify reliable project developers with good prospects of completing projects on time and maintaining them over time to protect the Fund's key asset of ERs. If the Fund is to work in historically risky environments but where offset options are otherwise attractive, we will explore and utilize public and private risk mitigation instruments, such as the Partial Risk Guarantee Facility of the Bank, MIGA instruments, Government-supported risk hedging, and private risk assurance instruments.

### **Technology Mix in the PCF Portfolio**

The PCF intends to place an emphasis on development of renewable energy projects. These will include but will not be restricted to wind, small hydro, solar direct, solar PV, landfill gas, refuse derived fuel, geothermal power and heat, biomass fuels including crop-residue fuels such as bagasse, rice hulls, coffee husks, and woodfuels. The PCF intends to achieve a 3:2 ratio between renewable energy and energy efficiency projects in its portfolio. The regional distribution proposed is reflected below.

<i>Region</i>	<i>Final project profile</i>			<i>Ongoing***</i>	
	RET*	EE**	Total	RET	EE
Europe and Central Asia	4-6	3-4	7	1	
Latin America	2-3	1-2	3-4	1	
Africa	2-3	1-2	2-4	1	
East Asia	1-2	1-2	2-3		
South Asia	1-2	1-2	2-3		1
<b>Total</b>	<b>9-12</b>	<b>6-8</b>	<b>15-20</b>	<b>3</b>	<b>1</b>

\*RET: renewable energy technologies, including fuel switching from fossil fuels to renewables

\*\*EE: energy efficiency and demand side management

\*\*\*Ongoing: implies the availability of PIN or more detailed documentation

Suitable energy efficiency projects will include demand side management, such as manufacturing process, building and appliance efficiency measures, and supply-side efficiency such as transmission, distribution efficiency measures, and gas flaring reduction.

PCF's project selection criteria allow for up to 10% of Fund resources to be invested in land use change and forestry projects where permitted under the Protocol. Currently, the only PCF-eligible countries for such investments are Eastern European economies. The Parties to the UNFCCC are expected to decide on the eligibility of such projects under the CDM in COP-6 in November, 2000. However, even for JI projects, it seems prudent to await more clarification from the UNFCCC Parties on the definition of "aforestation" and "reforestation" before devoting any PCF resources to carbon forestry projects in economies-in-transition.

If considered appropriate, the PCF can develop and implement a high leverage demonstration fuel switching project between fossil fuels (i.e. coal to gas) in the second or third year of operation.

#### **Current portfolio development status**

In the period between April and June, 2000 the following will be achieved.

- All approval process for the Latvia: Liepaja Region Solid Waste Management Project will be completed. Negotiations on the project, including the carbon purchase agreement, are expected in the second half of April. The project is to be presented to the Board of the World Bank on June 1, 2001.
- Subject to Participants Committee approval, the appraisal of the Costa Rica: Fund for Renewable Energy Resources (FRER) will be completed. The appraisal of the underlying World Bank Eco-Markets project is expected in April. The work on the design of the FRER is in progress and is to be completed in this period.
- A number of Project Idea Notes will be reviewed and completed in this period. These could include:
  - Uganda: Rural Electrification
  - India: Upgrading Efficiency of Distribution Company
  - ESCO-intermediated Energy Efficiency in Poland and other Eastern European Countries
  - Czech Republic: Conversion from coal to geothermal district heating.

## Nature and origins of PCF deal flows

### *Intermediation – Helping establish and Investing through established Funds and Financial Intermediaries for deal flow aggregation*

- ☐ The PCF considers that there are benefits of intermediated investments versus direct investment. While these benefits are discussed in more detail in a separate note, the PCF anticipates no more than about 15% of the total deal flow coming through national and regional emission reduction market aggregators as established local and regional funds and financial intermediaries. Such intermediation is being appraised in Costa Rica and evaluated in Central America, and for energy efficiency investments in Eastern Europe, and possibly for a gas-flaring reduction in Africa. Based on the advice of Participants, the PCF intends to implement the use of established intermediaries in a phased manner. Experience gained in early projects involving established intermediaries will guide the subsequent development of such projects.

The projects that PCF may support in Costa Rica and Central America through financial intermediation anticipate PCF co-financing of renewable energy projects that would not occur without PCF's additional funding. The intermediaries concerned would follow all procedures related to project approval (including individual clearance of the PCF's Participant Committee) of the PCF, Baseline and Monitoring and Verification Protocol Validation, Verification and Certification. It is expected that co-financing with such intermediaries would allow the participation of a greater number of smaller countries in PCF, and in the emerging market generally in the longer term. It might also lower costs for project development and implementation for small but potentially cost-effective emission reduction projects. Debt and equity financing would often come from local private sector sources.

### *Source of Deals: Bank Group versus Private and Third Party*

The PCF has a preference for the initial projects to come from the Bank Group's own pipeline. This will permit an appropriate due diligence and provide a level of comfort from the initial projects. The PCF anticipates that about half to two-thirds of the total projects will come from the World Bank Group's own pipeline. It would be desirable that about a third of the projects in the PCF portfolio come from third party deal suppliers, including direct private sector sponsors, independent privately managed financial intermediaries, and multilateral development banks/ international financial institution derived deals. The PCF still needs to examine the implication of such deals, including, how due diligence on such projects would be exercised and of the nature and extent of responsibilities that will be assigned to the third party deal suppliers.

