Naciones Unidas FCCC/SBI/2013/5

Convención Marco sobre el Cambio Climático

Distr. general
26 de abril de 2013
Español
Original: inglés

Órgano Subsidiario de Ejecución
38º período de sesiones
Bonn, 3 a 14 de junio de 2013
Tema 12 del programa provisional
Desarrollo y transferencia de tecnologías y aplicación del Mecanismo Tecnológico

Informe del Fondo para el Medio Ambiente Mundial acerca de los progresos realizados en la ejecución del programa estratégico de Poznan sobre transferencia de tecnología

Nota de la secretaría*

1. La Conferencia de las Partes, en su decisión 2/CP.14, acogió con satisfacción el programa estratégico de Poznan sobre transferencia de tecnología, propuesto por el Fondo para el Medio Ambiente Mundial (FMAM) en el documento FCCC/SBI/2008/16. El Órgano Subsidiario de Ejecución (OSE), en su 34º período de sesiones, invitó al FMAM a que le presentara informes sobre los avances logrados en la realización de las actividades del programa estratégico de Poznan, incluida su ejecución a largo plazo, para examinarlos en sus períodos de sesiones 35º y subsiguientes, mientras durara la ejecución de dicho programa[1].

2. Atendiendo a esa petición, la secretaría del FMAM ha presentado el informe adjunto (véase el anexo), de fecha 19 de abril de 2013; el informe se reproduce tal y como se presentó, sin haber sido objeto de edición oficial y con la paginación original**.

* Este documento se recibió de la secretaría del Fondo para el Medio Ambiente Mundial el 23 de abril de 2013.

[1] FCCC/SBI/2011/7, párr. 137.

** Las versiones del informe en español y en francés pueden consultarse en http://www.thegef.org/gef/reports_UNFCCC.

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Annex

[English only]

GLOBAL ENVIRONMENT FACILITY

April 19, 2013

IMPLEMENTATION OF THE POZNAN STRATEGIC PROGRAM ON TECHNOLOGY TRANSFER: A PROGRESS REPORT OF THE GEF TO THE SUBSIDIARY BODY FOR IMPLEMENTATION AT ITS THIRTY-EIGHTH SESSION

1. The Global Environment Facility (GEF) prepared this progress report for the thirty eighth session of the Subsidiary Body for Implementation (SBI 38) to the United Nations Framework Convention on Climate Change (UNFCCC), as per guidance given at the thirty-second session of SBI, whereby the GEF was invited to provide half-yearly progress reports on the implementation of the activities receiving support under the Poznan strategic programme.

2. The Conference of the Parties to the UNFCCC at its fourteenth session (COP 14) welcomed the GEF's Strategic Program on Technology Transfer (renaming it the Poznan Strategic Program on Technology Transfer) in COP decision 2/CP.14, as "a step towards scaling up the level of investment in technology transfer in order to help developing countries address their needs for environmentally sound technologies" and recognized "the contribution that this strategic programme could make to enhancing technology transfer activities under the Convention."

3. COP decision 2/CP.14, in Paragraph 2, requested the GEF to:

(a) To promptly initiate and expeditiously facilitate the preparation of projects for approval and implementation under the strategic programme referred to in paragraph 1 in order to help developing countries address their needs for environmentally sound technologies;

(b) To collaborate with its implementing agencies in order to provide technical support to developing countries in preparing or updating, as appropriate, their technology needs assessments using the updated handbook for conducting technology needs assessments for climate change published by the United Nations Development Programme, to be made available in early 2009 in collaboration with the Expert Group on Technology Transfer, the UNFCCC secretariat and the Climate Technology Initiative;

(c) To consider the long-term implementation of the strategic programme, including: addressing the gaps identified in current operations of the Global Environment Facility that relate to investment in the transfer of environmentally sound technologies; leveraging private-sector investment; and promoting innovative project development activities;

(d) To report on the progress made in carrying out the activities referred to in paragraph 2 (a-c) above to the Conference of the Parties at its sixteenth session, in addition to providing interim reports to the Subsidiary Body for Implementation at its thirtieth and thirty-first sessions, with a view to assessing its progress and future direction in order to help inform Parties in their consideration of long-term needs for implementation of the strategic programme.

4. In accordance with decision 2/CP.14, the GEF presented interim reports to SBI 30 and SBI 31, respectively, on the progress made in carrying out the Poznan Strategic Program on Technology Transfer.

5. Subsequently, the conclusions of SBI 31 (FCCC/SBI/2009/15, paragraph 67) invited the GEF to provide a report on the progress made on the implementation of this program at SBI 32, including on the long-term aspects of the Poznan Strategic Program. In response to the above conclusions of SBI 31, the GEF presented an interim report to SBI 32.

6. In accordance with decision 2/CP.14, the GEF presented a report to COP 16 on the progress made in carrying out the activities of the Poznan Strategic Program on Technology Transfer.

7. Conclusions from the SBI 34 agenda item 12 on the development and transfer of technologies FCCC/SBI/2011/7, paragraphs 134–137).stated the following:

(a) The SBI noted the oral report by the GEF and expressed its appreciation to the GEF and its agencies, the United Nations Development Programme and the United Nations Environment Programme on the progress made in carrying out the Poznan strategic programme on technology transfer.

(b) The SBI welcomed the progress made in providing technical and financial support to assist 36 non-Annex I Parties in developing and updating their technology needs assessments (TNAs). The SBI noted that many

non-Annex I Parties expressed their interest to conduct or update their TNAs. The SBI recommended that the COP, at its seventeenth session, invite the GEF to continue to provide financial support to other non-Annex I Parties, as appropriate, to conduct or update their TNAs, noting the availability of the updated handbook *Conducting Technology Needs Assessments for Climate Change*.

(c) The SBI welcomed the progress made by the GEF in providing support for piloting priority technology projects as part of the Poznan strategic programme. The SBI noted that the pilot project proposals submitted by non-Annex I Parties and supported by the GEF included only one project on technologies for adaptation. The SBI also noted the importance of projects on technologies for adaptation, including on the development and strengthening of local knowledge, and invited the GEF, Parties and relevant organizations in a position to do so to provide financial support for project proposals, including those for pilot projects, of the types supported by the Poznan strategic programme related to technologies for adaptation.

