2.0 portfolio development

The PCF intends to purchase emission reductions from 25–30 projects, and identify, prepare and approve these transactions in the first three years of its operation. Various stakeholders including PCF participants, host country governments and non-governmental organizations (NGOs), were consulted on the design of the PCF's project selection *(see Web version of this report)* and portfolio development criteria *(see Web version)*, which are described in the *Instrument Establishing the Prototype Carbon Fund*. Further guidance has been provided through discussion with PCF participants and others to help focus the efforts of the PCF Fund Management Unit's (FMU's) screening of projects.

The PCF will develop a project portfolio with the intention of achieving a balance in the number of projects undertaken in economies in transition and in developing countries, and in doing so will aim for regional balance. While the PCF intends to emphasize the development of projects in the area of renewable energy technology, energy efficiency projects will also be supported. Where permitted under the Protocol, a small number of forestry, land use and land-use-change (LULUCF) will also be identified[1].

THE PCF PROJECT CYCLE

The PCF project cycle *(see Figure 2.1)* was designed to adapt to the emerging guidelines of the legal framework of the UNFCCC and/or the Kyoto Protocol *(see Web version)*. Chapter 4 discusses these steps and their costs in more detail, and the Web version summarizes the costs *(see Web version)* for each stage in the project preparation.

PCF PORTFOLIO DEVELOPMENT

Experience shows that most of the projects for which the PCF will eventually provide funds must be identified within the first 12 months of Fund implementation in order to reach negotiations before the end of June 2003.

[1] This will have to consider the agreement of the UNFCCC Parties at CoP 6 bis to allow afforestation and deforestation projects under the CDM.

As of the end of September 2001, the PCF had received 130 Project Idea Notes (PINs). Project Concept Notes (PCNs) were prepared for 25 of these projects *(see Figure 2.2)*. The PCF Fund Management Committee (FMC) and the Participants Committee has reviewed and cleared 15 of these PCNs. It should be noted that these numbers include the 7 PCNs for subprojects under the Costa Rica umbrella project. The Project Design Document (which includes the detailed baseline study and the monitoring and verification plan) and the Emission Reduction Purchase Agreement (ERPA) has been negotiated (or is expected to be so shortly) for projects in Latvia, Uganda, Chile, and Brazil. As the list of projects approved by the FMC and the Participants Committee indicates *(see Table 2.1 and map)*, it is expected that a number of other cleared projects will go through the preparation stages quite rapidly.

REGIONAL DISTRIBUTION OF PCF PROJECTS

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 *(Figure 2.3)*. Greater effort is being made to identify projects in Africa and Asia, where an endorsement was received for the first project in India.

TECHNOLOGY MIX IN THE PCF PORTFOLIO

The PCF places a major emphasis on the development of renewable energy projects. These will include wind, small hydro, solar direct, solar photovoltaic (PV), landfill gas, refuse-derived fuel, geothermal power and heat, and biomass fuels, including crop-residue fuels such as bagasse, rice husks, coffee husks, and wood fuels. While the PCF intends to achieve a 3:2 ratio between renewable energy and energy efficiency projects in its portfolio, renewable energy projects dominated those going forward in fiscal year 2002 *(see Figure 2.4)*. Greater effort is being devoted to locating suitable energy efficiency projects, including demand-side management, such as manufacturing processes, building and appliance efficiency measures, and supply-side efficiency such as transmission, distribution efficiency measures, and gas flaring reduction.

EXPANDING THE SCOPE OF EMISSION REDUCTION PROJECTS

It is expected that the project-based carbon market will be dominated by single-project transactions generating millions of tons of emission reductions per year, such as coal-to-gas conversions and clean coal technology in power supply, and gas supply efficiency improvements. In such projects, CDM transaction costs are small in proportion to overall investment. But very few countries can sustain these large scale projects.

In contrast, all countries have small-scale renewable energy and energy efficiency opportunities that can enhance their rural economies and provide clean technology in manufacturing and infrastructure. Therefore, the PCF will seek means to bring smaller projects into its

portfolio. Smaller projects, however, are difficult to process cost-effectively, even with provisions for streamlining CDM procedures for small projects. Delivering carbon finance efficiently to tiny projects of hundreds of watts to a few kilowatts of installed power, or to mass distribution of single energy efficient appliances, such as air conditioners or solar water heaters, is even more challenging. Encouraging such projects will enable the benefits of the CDM to reach smaller countries, rural areas and the poor.

