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Item 4 of the provisional agenda **Development and transfer of technologies** 

# **Report on the UNFCCC regional training programme on project preparation**

#### Note by the secretariat

Summary

In response to a request by the Conference of the Parties at its thirteenth session, the secretariat coordinated the implementation of a regional training programme on project preparation. The training programme was initiated by a 'training of trainers' workshop in 2008 followed by three regional workshops for Africa, Latin America and the Caribbean, and Asia and the Pacific in 2009 and 2010.

This note provides information on the outcomes, experiences and lessons learned from the organization of the training programme on preparing technology transfer projects for financing. It elaborates on issues for further consideration, including possible follow-up actions to increase the number of beneficiaries of the training programme and to address specific training needs at the subregional and national level.



### Contents

|         |                                                                                      | Paragraphs | Page |  |  |
|---------|--------------------------------------------------------------------------------------|------------|------|--|--|
| I.      | Introduction                                                                         | 1–4        | 3    |  |  |
|         | A. Mandate                                                                           | 1–2        | 3    |  |  |
|         | B. Scope of the note                                                                 | 3          | 3    |  |  |
|         | C. Possible action by the Subsidiary Body for Scientific and<br>Technological Advice | 4          | 3    |  |  |
| II.     | Training programme on preparing technology transfer projects for financing           | 5–27       | 3    |  |  |
|         | A. Background                                                                        | 5–11       | 3    |  |  |
|         | B. Overview of the regional training programme on project preparation                | 12-22      | 5    |  |  |
|         | C. Training activities                                                               | 23–27      | 6    |  |  |
| III.    | Experiences, lessons learned and results of the training                             | 28–47      | 8    |  |  |
|         | A. Experiences and lessons learned                                                   | 28-41      | 8    |  |  |
|         | B. Results of the training                                                           | 42–47      | 10   |  |  |
| IV.     | Possible follow up actions                                                           | 48         | 12   |  |  |
| Annexes |                                                                                      |            |      |  |  |
| I.      | Checklist for preparing project proposals                                            |            | 13   |  |  |
| II.     | Phases in project development                                                        |            |      |  |  |
| III.    | Project summaries                                                                    |            | 15   |  |  |

#### I. Introduction

#### A. Mandate

1. The Conference of the Parties (COP), at its thirteenth session, requested the secretariat to coordinate the implementation of a regional training programme on project preparation to be initiated by a 'training of trainers' programme in the second half of 2008 followed by regional training workshops in 2008 and 2009, with the participation of, inter alia, the United Nations Industrial Development Organization (UNIDO), the United Nations Institute for Training and Research (UNITAR), the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the Climate Technology Initiative (CTI) and the Renewable Energy & Energy Efficiency Partnership (REEEP), and building on available methods, tools and experiences from other relevant international organizations.<sup>1</sup>

2. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its thirtysecond session, noted that the secretariat would prepare a report on the experiences gained and lessons learned from the organization of the regional training workshops on preparing technology transfer projects for financing, for consideration by the SBSTA at its thirty-third session with a view to determining any further follow-up actions, as appropriate.<sup>2</sup>

#### **B.** Scope of the note

3. This note provides information on the outcomes, experiences and lessons learned from the organization of the training programme on preparing technology transfer projects for financing organized in 2009 and 2010. It elaborates on issues for further consideration, including possible follow-up actions to increase the number of beneficiaries of the training programme and to address specific training needs at the subregional and national level.

## C. Possible action by the Subsidiary Body for Scientific and Technological Advice

4. The SBSTA may wish to consider the information contained in this document with a view to determining any follow-up actions, as appropriate.

# II. Training programme on preparing technology transfer projects for financing

#### A. Background

5. Since the adoption of the Marrakesh Accords, the development and transfer of technologies and its related activities under the UNFCCC have focused on the implementation of the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention (the technology transfer framework) and on the work of the Expert Group on Technology Transfer (EGTT).

<sup>&</sup>lt;sup>1</sup> FCCC/CP/2007/6, paragraph 79 (a).

<sup>&</sup>lt;sup>2</sup> FCCC/SBSTA/2010/6, paragraph 31.