(d) The SBI recalled the conclusions of its thirty-second session inviting the GEF to provide half-yearly progress reports on the implementation of the activities receiving support under the Poznan strategic programme. It invited the GEF to provide reports on the progress made in carrying out its activities under the Poznan strategic programme, including its long-term implementation, for consideration by the SBI at its thirty-fifth and subsequent sessions, for the duration of the Poznan strategic programme.

8. In accordance with SBI 34 agenda item 12 conclusions, the GEF presented its progress in carrying out activities under the Poznan strategic program to COP 17. The GEF presented a summary of the report to the COP at the SBI 35.

9. Draft conclusions proposed by the Chair on the SBI 35 agenda item 11 FCCC/SBI/2011/17, paragraphs 95–100) stated the following:

(a) The Subsidiary Body for Implementation (SBI) noted the report of the Global Environment Facility (GEF) on the progress made in carrying out the Poznan strategic programme on technology transfer[2], including its long-term implementation, as invited by the SBI at its thirty-fourth session.

(b) The SBI acknowledged the support provided by the GEF for the implementation of technology transfer pilot projects and for the conduct of TNAs. It further acknowledged the progress made in implementing the long-term programme on technology transfer. Furthermore, it urged the GEF and Parties to expedite the process for the early implementation of projects submitted before 30 September 2009.

(c) The SBI encouraged Parties not included in Annex I to the Convention to develop and submit project proposals, particularly for technologies for adaptation, to the GEF in line with elements of the long-term programme on technology transfer described in document FCCC/SBI/2011/14 paragraphs 46 and 47. The SBI invited the GEF to raise awareness of the long-term programme on technology transfer.

(d) The SBI welcomed the results of the TNAs that are being prepared under the Poznan strategic programme in cooperation with the United Nations Environment Programme (UNEP).

10. In response to SBI 35 requests, the GEF presented interim reports to SBI 36 and SBI 37, respectively, on the progress made in carrying out the Poznan Strategic Program on Technology Transfer and its Long Term Implementation Program.

11. Under SBI 36 agenda item 12, *Development and transfer of technologies (c) Poznan strategic programme on technology transfer* (FCCC/SBI/2012/15, paragraphs 195 to 200), the SBI :

(a) noted the report by the GEF on the progress made in carrying out the Poznan strategic programme on technology transfer, as invited by the SBI 34;

[2] Adopted as document FCCC/SBI/2011/L.34

(b) noted the support provided by the GEF for the implementation of technology transfer pilot projects under the Poznan strategic programme and the views expressed by Parties on the need to balance support for mitigation and adaptation projects. It invited the GEF to enhance the balance between adaptation and mitigation projects in the long-term implementation of the Poznan strategic programme, including by enhancing its outreach and awareness-raising efforts on funding opportunities for projects related to technologies for adaptation. It recalled its conclusion at SBI 35 encouraging non-Annex I Parties to submit project proposals, particularly for technologies for adaptation, to the GEF in line with the elements of the long-term programme described in document FCCC/SBI/2011/14, annex, paragraphs 46 and 47;

(c) invited the GEF and its implementing agencies to expedite the process for the implementation and completion of the remaining technology transfer pilot projects submitted in 2009 for support under the Poznan strategic programme;

(d) acknowledged the support provided by the GEF to assist 36 non-Annex I Parties in conducting their TNAs. It recalled decision 11/CP.17, paragraph 2, which invited the GEF, in the context of TNAs, to continue to provide financial support to other non-Annex I Parties, as appropriate, to conduct or update their TNAs;

(e) recalled the conclusion at SBI 34 inviting the GEF to provide reports on the progress made in carrying out its activities under the Poznan strategic programme, including its long-term implementation, for consideration by the SBI 35 and subsequent sessions. The SBI invited the GEF in its future progress reports to further elaborate on:

1) the activities undertaken by the GEF to enhance its outreach and awareness raising efforts on funding opportunities for projects related to technologies for adaptation in order to address the need for balanced support for projects related to technologies for adaptation;

2) experiences gained and lessons learned, including success stories and challenges faced in carrying out the activities under the Poznan strategic programme;

3) progress made by its implementing agencies in the delivery of technology transfer under the Poznan strategic programme;

4) the efforts carried out to support, pursuant to decision 2/CP.17, the operationalization and activities of the Climate Technology Centre and Network.

(f) stressed the need for the further implementation of the element of the Poznan strategic programme included in document FCCC/SBI/2012/9, paragraph 23(a), to be aligned with, and to enable, the operationalization and activities of the CTC and its Network, taking into account document FCCC/SBI/2012/15, paragraphs 185 and 187, and decision 2/CP.17, paragraph 140.

12. Draft conclusions proposed by the Chair on the SBI 37 agenda item 13(c) FCCC/SBI/2012/33, paragraphs 121–124) stated the following:

(g) The SBI noted the report of the GEF on the progress made in carrying out the Poznan strategic programme on technology transfer

(h) The SBI acknowledged the support provided by the GEF to assist 36 Parties not included in Annex I to the Convention (non-Annex I Parties) in conducting their TNAs. It reiterated decision 11/CP.17, paragraph 2, in which the GEF was invited to continue to provide financial support to other non-Annex I Parties, as appropriate, to conduct or update their TNAs. It invited the GEF to report on its support provided to other non-Annex I Parties to conduct or update their TNAs in its report to the Conference of the Parties at its nineteenth session.

(i) The SBI stressed the need for the further implementation of the element of the Poznan strategic programme on

support for climate technology centres and a climate technology network, which should be aligned with, and support, the operationalization and activities of the Climate Technology Centre and Network (CTCN), taking into account decision 2/CP.17, paragraph 140.

(j) The SBI invited the GEF to consult with the CTCN, through its advisory board, on the support the GEF will provide for the work of the CTCN and to report on the findings of those consultations to the COP at its nineteenth session.

13. The present report is prepared in response to the above SB requests. It covers the period of July 2012 to February 2013.