Figure 2.2. Development of Project Ideas Submitted to PCF
(as of September 30, 2001)

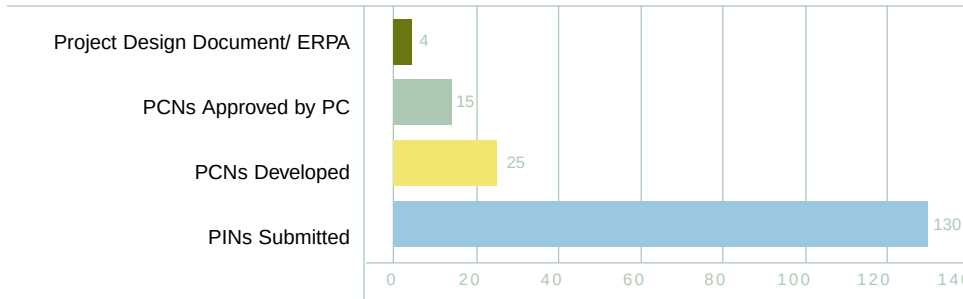

Table 2.1. Projects Cleared by the Participants Committee
(see Web version for full description and project status)

Country/project	PCF ER purchase	Total project cost
	(in million US$)	
Latvia: capture of landfill gas and power generation	2.477	16.97
Uganda: small hydro power displacing diesel oil in the rural West Nile Region	3.9	21
Chile: 26 MW run-of-river hydro power facility set up in cascade with other hydro projects in Chacabuquito	3.5	37
Brazil: replacement of coke in pig iron production by charcoal	5	TBD
Morocco: construction of wind farm displacing gas-fired power generation	7–10	TBD
Costa Rica: umbrella project for renewable energy	7.5–10	TBD
India: energy from municipal solid waste	8	48
Central America (other than Costa Rica): renewable energy	10	TBD

PCF anticipates purchasing over $50M of ERs from projects already approved by the Participants Committee

Early in its development, PCF committed $10-15 million to demonstrate land use change and forestry activities to generate emission reductions that were eligible under JI. With agreement in CoP6 to include afforestation and reforestation under CDM, PCF resources can be applied to exploring good practice here as well.

LOOKING AHEAD

In addition to aggressively developing projects and concluding emissions purchase agreements, the following developments are expected in fiscal 2002.

Going East. With healthy project pipelines in Latin America, Eastern Europe, Central Asia and Africa, the PCF will undertake more extensive outreach and consultation with countries in East Asia. Discussions have been initiated with China, the Philippines, Thailand, and Vietnam and the PCF expects to fully utilize the $15 million set aside by the PCF Participants for this region.

Bundling small projects and intermediation. PCF is exploring cost-reduction measures to allow ERs from small deals to compete with high-volume, low-cost projects in cooperation with A2R/EIC in Brazil, OCIC in Costa Rica, and Fondelec-Dexia in Eastern Europe. These measures include (a) using one generic "umbrella" agreement with a host country covering all transactions for an extended period and simple letters of approval for each small sub-project; (b) establishing multi-project or sectoral baselines, which allow a simple test of additionality for each small project; and (c) applying bulk validation, verification, and certification procedures, which use statistical sampling techniques.

Contractual arrangements for these are in preparation. Over the next year, these partnerships should demonstrate the effectiveness of these measures and offer insights for further streamlining.

Pico projects. PCF has earmarked a small but relatively important part of its resources to purchase carbon from tiny projects to learn how carbon finance can help. The first of these projects is being implemented in Guatemala in partnership with Fundacion Solar, which is seeking to establish micro hydropower to isolated villages that are not connected to the grid. As part of the project, Fundacion Solar will promote local management to guarantee the economic sustainability and long term viability of the project. The PCFplus program intends to meet most of the transaction costs as the PCF explores all options to channel carbon finance to these micro hydropower transactions.

Land-use change and forestry projects. Already, PCF is working with the Romanian government on a project to restore degraded forest ecosystems for conservation and plant degraded agricultural lands with commercial forests. PCF's Brazilian Sustainable Fuel

Wood and Charcoal Project has also been modified to include restoration forestry for the "Cerrado" ecosystem and to explore integrated conservation and production forestry on a landscape scale supported by carbon finance.

These projects will enable PCF to explore approaches to addressing "permanence" in forest-based ERs, the synergy between biodiversity conservation and LULUCF activities, and good practice in social assessment.

Figure 2.3. Geographic Distribution of Projects by End of FY02

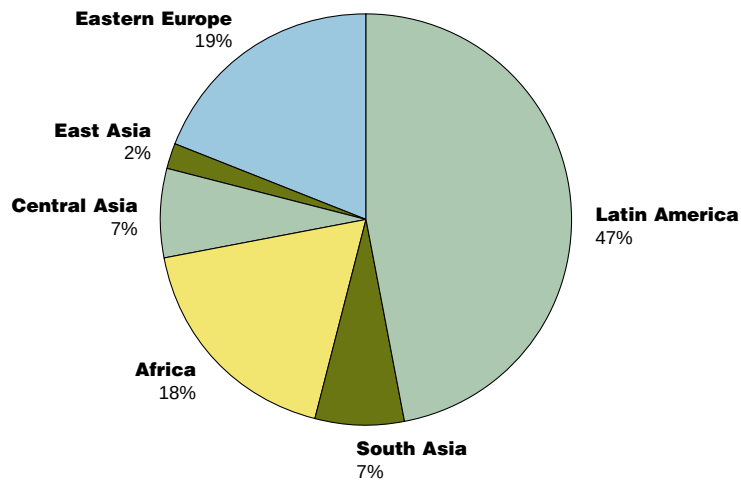

Figure 2.4. Technology Distribution for FY02 Pipeline