6. In accordance with the technology transfer framework, the purpose of technology needs assessments (TNAs) is to assist in identifying and analysing priority technology needs. These needs can form the basis for a portfolio of environmentally sound technology (EST) projects and programmes to facilitate the transfer of, and access to, ESTs and knowhow in the implementation of Article 4, paragraph 5, of the Convention.

7. The EGTT has indicated<sup>3</sup> that TNAs form the centrepieces of the work on technology transfer and reflect the concept of a country-driven approach to this work. They are also essential in bringing together the relevant stakeholders at the national level to identify technology needs and in developing plans of action to meet those needs.

8. Lessons learned from the work of the EGTT on TNAs over the past few years have highlighted the need for immediate follow-up actions in two main areas:

(a) To assist developing country Parties to assess, prioritize and update their technology needs;

(b) To provide technical assistance to project developers in developing countries in converting project ideas identified in TNAs into project proposals that will meet the standards of international financial providers.

9. The secretariat, in collaboration with the EGTT and other intergovernmental organizations, organized two workshops on innovative options for financing the development and transfer of technology (held in Montreal, Canada, in 2004 and in Bonn, Germany, in 2005). The conclusions of these workshops underlined the increasing engagement of the private sector in the implementation of the findings of TNAs. The lessons learned included: (1) finance is available – there is no shortage of money; (2) some projects are not suitable for private sector financing; (3) there are many projects that could, however, access financing with the right guidance and structuring; (4) there is a shortage of good financing/project proposals that meet the standards and criteria of private sector financing communities; and (5) an early-stage filter mechanism during the TNA process would be beneficial to sort projects into three broad financing groups: the private sector; the private and public sectors; and the public sector.

10. Another lesson learned from the workshops is that capacity-building for project development is a key component in accessing new markets for investment financing. Many projects are poorly prepared and do not meet international standards. Project development tools, such as software models, should therefore be made available to project developers in developing countries.

11. In response to this need, the secretariat, in collaboration with the EGTT, developed the UNFCCC publication *Preparing and Presenting Proposals: A Guidebook on Preparing Technology Transfer Projects for Financing*<sup>4</sup> (hereinafter referred to as the practitioners' guide) to assist project developers in developing country Parties and other stakeholders in preparing financing proposals that will meet the standards of international financial providers. In addition, a number of training sessions on the use of the practitioners' guide were organized during the tenth meeting of the EGTT, held in November 2006 in Nairobi, Kenya, and at the workshop on best practices in conducting TNAs held in June 2007 in Bangkok, Thailand.

<sup>&</sup>lt;sup>3</sup> FCCC/SBSTA/2006/INF.4, paragraph 20.

<sup>&</sup>lt;sup>4</sup> Available at <http://unfccc.int/ttclear/jsp/Guidebook.jsp>.

#### B. Overview of the regional training programme on project preparation

#### 1. Objectives and scope of the training programme

12. In response to the request by the COP at its thirteenth session, referred to in paragraph 1 above, the secretariat coordinated the implementation of a regional training programme on project preparation in close collaboration with international organizations and initiatives and with the kind assistance of the Governments of Belize, Botswana and Singapore. Financial support for the organization of the workshops was provided by the Governments of Germany and Norway, the European Commission and the CTI.

13. The training programme was initiated by a 'training of trainers' workshop in 2008, followed by three regional workshops for Africa, Latin America and the Caribbean, and Asia and the Pacific in 2009 and 2010.

14. The main objective of the training programme was to enhance the capacity of project developers in developing countries in preparing project proposals that will meet the standards of international financial providers. More specifically, the training programme aimed to:

(a) Improve access to financing for EST projects and programmes to mitigate and/or adapt to climate change;

(b) Support efforts to implement the results of TNAs carried out by developing countries within the UNFCCC process, with a view to scaling up the level of investment for technology transfer to help developing countries address their needs for ESTs;

(c) Strengthen the capacity of project developers in developing countries in preparing project proposals and programmes on ESTs that will meet the standards of international financial providers;

(d) Improve the quality of project proposals from developing countries related to ESTs to mitigate and/or adapt to climate change.