POZNAN STRATEGIC PROGRAM ON TECHNOLOGY TRANSFER

14. In November 2008, the GEF Council and the Least Developed Country Fund (LDCF)/Special Climate Change Fund (SCCF) Council approved the Strategic Program on Technology Transfer. The Program aimed to scale up the level of investment in the transfer of environmentally sound technologies (ESTs). The approved Program included a funding window of $50 million with $35 million coming from the GEF Trust Fund and $15 million coming from the SCCF. The Strategic Program was then renamed the Poznan Strategic Program on Technology Transfer at COP 14.

15. There are three funding windows to support technology transfer under the Poznan Strategic Programme, namely: (1) TNAs; (2) piloting priority technology projects linked to TNAs; and (3) dissemination of GEF experience and successfully demonstrated ESTs.

16. This report presents the progress made in response to the guidance in each of the COP decision paragraphs. Section A on technology transfer pilot projects documents the progress made in carrying out the activities referred to in COP decision 2/CP.14 Paragraph 2 (a). Section B on TNA reports on the progress made in carrying out the activities referred to in 2/CP.14 Paragraph 2 (b). Section C on long-term implementation of the Poznan Strategic Program reports on the progress made in carrying out the activities referred to in 2/CP.14 Paragraph 2 (c). In addition, the dissemination of the GEF experience and successfully demonstrated ESTs is presented as Section D.

A. Technology Transfer Pilot Projects

17. The purpose of this funding window for technology transfer pilot projects is to finance the deployment, diffusion, and transfer of technologies that have been identified by countries as priorities.

18. Guided by COP decision 2/CP.14, the call for proposals for technology transfer pilot projects under window two of the Poznan Strategic Program was issued in March 2009 by the GEF CEO and closed in September 2009. Fourteen proposals of pilot projects were prioritized for funding, including 13 full-sized projects and one medium-sized project. During the call for proposals, only one proposal for adaptation was received. This proposal was funded, along with three other proposals that included adaptation elements. Total GEF Trust Fund and SCCF-B funding for the 14 pilot projects initially amounted to $58 million, and total co-financing for these projects initially came to more than $195 million. The project proposals and CEO endorsement documents of those under implementation are available at the GEF website: http://www.thegef.org/gef/gef_projects_funding.

19. As of February 2013, GEF Agencies charged with implementing these 14 pilot projects have reported progress in project preparation and implementation:

(a) Nine projects have been GEF CEO endorsed and are progressing in project implementation. These projects are being carried out in Cambodia, Chile, China, Jordan, Mexico, the Russia Federation, Senegal, Sri Lanka and Thailand.

(b) One project has been undergoing preparations for GEF CEO endorsement by the African Development Bank (AfDB) and country's partners. This project will be implemented in Cote d'Ivoire.

(c) One project was re-submitted by another Agency, and was approved by the GEF Council in November 2011. This project will be implemented in Colombia, Kenya, and Swaziland. It is currently undergoing preparations for GEF CEO endorsement.

(d) Three projects were cancelled upon request from the GEF Agencies and/or the concerned national government, one in July 2011, one in February 2012 and one in June 2012.

20. Table 2 provides a summary of progress for project development and implementation of the pilot projects. Although 3 projects were cancelled over the last two years, the total co-financing amount of the ongoing projects accounts for more than initially planned ($235.5 million today, against $195 million initially), highlighting the leverage impact of GEF financing. The GEF funding for the remaining 11 projects now amounts to $51.6 million.

21. The technologies targeted by these projects address both mitigation and adaptation, and are diverse and innovative. They include technologies on renewable energy (solar, biomass, wind), energy efficiency (insulation materials, efficient and hydrofluorocarbon-free appliances), transport ("green" trucks), and composting. For adaptation-related technologies, membrane drip irrigation, flood- and drought-resistant crops with sustainable land management practices, and reduction of wave energy impacts on communities and infrastructure were included.

22. In response to SBI 36 conclusions, the GEF has requested the GEF Agencies in June 2012 and February 2013 to provide updates to further elaborate on the experiences gained and lessons learned in carrying out the Poznan pilot projects and progress made by the Agencies in the delivery of technology transfer. The compiled information is presented in the following paragraphs. Furthermore, to strengthen its outreach and awareness-raising on funding opportunities for both mitigation and adaptation, the GEF published a revised brochure on the Poznan Strategic Program in November 2012. The brochure is available at the GEF website: http://www.thegef.org/gef/pubs/Tech-transfer_2012.

23. The nine CEO-endorsed projects are in early phases of implementation. Information on their implementation status and experience, provided by the GEF Agencies concerned, is summarized below:

- ***Cambodia: Climate Change related Technology Transfer for Cambodia: Using Agricultural Residue Biomass for Sustainable Energy Solutions (United Nations Industrial Development Organization - UNIDO).*** The project is under implementation following GEF CEO endorsement in its May 2012. The inception workshop to launch the project was organized in February 2013 by the Minister of Industry, Mines and Energy and other institutions. More than 150 participants from various stakeholder groups attended, including policy makers and direct beneficiaries. The project has identified the agro residue biomass sources and energy potential in Cambodia. Business dialogues with investors on technical and commercial applications and work plan for detailed project report and installation and commissioning plan have been conducted and completed. An intensive training on Agricultural Residue and Biomass was conducted on 27-28 July 2012 in collaboration with the relevant institutions. Technology sourcing from 32 international technology suppliers has taken place and detailed offers have been received from 14 technology suppliers. The evaluation of the technical offers has been conducted and commercial offers have been shortlisted. Visits to technology suppliers in Thailand and India and selected units having biomass-based power generation have taken place. Twenty-one units using various biomasses have been visited and users were interviewed for operation, maintenance and viability by experts. Assessments of different technologies with respect to their techno-economic viability, environmental performance and social aspects have taken place. Short listing of vendors has been done and the results have been forwarded to the local clients for final decision and commercial negotiation.

  At this project stage, the following lessons learned can be highlighted: (i) the biomass technologies for the considered unit size need to be more flexible; technologies operating on several/multiple fuels need to be considered due to seasonal variation in fuel availability; (ii) among industry decision-makers, a lack of understanding of their economic and environmental potential for clean and green energy using available surplus biomass has been observed and need to be overcome; (iii) insufficient technical capacity within enterprises and in

the market to identify, develop and implement renewable energy projects and measures has been identified and will need to be overcome; (iv) financing and credit constraints faced by private enterprises have been identified and will need to be overcome.

- ***Chile: Promotion and Development of Local Solar Technologies in Chile (Inter-American Development Bank - IDB).*** The project was endorsed by the GEF CEO in June 2012. The project is awaiting IDB eligibility to disburse. Execution is expected to start on April 2013. One of the valuable experiences gained has been the usefulness of integrating the distribution companies in the project conversations very early in the process (before the project officially starts) to mitigate any misunderstandings and gain the collaboration of these companies, which will be vital for successfully implementing distributed generation mechanisms in the near future.

- ***China: Green Truck Demonstration Project (World Bank - WB).*** Following its endorsement by the GEF CEO in March 2011, the project was launched in October 2011. As of early 2013, the project has managed to reach several key targets: (i) the project website has been established; (ii) 75 government and industry representatives have been trained (the number of enterprise representatives trained stands presently at 50, while the target for project completion is 1,000), (iii) the green freight trade fair was successfully held. Demonstration activities were initiated in September 2012.

  The participating long-distance trucking companies have begun to install GPS-linked fuel monitoring equipment to support efficiency improvement. This has met with more than anticipated challenges for several reasons. First, many truckers already own GPS devices, so they have been unwilling to invest in the new devices being promoted as part of the demonstration technology package under the project. Secondly, the technology packages were originally designed for trucks with a single fuel tank, with the objective of transmitting real-time fuel consumption data to headquarters to be better able to track efficiency. However, many of the companies have installed multiple fuel tanks to avert refueling during the shipment. These challenges are considered to be surmountable, and it is still expected that the real-time efficiency and fuel monitoring will be an extremely helpful innovation. Initial experiences will be closely monitored and shared in order to increase interest in participation in second phase demonstration activities. Challenges remain, particularly in attracting more trucking companies and technology vendors to participate in the demonstration scheme of energy efficiency truck technologies. Two reasons may explain why the international technology suppliers have not been as active and forthcoming as originally intended: (i) the 2008 recession in its aftermath has limited the willingness of relatively small companies providing the relatively specialized technologies to participate in the Chinese market; (ii) the subsidies being offered under the project are insufficient to attract foreign investors. The project team continues to encourage both more international participation and additional Chinese companies to participate.

- ***Jordan: DHRS Irrigation Technology Pilot Project to Face Climate Change Impact (International Fund for Agricultural Development - IFAD).*** This adaptation project seeks to reduce the vulnerability of irrigated agriculture to climate change by testing innovative and efficient water-use technologies. The project was endorsed by the GEF CEO in May 2011 and has been re-designed, as initial field trials carried out during the project inception showed that the proposed technologies did not perform as expected under the local conditions. As a result, the Project Steering Committee has decided to adopt alternative technologies for improved water-use efficiency. The Project Preparation Grant provided by the GEF allowed the identification of challenges related to the selected technology.

- ***Mexico: Promotion and Development of Local Wind Technologies in Mexico (IDB).*** The project was approved by IDB in May 2012, following the GEF CEO's endorsement in December 2011. The ADB reports that the project is at an early stage of execution. The Electrical Research Institute (IIE) as executing agency is currently fulfilling conditions prior to first disbursement. The implementation is expected to initiate on June 2013, after obtaining eligibility of the conditions prior to first disbursement. As part of the kick off meeting of the project, an event will be held to launch this project probably, with participation of the Executing Agency (IIE, the Secretariat of Energy, the Knowledge Science and Technology Agency of Mexico, the GEF and the IDB.

- ***Russian Federation: Phase out of HCFCs and Promotion of HFC-free Energy Efficient Refrigeration and Air-Conditioning Systems in the Russian Federation through Technology Transfer (UNIDO).*** The project has started its implementation in March 2011. Both the technical and institutional aspects have gained attraction with public

and private stakeholders. Significant progress has been made in prioritizing and accelerating the phase out of hydrochlorofluorocarbons (HCFCs), using new non-hydrofluorocarbon technologies and improving energy efficiency. The Government has received good stakeholder support and the necessary legislation of banning import of HCFC is put in place. Moreover, the implementation of HCFCs legislation has been replicated in Kazakhstan and Belarus due to the existing trade agreement between those countries.

The pilot demonstration entails the conversion of production facilities and foam and refrigeration and air-conditioning factories as well as the conversion of foam systems houses which provide foam formulations to users in a variety of sectors. The procurement of equipment for one of the factories in the foam sector has been completed with an expected delivery for early 2013. In addition, the project contributed to the organization of the Microclimate, Energy Efficiency and Building Automation Center, which will support spreading of environmentally-friendly and energy-efficient heating, ventilation, air-conditioning and refrigeration (HVAC&R) systems within the framework of the public education system of the Russian Federation. This Center joins prominent players in the Russian HVAC&R market and such organizations as the Russian Energy Agency, Ministry of Energy and the Nonprofit Partnership "Green Standards Environmental Certification Center". The equipment for the Centre has been partially provided. It conducted its first training on the use of hydrocarbon refrigerants in air conditioners on September 3–7, 2012.

With regard to the dissemination of information and experience, the following activities have been undertaken: (i) publication in Russian of a leaflet titled 'Preparing for HCFC phase-out: Fundamentals of uses, alternatives, implications and funding for Article 5 countries'; (ii) organization of a Campaign for the Promotion of HCFC Phase Out in the Russian Federation; (iii) celebration of the International Day for the Preservation of the Ozone Layer held with support of the Ministry of Natural Resources and Ecology of the Russian Federation, UNIDO, GEF, and state polytechnic college #19, in Saint-Petersburg, on September 17, 2012; (iv) As part of the celebration of the 25th anniversary of the Montreal Protocol, lecturers of specialist educational establishments and students from all parts of Russian Federation took a course of lectures dedicated to ozone-depleting substances (ODS)-containing equipment conversion to ozone-free refrigerants and environmentally-safe ODS destruction; (v) the first Russian portal dedicated to the ozone issues was launched: www.ozoneprogram.ru. The project experience highlights the importance of strengthening the cooperation between the private sector and the government, especially to take into consideration the private sector's interests when amending laws.