15. The training programme focused on the needs of project developers in developing countries and relevant stakeholders, including international and domestic financial providers. In this context, particular attention was given to the needs of small- and medium-sized investment projects and enterprises rather than large-scale infrastructure projects.

16. Special attention was given to the financial aspects of preparing and presenting projects related to ESTs. The training material prepared for the training programme was structured in such a way that it assisted in the development of a generally accepted project proposal that meets the standards of international financial providers. Particular attention was given to issues related to risks associated with technology development, transfer and diffusion and those related to risk management through financial structuring options that would satisfy the needs of public and/or private investors in the domestic and international capital markets.

17. The training programme concentrated on projects related to ESTs both from the public and from the private sector. Attention was given to the transfer of ESTs to mitigate climate change and to facilitate adaptation to the impacts of climate change.

#### 2. Approach

18. A practical, hands-on approach was followed in developing the training programme, building on available methods, tools and experiences from international organizations and initiatives. The UNFCCC secretariat closely collaborated with UNDP, UNEP, UNIDO,

UNITAR, the Global Environment Facility (GEF), REEEP and the CTI in developing and implementing the training programme.

19. The training programme followed a 'training of trainers' approach. A selected number of trainees from the initial 'training of trainers' workshop were involved as facilitators in the subsequent regional workshops in their respective regions.

20. The training material prepared for the training programme built on the methods and tools provided in the practitioners' guide and those developed by the organizations referred to in paragraph 18 above. The training material was supported by case studies, exercises and software tools to assist in the preparation and presentation of complete and balanced project proposals.

21. The secretariat issued a call for proposals in advance of the workshops inviting participants to submit project proposals. A selected number of these proposals were integrated into the training material and used as a basis for the group exercises which took place at the workshops. The group exercises aimed to improve the quality of the proposals, focusing on their completeness and balance. During the workshop, the proposals were presented to representatives of the financial community in order to assess their completeness, balance and financial feasibility.

22. The workshops were held in English in an interactive format. The number of participants at the workshops was limited to create an appropriate environment for interaction among the trainers and participants and between the participants themselves.

#### C. Training activities

23. The training programme comprised a 'training of trainers' workshop and three regional workshops, as follows:

(a) 'Training of trainers' workshop on preparing technology transfer projects for financing, held in Vienna, Austria, from 29 September to 1 October 2008;

(b) African regional workshop on preparing technology transfer projects for financing, held in Gaborone, Botswana, from 2 to 4 September 2009;

(c) Latin America and the Caribbean regional workshop on preparing technology transfer projects for financing, held in Belize City, Belize, from 5 to 7 May 2010;

(d) Asia and the Pacific regional workshop on preparing technology transfer projects for financing, held in Singapore, from 26 to 28 October 2010.

24. The first day of the three-day workshops focused on the project preparation process in general, covering general principles of project proposal preparation and presentation, an introduction to financing concepts and group exercises facilitated by trainees from the 'training of trainers' workshop. The second day concentrated on the actual preparation of projects, emphasizing proposal analysis, proposal critique, and improvement, presentation and summarization exercises. The final day of the workshops focused on the presentation of project proposals covering a summary of analysed proposals, inputs from finance professionals and a dialogue on the needs of participants and financial institutions, followed by group evaluations and recommendations for improving the format and content of the workshops.

25. The training material prepared for the workshops covered twelve sessions:

(a) Session 1, "Workshop overview", to set forth the workshop agenda, method and schedule and to introduce the challenge being addressed and its urgency;

(b) Session 2, "Method", to introduce the seven-question building block approach to preparing proposals;

(c) Session 3, "Numbers: accounting, finance and scheduling concepts", to establish a common basis for gathering and interpreting proposal data that can be quantified;

(d) Session 4, "Process: fact-finding to base case to finished proposal", aimed at reintroducing the qualitative building block process and the transition from gathering information to treating the information as input to be assembled and analysed;

(e) Session 5, "What and where? Product, service, technology and clients", aimed at identifying the key elements that must be identified, understood and described in a well-prepared and presented proposal, and to set forth the required data needed to accurately present a picture of the market, business, governing and civil society conditions that will underpin the success or failure of a proposal;