- ***Senegal: Typha-based Thermal Insulation Material Production in Senegal (United Nations Development Programme - UNDP).*** The project was endorsed by the GEF CEO in August 2012. It has started implementation. Project activities are in the process of initiation, to be fully operational in 2013. Its implementation is coordinated with another GEF-UNDP project on designing and implementing thermal building codes for new constructions for the very first time in Senegal. This project illustrates the merits of project preparation, stakeholder engagement, and awareness-raising. The project preparation phase generated significant interest among various stakeholders, both from the private and public sectors. National institutions (Ministry of Environment, Ministry of Energy, Energy Efficiency Agency, Ministry of Education and Professional Training and others) began discussing how to work together towards the promotion of an energy efficient building sector. The project is also raising the interest of neighboring countries as well as of regional institutions such as the Economic Commission for West African States (ECOWAS). In particular, the ECOWAS Center for Renewable Energy and Energy Efficiency, one of the contributors to the project, is keen to communicate the findings and duplicate the approach to other countries in the region. Such stakeholder engagement and dialogue during the project preparation phase has generated insight into the importance of a favorable policy environment for technology transfer. In order to maximize and accelerate such technology transfer, the appropriate national enabling conditions must be established and met. For instance, mandatory thermal building codes are key to ensure a market robust enough for the private sector to invest in the manufacture of local thermal building insulation.

- ***Sri Lanka: Bamboo Processing for Sri Lanka (UNIDO).*** The project was endorsed by the GEF CEO in April 2012. The launching of the project took place in September 2012. A Project Management Unit has been established and a Steering Committee appointed. The first Steering Committee was held on 29th November 2012 at the Ministry of Industry and Commerce. In 2013 the piloting phase is taking place for initial steps on each of the components. The mapping has been started using GIS to assess the Bamboo resource spread in Sri Lanka. An initial bamboo resource map has been developed for the identification of pilot sites. During the piloting stage of the

project, representative sites will be selected for pilot activities. The project has assigned these experts to identify pilot sites. Once the pilot sites will be identified, The UNIDO will demonstrate bamboo processing technology transfer to showcase the results. At the same time, UNIDO started a negotiation to establish a national bamboo association for the ownership but also linkage to a non-grant instrument for various technology replications. Local community association will also be involved to create community based bamboo production for various purposes. The Agency has reported that there is a very strong interest by local stakeholders to implement this technology transfer project.

- ***Thailand: Overcoming Policy, Market and Technological Barriers to Support Technological Innovation and South-South Technology Transfer: The Pilot Case of Ethanol Production from Cassava (UNIDO).*** The project was endorsed by the GEF CEO in March 2012. As of March 2013, the project is still awaiting country clearance.

24. For the two projects that are preparing their final project documents for endorsement by the GEF CEO, the following initial elements were presented by the GEF Agencies concerned:

- ***Cote d'Ivoire: Construction of 1000 Ton per day Municipal Solid Wastes Composting Unit in Akouedo Abidjan (AfDB).*** The project preparation faced significant challenges, as it coincided with the period of instability in the country, with changes in the political environment as well as in government priorities. The Implementing Agency submitted a CEO endorsement request in January 2013. The AfDB is now preparing a revised version following GEF comments and is expected to resubmit in April 2013.

  The preparation phase provided two additional insights. It showed that, beside technology viability and the existing or implementation of national regulations for waste management, other factors such as the land availability, its price for the composting plant, and the logistics to collect the organic waste were also key and often neglected. It also showed that when local private sector stakeholders are involved and they want to deploy a new technology there is need to support them in the project pre-investment phase, in the pricing structure and in financing mechanism.

- ***Colombia, Kenya, Swaziland; SolarChill: Commercialization and Transfer (UNEP).*** This project was initially approved with the World Bank as the Implementing Agency. However, the World Bank withdrew in 2010 from the project. The project was then re-submitted by UNEP with the addition of Swaziland. The GEF Council approved the project in November 2011. The request for endorsement by the GEF CEO is expected to be submitted by June 2013.

B. Technology Needs Assessments

25. The TNA project concept, under window one of the Poznan Strategic Program, was approved by the LDCF/SCCF Council in April 2009. Based on this TNA project concept, UNEP, as the GEF Agency, developed a full project document, which was endorsed by the GEF CEO in September 2009. Project implementation by UNEP started in October 2009. Total GEF funding for this project is $9 million.

26. The objective of the TNA project is to provide targeted financial and technical support to assist 35 to 45 developing countries in developing and/or updating their TNAs within the framework of Article 4.5 of the UNFCCC. The intention is that assisted countries go beyond identifying technology needs narrowly and develop national technology action plans (TAPs) for prioritized technologies. The objective also seeks to use the updated TNA Handbook and provide feedback to fine-tune methodologies through and iterative process.

27. Key areas of the UNEP TNA project progress, summarized from an update submitted by the Agency, include the following:

(a) Thirty-six countries are participating in the TNA project. They include:

Africa (11): Cote d'Ivoire, Ethiopia, Kenya, Ghana, Mali, Morocco, Mauritius, Rwanda, Senegal, Sudan, Zambia;
Asia and Europe (15): Azerbaijan, Bangladesh, Bhutan, Cambodia, Georgia, Indonesia, Kazakhstan, Laos, Lebanon, Moldova, Mongolia, Nepal, Sri Lanka, Thailand, Vietnam; and
Latin America and the Caribbean (10): Argentina, Bolivia, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Peru.

(b) A Project Steering Committee (PSC) has been constituted by UNEP to assess the project's progress and to plan upcoming activities. The PSC consists of representatives of the Expert Group on Technology Transfer (EGTT) until 2010, the UNFCCC Secretariat, UNEP, UNDP, UNIDO, the World Bank, UNEP Risoe Centre and the GEF Secretariat. PSC meetings were held in November 2011, May 2012 and December 2012.

(c) In regard to progress in TNA preparations, finalized TNA and TAP reports were submitted by 16 countries (Argentina, Azerbaijan, Cambodia, Costa Rica, Dominican Republic, El Salvador, Georgia, Indonesia, Lebanon, Mali, Morocco, Peru, Senegal, Sri Lanka, Thailand, and Vietnam) between 2012 and the beginning of 2013. For the remainder of the countries, UNEP requested a project extension until April 2013. It is expected that the remainder of the countries will have finalized their reports by end of March 2013. TNAs and TAPs are recognized as contributing to existing national policies, plans/strategies including Nationally appropriate mitigation actions (NAMAs), low-carbon development strategies, and the Millennium Development Goals. The UNEP reports that linkages between the TNA Project and other climate change projects under UNFCCC such as National Communications have also been strengthened.

(d) The project has published material in 2011 and 2012 on TNA practices. In total, nine guidebooks were published; six sectoral guidebooks for both mitigation and adaptation, two finance guidebooks (one for mitigation and one for adaptation projects), and one on Barrier Analysis. All the guidebooks are available at the project website: http://www.tech-action.org/.asp.

(e) An Experience Sharing Workshop was held in Bangkok, Thailand in September 2012. The main objectives of the workshop were to: (i) showcase best practices in TNA implementation; (ii) generate feedback from participating countries on the implementation process feeding into an expected new round of TNAs in response to requests from countries; (iii) enhance capacity of National TNA Coordinators in project proposal development; and (iv) facilitate interaction between country representatives and the funding community.

(f) The first project newsletter ("TNA Newsletter"), aimed at keeping countries and other stakeholders informed of the project's progress and sharing experiences, was published in June 2011. The second newsletter was released in October 2011; the third volume was published in November 2011 and distributed during COP 17; the fourth newsletter was published in May 2012; and the fifth newsletter was distributed during COP 18.

(g) The project held a side event during COP 18.

28. The experience gained at this stage shows that:

(a) High-level political support is crucial for TNA implementation effectiveness and sustained momentum against a backdrop of often competing initiatives in a given country. Some of the successful examples are Indonesia, Sri Lanka, Lebanon, Costa Rica and Dominican Republic. In addition, regular project updates delivered at periodic and ad hoc meetings to political and technical actors is needed to buttress this political buy-in. In countries where less political will and commitment were found, the results were less satisfactory and often delayed. Some of the examples are Bolivia, Guatemala, Ethiopia, Kenya and Nepal.

(b) Stakeholder engagement and commitment to the TNA process tends to be high where there is a strong signal from donors regarding the availability of financing for the TAP, National Adaptation Programmes of Action and NAMA or specific prioritized technologies.

(c) Efforts should continue to explore and operationalize synergies between TNA-TAP processes in countries and

other existing efforts such as NAMAs, National Communications, and specific technology transfer projects to address the need to implement the results of TNAs and other efforts, while reaching out as well to new initiatives such as the CTCN.

(d) Creating an efficient mechanism for delivering highly targeted information about real funding opportunities linked to prioritized technologies would be crucial.

C. Long-Term Implementation of the Poznan Strategic Program

29. In keeping with the COP 14 decision that requested the GEF to consider the long-term implementation of the strategic program on technology transfer, the GEF has identified technology transfer as a longer-term priority in the climate change focal area for GEF-5 programming. GEF-5 climate change mitigation strategy promotes technology transfer at various stages of the technology development cycle, from demonstration of innovative, emerging low-carbon technologies to diffusion of commercially proven, environmentally sound technologies and practices. For adaptation, the transfer and adoption of technologies is a strategic objective of the LDCF and the SCCF.

30. In response to decision 2/CP.14, the GEF submitted a Long-Term Program on Technology Transfer to COP 16. The GEF submission included the following elements to further scale up investment in ESTs in developing countries in accordance with the GEF climate change strategy, and to enhance technology transfer activities under the Convention:

(a) Support for Climate Technology Centers and a Climate Technology Network

(b) Piloting Priority Technology Projects to Foster Innovation and Investments

(c) Public-Private Partnership (PPP) for Technology Transfer

(d) Technology Needs Assessments

(e) GEF as a Catalytic Supporting Institution for Technology Transfer

31. The GEF-5 climate change portfolio can be characterized as supporting technology transfer for mitigation. In GEF-5, as of early March 2013, the GEF has funded 105 projects supporting technology transfer activities with $955.1 million of GEF funding and $7.5 billion of co-financing. Among these projects, 24 projects address the promotion and transfer of innovative low carbon technologies while the remaining 81 are aimed at market transformation for specific technologies. Eight of these projects incorporated both mitigation and adaptation objectives with additional funding from the SCCF, and 54 combined climate change mitigation objectives with the objectives of other focal areas.

32. The GEF, through the LDCF and SCCF-A, has approved $467.5 million and $190.8 million respectively for 98 and 46 adaptation projects. These projects represent a considerable contribution towards the demonstration, deployment and diffusion of climate-resilient technologies. Out of the projects approved under the LDCF, an estimated 60 per cent have distinct components aimed at technology transfer. Under SCCF-A, more than 50 per cent of projects focus explicitly on technology transfer.

33. The progress made in Long-Term Program implementation was reported to COP 17. During this reporting period, the following progress has been made in the elements of the Long-Term Program.

(a) *Support for Climate Technology Centers and a Climate Technology Network*:
The regional project "Pilot Asia-Pacific Climate Technology Network and Finance Center" was endorsed by the GEF CEO in May 2012 and has started implementation with the Asian Development Bank (ADB) and UNEP. Its first steering committee meeting took place in December 2013 in Doha.

The GEF is awaiting submission for CEO endorsement for the three remaining regional projects (see Table 1).

Table 1

GEF Regional Projects for Climate Technology Transfer and Financing Centers

Title	*Region*	*Agency*	*GEF financing ($ millions)* GEF Trust Fund	SCCF	*Co-financing ($ millions)*	*Status*
Pilot Asia-Pacific Climate Technology Network and Finance Center	Asia and Pacific	ADB/ UNEP	10.0	2.0	74.7	Under implementation
Pilot African Climate Technology Finance Center and Network	Africa	AfDB	10.0	5.8	95.0	Council approved
Regional Climate Technology Transfer Center	Europe and Central Asia	EBRD	10.0	2.0	77.0	Council approved
Climate Technology Transfer Mechanisms and Networks in Latin America and the Caribbean	Latin America and the Caribbean	IDB	10.0	2.0	63.4	Council approved

In response to COP guidance regarding GEF collaboration with the CTCN, the GEF secretariat contacted the UNFCCC secretariat and UNEP as the CTCN host during the first quarter of 2013 to inquire on how to liaise with the CTCN Advisory Board. Based on this inquiry, the GEF planned to participate, as an observer, to the first CTCN Advisory Board meeting in Bonn on March 28, 2013. The meeting has then been postponed to May 14-15, 2013 in Copenhagen.