(f) Session 6, "Who and how? Team and plan", to set forth what constitutes a reasonably complete and balanced inventory of the skills and human resources required for preparing, presenting and implementing a successful proposal and to convert the information thus far gathered into a clearly articulated plan of action with time and resource boundaries;

(g) Session 7, "Why? Benefits and impacts", to create an inventory of strengths and weaknesses, to assess all benefits and negative impacts requiring attention and to introduce a common framework for classifying proposals;

(h) Session 8, "Building and understanding the base case", to convert what has been learned and assumed into a clearly articulated, quantitatively bound presentation;

(i) Session 9, "What if?' Conducting a sensitivity analysis", aimed at testing the base case, thereby determining its vulnerability to changes in assumptions;

(j) Session 10, "To whom? Targeting and presenting the request", to determine the most likely courses of action to obtain the required resources;

(k) Session 11, "Customization and summarizing", aimed at introducing the requirements of specialized enablers;

(1) Session 12, "Evaluation: critique and suggestions", to revisit the prior eleven sessions in order to critique the methods employed and case examples used, to suggest improvements, to discuss the importance of networking and the possibilities of new forms of collaboration and to reference other tools and techniques.

26. Most of these sessions were supported by group exercises using the proposals submitted by the participants. Some of the sessions were supported by the software tools included in the practitioners' guide. These software tools aim to assist project developers in preparing complete and balanced project proposals and in assessing the financial feasibility of the project.

27. The revised proposals from the working groups were presented to representatives of the financial community on the final day of the workshop to seek their feedback. The representatives of the financial community included representatives of the Asian Development Bank, the Inter-American Development Bank, the GEF, the Private Financing Advisory Network of the CTI, E+Co,<sup>5</sup> UNEP, and the Sustainable Energy Association. These specialized enablers also presented the requirements of financial providers. More

<sup>&</sup>lt;sup>5</sup> E+Co is a public purpose investment company.

information on the training programme, including the training material and presentations, is available on the technology transfer clearing house (TT:CLEAR).<sup>6</sup>

#### III. Experiences, lessons learned and results of the training

#### A. Experiences and lessons learned

#### 1. Organization

#### Targeting the right audience: project developers and resource providers

28. The training programme was primarily aimed at project developers from developing countries familiar with the work on TNAs in their respective countries. The participants who attended the workshops came from different backgrounds, including entrepreneurs, consultants, project developers, government officers, policy advisors and staff of non-governmental organizations (NGOs). In addition, representatives from the financial community were engaged to assess the projects discussed during the workshop from a financial perspective. This dialogue between participants and financial enablers provided insights into the critical elements of proposals from a financing point of view.

#### Limited number of beneficiaries

29. The workshops were attended by a limited number of participants to create an appropriate environment for the training and to stimulate interaction between the trainers and participants and among the participants themselves. As a result, the training programme reached only a limited number of beneficiaries. Participants were encouraged to share the training material and lessons learned from the regional workshops at the national level. In order to reach a wider audience, the training material was also made available on TT:CLEAR.<sup>7</sup>

#### 2. Training programme

#### Practical, hands-on format

30. The practical, hands-on format of the workshop and, in particular, the use of concrete project proposals prepared by the participants themselves as a basis for the group exercises was very much appreciated by the participants. The proponents of the proposals benefited from valuable feedback on the completeness, balance and financial feasibility of their proposals both from fellow participants as well as from representatives from the financial community.

#### Training programme provided for a basic understanding of preparing project proposals

31. The workshops took place over three days, which was considered by many of the participants to be too short a period of time to acquire the necessary knowledge and skills to prepare and present project proposals, in particular regarding the financial concepts and use of the software tools.

<sup>&</sup>lt;sup>6</sup> <http://unfccc.int/ttclear/jsp/Training.jsp>.

<sup>&</sup>lt;sup>7</sup> <http://unfccc.int/ttclear/jsp/Training.jsp>.