In addition to the piloting and innovative projects listed in Table 1 and explained in previous GEF reports on the Poznan Program and its Long-Term Implementation, the GEF, with the means at its disposal and in line with GEF procedures, is ready to continue to support the operationalization and activities of the CTCN in response to decision 2/CP.17. During the reporting period, various piloting and technology transfer projects at the national level have been approved by the GEF Council, as summarized in the following section. During this reporting period, the GEF has not received formal CTCN project proposals with the primary objective to support the operationalization of the CTCN.

(b) *Piloting Priority Technology Projects to Foster Innovation and Investments*: During this reporting period (July 2012–February 2013), for climate mitigation, 16 projects supporting technology transfer activities were approved with $62.4 million of GEF funding and $356.3 million of co-financing. These include 3 projects aimed at promoting and transferring innovative low carbon technologies, and 12 addressed toward market transformation in targeted sectors. Out of 16 projects, 4 projects have multiple focal area objectives.

Among the 16 projects approved by the GEF Council during the reporting period, the following project concepts promote the demonstration, deployment, and transfer of innovative low-carbon technologies (objective 1 of the GEF-5 climate change mitigation strategy):

- India: Cleantech Programme for SMEs in India
- Malaysia: Cleantech Programme for SMEs in Malaysia
- Mexico: Integrated Responses to Short-Lived Climate Forcers Promoting Clean Energy and Energy Efficiency

Among the 16 projects approved by the GEF Council during the reporting period, the following project concepts contain technology transfer under additional GEF-5 mitigation objective areas that address market transformation in energy efficiency, investments in renewable energy, low-carbon transport urban systems, and conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry (objectives 2 through 5 of the GEF-5 climate change mitigation strategy):

- Brazil: Low-Carbon Urban Mobility for Large Cities
- Djibouti: Geothermal Power Generation Program
- Ecuador: Rural Electrification with Renewable Energy in Isolated Areas of Ecuador
- Ecuador: Securing Energy Efficiency in the Ecuadorian Residential and Public Sectors (SECURE)
- Iraq: Catalysing the Use of Solar Photovoltaic Energy
- Macedonia: Catalyzing Market Transformation for Industrial Energy Efficiency and Accelerate Investments in Best Available Practices and Technologies in the Former Yugoslav Republic of Macedonia
- Sierra Leone: Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement
- St. Lucia: Iyanola - Natural Resource Management of the NE Coast
- Tanzania: Promotion of Waste-to-Energy Applications in Agro-Industries

During the reporting period, the following project concepts that promote the demonstration, deployment, and transfer of innovative climate-resilient technologies (Objective 3 of the GEF Strategy for Adaptation to Climate Change) have been approved by the LDCF/SCCF Council:

- Niger: Integrating climate resilience into agricultural and pastoral production for food security in vulnerable rural areas through the Farmers Field School approach
- Madagascar: Adapting Coastal Zone Management to Climate Change Considering Ecosystem and Livelihood Improvement
- Burkina Faso: Integrating Climate Resilience into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach
- Burundi: Community Disaster Risk Management
- Mali: Strengthening Resilience to Climate Change through Integrated Agricultural and Pastoral Management in the Sahelian zone in the Framework of the Sustainable Land Management Approach
- Angola: Promoting Climate-resilient Development and Enhanced Adaptive Capacity to Withstand Disaster Risks in Angolan's Cuvelai River Basin
- Yemen: Integrated Water Harvesting Technologies to Adapt to Climate Change Induced Water Shortage
- Sierra Leone: Building Resilience to Climate Change in the Water and Sanitation Sector
- Uganda: Building Resilience to Climate Change in the Water and Sanitation Sector
- Lesotho: Strengthening Capacity for Climate Change Adaptation through Support to Integrated Watershed Management Programme
- Mali: Strengthening the Resilience of Women Producer Group's and Vulnerable Communities
- Tunisia: Addressing Climate Change Vulnerabilities and Risks in Vulnerable Coastal Areas
- Kyrgyz Republic: Promoting Climate Resilience of Water Supplies
- Georgia: Enhancing Resilience of the Agricultural Sector

(c) *Public Private Partnership for Technology Transfer*:
PPP Programs can be a strong tool for promoting technology transfer by supporting businesses in developing countries that are trying to commercialize or scale-up ESTs. During the reporting period, no

new PPP program has been approved by the GEF Council. One PPP Program proposal will be presented to the GEF Council in April 2013.

(d) *Technology Needs Assessments*:
Progress achieved under the Poznan Strategic Program on Technology Transfer, particularly in the development of pilot projects and TNAs, has highlighted the need to go beyond current practices to catalyze investments in technology transfer. The GEF Council has approved in April 2013 a project by UNEP supporting additional TNAs focusing on 24 low- and medium-income countries. This project takes into consideration the lessons learned from the ongoing Poznan-supported TNA project. The activities of the on-going Poznan-supported TNA project are presented paragraph 27. In addition, the GEF Council approved a project in China focusing on the preparation of its National Communication and Biennial Update Report that includes activities to determine the feasible policy and technology options for the country in mitigating climate change. This project will thus complement China's TNA.

(e) *GEF as a Catalytic Supporting Institution for Technology Transfer:*
The GEF participated in key international discussions supporting the development of technology transfer initiatives and to raise awareness about the Longer-Term Program during the reporting period (see also paragraph 34 to 36). Some examples include the following:

- COP 18 Side event co-organized by the GEF and the Asian Development Bank: "High Level Event on Technology Transfer and Finance", 3 December 2012. The event focused on existing initiatives supporting climate technology transfer and financing. Various high level speakers discussed the role of the development banks in climate technology financing, and presented private sector experiences and views on the subject.
- Technology Mechanism-related meeting: As an observer, the GEF attended the fourth meeting of the Technology Executive Committee (TEC), held from 6 to 8 September, 2012 and the fifth meeting of the TEC to be held from 26 to 27 March 2013.