#### Addressing specific project preparation needs at the subregional and national level

32. The training programme followed a general approach for the regional workshops. However, specific capacity-building needs for project preparation exist at the subregional and national level in terms of enabling environments, types of projects, sectors and technologies and funding opportunities. In addition, the workshops were provided in English only, which limited the participation of non-English speakers.

#### 3. Project preparation

#### No single formula for preparing successful proposals

33. While no single formula or template exists for preparing a successful proposal, there are common ingredients that most well-prepared proposals contain (see annex I to this report). Understanding and demonstrating a mastery of these common ingredients, combined with a knowledge of the audience, will greatly increase the chance of success. The challenge is to successfully execute each of these points, rather than to over-prepare some answers and ignore others.

34. In addition, the financing of the project requires careful thought and analysis, as there is no single solution that fits all projects. A project proposal targeted at public funding has to satisfy different requirements from a project proposal targeted at private investors. The way in which a project is packaged and presented to potential financial providers is important, but good packaging and presentation alone cannot guarantee that a project will reach financial closure.

#### Address the financial structure at an early stage of project preparation

35. One of the lessons learned from the dialogue between participants and representatives from the financial community was that the opportunities for reaching financial closure of a project are substantially increased by paying attention to the financial structure of the project at an early stage of project preparation, for example, by considering the role of guarantees, grants, subsidized loans and tax incentives. Additional considerations over and above the pure financial return of the project, such as economic, environmental and social benefits, should also be assessed. Projects with a high public benefit might still attract financing inside or outside the private sector.

36. Financing is not an element which can be added at the end of the process, but must be secured and embedded early in the process of project development. This requires a dialogue between key stakeholders in the pre-development phase. Partnership development is therefore an essential element of project preparation.

#### Project preparation proves to be challenging

37. Project preparation proves to be challenging for many project developers in developing countries. Determining bankability – that is, whether financial providers will support a project – is just one in a long series of steps leading to a closed deal. A project's bankability can be determined only after establishing its feasibility in terms of social, economic, financial, technical, environmental and administrative factors. Project development normally involves feasibility and pre-feasibility studies to assess these factors. However, these studies need to be preceded by conceptualization, consensus-building around a project's purpose and initial design, and an action plan. In turn, these steps are often preceded by legal and regulatory reforms in the relevant sector and by policy reforms. Even a simplified list of the standard steps involved in project preparation gives a sense of the complexity of the process (see annex II to this report).

#### Little assistance for 'upstream' preparation

38. Progress in the development of projects in developing countries is often hindered by inadequate 'upstream' preparation. These activities cover actions related to the enabling environment, such as the design of enabling legislation, the design of regulatory approaches, reforming project-relevant institutions, reforming policy, building capacity to support the project and building consensus around a project, as well as actions related to the project definition, such as identifying desired outputs, determining the priority of the project relative to other projects, identifying project champions, preparing an action plan and conducting pre-feasibility studies. Therefore, even if money is available for feasibility studies, the lack of a basic legal and regulatory enabling environment can stall project development. A weak policy environment can have similar effects because of the government's inability to identify, plan, prioritize, or develop an action plan for projects.

#### Lack of support for project preparation

39. The support needed for project preparation exceeds the resources currently available for this activity. A general rule of thumb is that preparation requires the equivalent of 5 per cent of the project's investment costs. This estimate is even higher in cases where 'upstream' preparation has not been carried out.

#### 4. Funding opportunities

#### Lack of awareness about funding opportunities for technology transfer projects

40. There are a multitude of funding sources available for clean technology projects and programmes both from the public and the private sector. Many project developers in developing countries lack information about these potential funding opportunities and, as a result, are not aware of the spectrum of funding opportunities existing at the national, regional and international level.

41. In this context, the importance of establishing networks of partnerships to link together different levels of key players that are currently disconnected was highlighted; for example, facilitating dialogue between project developers and entrepreneurs was considered an important element in attracting financing for technology transfer projects.

#### **B.** Results of the training

42. During the workshops, participants were given the opportunity to evaluate the workshop both in terms of its content and format. In addition, the participants who had submitted the proposals which were used as a basis for the group exercises were approached by the secretariat in order to obtain information about the current status of their project proposals. The results of the evaluation are summarized below.