D. Dissemination of GEF Experiences and Successfully Demonstrated Environmentally Sound Technologies

34. In November 2012, the GEF published the following materials:

(a) Two updated brochures presenting its activities on technology transfer support:
- Implementing the Poznan Strategic and Long-Term Programs on Technology Transfer,
- Transfer of Environmentally Sound Technologies - Case studies from the GEF Climate Change portfolio.

(b) Three new and updated brochures presenting its experience on technology support for the sectors targeted by the GEF-5 strategy:
- Investing in Renewable Energy: the GEF Experience,
- Land Use, Land-Use Change and Forestry (LULUCF) Activities,
- Investing in sustainable transport and urban systems, the GEF experience.

(c) A book on energy efficiency entitled "Closing the Gap: GEF Experiences in Global Energy Efficiency", and an executive summary of this work in a booklet form.

(d) A booklet summarizing all COP guidance dating from the first COP (COP 1) to COP 17, and the corresponding GEF responses titled "United Nations Framework Convention on Climate Change Conference of the Parties guidance and GEF responses 1995–2011".

35. The GEF website has been updated periodically with specific information on technology transfer, which can be accessed from: http://www.thegef.org/gef/TT.

36. In addition to the meetings summarized in paragraph 33 (e), the GEF presented its technology transfer programming at the following additional meetings, many of which included the UNFCCC national focal points as participants:

- GEF Familiarization Seminar, January 30–February 1, 2013
- Expanded Constituency Workshops
    - Fiji, 10–12 July 2012
    - Mozambique, 1–3 August 2012
    - Cote d'Ivoire, 4–6 September 2012
    - Armenia, 25–27 September 2012
    - Tanzania, 30 October–1 November 2012
    - India, 5–6 November 2012
    - Turkey, 11–13 December 2012
    - Honduras, 19–20 February 2013

Table 2: Implementation Progress of Technology Transfer Pilot Projects Under the Poznan Strategic Program (as of February 2013)
* Including agency fee and project preparation grants (if any).

Country	Project title	GEF Agency	GEF Poznan Program Funding ($)	Total GEF Funding ($)	Co-financing ($)	Comment on Progress
Brazil	Renewable CO_2 Capture and Storage from Sugar Fermentation Industry in Sao Paulo State	UNDP	2,970,000	2,970,000	At Council Work Program Approval: 7,715,000	The project was cancelled in February 2012 upon request from the Agency. The project preparation identified investment costs far higher than initially expected, exceeding the available financing.
Cambodia	Climate Change related Technology Transfer for Cambodia: Using Agricultural Residue Biomass for Sustainable Energy Solutions	UNIDO	1,947,000	1,947,000	At CEO endorsement: 4,565,000	The project was endorsed by the GEF CEO in May 2012. The project is under implementation.
Chile	Promotion and Development of Local Solar Technologies in Chile	IDB	3,000,000	3,000,000	At CEO endorsement: 31,750,000	The project was endorsed by the GEF CEO in June 2012. Execution is expected to start on April 2013.
China	Green Truck Demonstration Project	World Bank	2,998,000	4,867,500	At CEO endorsement: 9,770,000	The project was endorsed by the CEO in March 2011 and approved by the World Bank Board in April 2011. Project Launch took place in China in October 2011. The project is under implementation.

Colombia, Kenya, Swaziland	SolarChill: Commercialization and Transfer	UNEP	2,841,300	2,986,000	At Council Work Program Approval: 5,662,900	The project was re-submitted by UNEP after the World Bank requested its cancellation in December 2010. The GEF Council approved the project in November 2011. The GEF CEO endorsement request is expected to be submitted by June 2013.
Cote d'Ivoire	Construction of 1000 Ton per day Municipal Solid Wastes Composting Unit in Akouedo Abidjan	AfDB	3,000,000	2,998,000	At Council Work Program Approval: 36,898,500	A CEO endorsement request was submitted in January 2013. GEF review comments were sent back to the Agency in January 2013. A revised project is expected to be submitted in April 2013.
Jamaica	Introduction of Renewable Wave Energy Technologies for the Generation of Electric Power in Small Coastal Communities	UNDP	816,000	816,000	At Council Work Program Approval: 1,420,000	The project was cancelled in October 2011 upon request from the Agency.
Jordan	DHRS Irrigation Technology Pilot Project to Face Climate Change Impact	IFAD	2,365,020	2,365,020	At CEO endorsement: 5,516,000	The project was endorsed by the CEO in August 2011. Project implementation is underway.
Mexico	Promotion and Development of Local Wind Technologies in Mexico	IDB	3,000,000	5,500,000	At CEO endorsement: 33,660,000	Project was endorsed by the CEO in December 2011. Project implementation is expected to commence in June 2013.

Russian Federation	Phase out of HCFCs and Promotion of HFC-free Energy Efficient Refrigeration and Air-Conditioning Systems in the Russian Federation through Technology Transfer	UNIDO	2,970,000	19,998,000	At CEO endorsement: 40,000,000	The project was endorsed by the CEO in August 2010. Project implementation is ongoing.
Senegal	Typha-based Thermal Insulation Material Production in Senegal	UNDP	2,310,000	2,310,000	At CEO endorsement: 5,647,884	The project was endorsed by the GEF CEO in August 2012 and has started implementation.
Sri Lanka	Bamboo Processing for Sri Lanka	UNIDO	2,700,500	2,700,500	At CEO endorsement: 21,297,000	The project was endorsed by the GEF CEO in April 2012. The project is under implementation.
Thailand	Overcoming Policy, Market and Technological Barriers to Support Technological Innovation and South-South Technology Transfer: The Pilot Case of Ethanol Production from Cassava	UNIDO	2,970,000	2,970,000	At CEO endorsement: 31,623,000	The project was endorsed by the GEF CEO in March 2012. It is awaiting country clearance.
Turkey, Cook Islands	Realizing Hydrogen Energy Installations on Small Island through Technology Cooperation	UNIDO	3,000,000	3,000,000	At Council Work Program Approval: 3,500,000	The project was cancelled in March 2012 upon request from the Agency following changes in the concerned governments' priorities.
TOTAL			**36,887,820**	**58,428,320**	**239,025,284**	
Total (cancelled projects excluded)			**30,101,820**	**51,642,320**	**235,525,284**	