## 1. Improved quality of project proposals from developing countries related to ESTs to mitigate and/or adapt to climate change

43. The project proposals which were used as a basis for the group exercises benefited from valuable feedback both from the participants and from the representatives of the financial community. Many participants indicated that this feedback had contributed to further improving the quality of their project proposal both in terms of the completeness of the proposal as well as the balance of the information provided in the proposal.

## 2. Strengthened capacity of project developers in developing countries in preparing project proposals and programmes on ESTs

44. Many of the participants indicated that their capacity to prepare and present proposals on ESTs had increased considerably. Table 1 provides an overview of the number of participants who attended the workshops. A total of 131 participants attended the workshops: 110 were from non-Annex I Parties and 21 were representatives from international organizations, NGOs, other organizations and the private sector.

Table 1

| Number    | of    | participants   | who     | attended | the | regional | workshops | on | preparing |
|-----------|-------|----------------|---------|----------|-----|----------|-----------|----|-----------|
| technolog | gy tr | ansfer project | s for f | inancing |     |          |           |    |           |

| Workshop                                          | Participants from<br>non-Annex I<br>Parties | Participants from international<br>organizations, NGOs, other<br>organizations and the private sector | Total |
|---------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------|-------|
| 'Training of trainers' workshop                   | 26                                          | 6                                                                                                     | 32    |
| African regional workshop                         | 28                                          | 4                                                                                                     | 32    |
| Latin America and the Caribbean regional workshop | 25                                          | 6                                                                                                     | 31    |
| Asia and the Pacific regional workshop            | 31                                          | 5                                                                                                     | 36    |
| Total                                             | 110                                         | 21                                                                                                    | 131   |

## **3.** Supporting efforts to implement the results of TNAs carried out by developing countries within the UNFCCC process

45. As referred to in paragraph 6 above, the priority technology needs identified in TNAs can form the basis for a portfolio of EST projects and programmes to facilitate the transfer of, and access to, ESTs and know-how. An analysis by the secretariat of the TNAs currently available revealed that 18 non-Annex I Parties had included a total of 256 project ideas in their TNAs, corresponding to a total budget of about USD 11 billion. However, many of these project ideas need to be converted into detailed project proposals in order to attract potential financial providers.

46. The workshops contributed to supporting efforts to implement the results of TNAs carried out by developing countries within the UNFCCC process. The project proposals submitted for the workshops were identified from TNAs and other sources. The quality of these project proposals was improved over the course of the workshop and guidance was provided from representatives of the financial community on possible funding opportunities. In addition, the training material prepared for the workshops also provided further guidance on converting the project ideas identified from TNAs into project proposals.

## 4. Improved access to financing for EST projects and programmes to mitigate and/or adapt to climate change

47. The training programme contributed to improving access to financing for EST projects. Many of the participants indicated that their level of awareness of funding opportunities had increased. In addition, the project proponents benefited from valuable feedback on their proposals both from fellow participants as well as from the representatives from the financial community, which allowed them to improve the quality of their proposals to make them more attractive to potential financial providers. The

evaluation session at the end of the workshop revealed that some of these proposals had obtained funding for their implementation from various sources (see annex III).

#### **IV.** Possible follow up actions

48. The following provides an overview of possible follow up actions which emerged from the workshops, taking into account suggestions by participants of the regional training workshops:

(a) **On-line training programme on project preparation:** coordinate the implementation of a pilot on-line training course on preparing technology transfer projects for financing with the participation of relevant international organizations and initiatives. This on-line training course could be combined with face-to-face training to ensure optimal effectiveness and to increase the impact of the training programme;

(b) **Finance training for non-financial professionals:** provide a follow-up training programme on financing technology transfer projects by addressing specific topics at a more in-depth level, such as how to access multiple sources of funding and other resources and how to leverage public and private sector finance for technology transfer projects and programmes. This training could be offered in a variety of formats (hands-on, offline and online via the Internet), and could be packaged with exercises and multiple instructors;

(c) Standardization and translation of the training materials: parts of the introductory section of the training workshop (Session 2: "Method" – the seven-question approach to preparing proposals) could be packaged, translated and shared with a wider audience, including regional trainers, to scale up the number of beneficiaries of the training programme;

(d) 'Training of trainers' follow-up and customization to specific regions and topics: it would be feasible for regional workshops to be organized on narrower topics than the previous ones. This could also be offered in a hands-on format via workshops as well as through distance learning following a 'training of trainers' approach;

(e) Wider, more diverse quality-controlled case study accumulation and sharing: there is a demand for a greater number of case studies (including more diverse examples and adaptation cases) demonstrating the methods and approaches that work and why, especially public–private partnerships. This activity could build on the work currently undertaken by the secretariat and the EGTT on the promotion of success stories in relation to financing technology transfer projects in non-Annex I Parties;

(f) **Proposal refinement and matchmaking:** there is a demand for (i) hands-on interaction and mentoring in proposal development, and (ii) matchmaking with sources of finance and non-financial resources. While these are different activities, combining them in online, offline and hands-on workshops could be an option. A 'workshop' would be differentiated from information-, knowledge- and case study sharing because it must exhibit three characteristics: tools (templates, etc.) and materials (specific proposal characteristics) would be provided and something would be built (a specific document or output presented to resource providers);

(g) Assistance for 'upstream' preparation: the scope of the training could be broadened to include training on the preparation of national strategies and action plans on the development and transfer of technologies. The strategy and the action plan could be presented as an integral part of a country's national climate change strategy.

#### Annex I

#### **Checklist for preparing project proposals**

| What?                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------|
| Product or service to be offered                                                                                             |
| Technology to deliver the product or service                                                                                 |
| Client group to be provided with the product or service                                                                      |
| Appropriateness of the product, service and technology to the client group                                                   |
| Resources being requested                                                                                                    |
| Where?                                                                                                                       |
| Physical location and characteristics of the place<br>where the proposal will occur                                          |
| Social, economic, demographic, cultural, income and wealth characteristics                                                   |
| Regulatory framework and business climate                                                                                    |
| <u>Who?</u>                                                                                                                  |
| Champion                                                                                                                     |
| Owners and sponsors                                                                                                          |
| Governance                                                                                                                   |
| Employees and staff                                                                                                          |
| Contractors and suppliers                                                                                                    |
| Approval bodies                                                                                                              |
| Stakeholders                                                                                                                 |
| Advisors                                                                                                                     |
| Organizational structure                                                                                                     |
| How?                                                                                                                         |
| Current status                                                                                                               |
| Steps and schedule involved in the completion of planning                                                                    |
| Steps from completion of planning to final authorization                                                                     |
| Steps from final authorization to beginning of                                                                               |
| construction (or roll-out of pre-operation stages)                                                                           |
| Steps from beginning of construction/pre-operation<br>stages to completion of construction and<br>commencement of operations |
| Operations, maintenance, management, accounting and                                                                          |
| reporting plans                                                                                                              |
| Monitoring and evaluation plan                                                                                               |
| Key contract relationships                                                                                                   |
| Financial structure                                                                                                          |
| Why?                                                                                                                         |
| Financial expectations                                                                                                       |
| Social and developmental impacts                                                                                             |
| Environmental benefits                                                                                                       |
| Growth potential                                                                                                             |
| Replicability potential                                                                                                      |
| Other benefits                                                                                                               |
| Other benefits                                                                                                               |

#### Base case

Time, cost, other resources and key events needed to complete planning, to go from the completed planning stage to the beginning of construction or pre-operation phase and to carry out the construction or preoperation phase

Total cost until start-up and financial structure:

- Grants
- In-kind services and property
- Loans
- Investment
- Operating revenues
- Operating costs
- Cash flow from operations
- Other revenues, such as carbon benefits
- Project or proposal rate of return
- Payments of interest to lenders and others

Depreciation

- Taxes Payment of loan principal
- Debt service coverage
- Remaining cash flow
- Return on equity to investors
- What if?
- Schedule disruptions Cost and revenue variances Output performance changes Key person changes Changes in law or regulation Owner, lender, investor or sponsor changes

Staffing disruptions

#### To whom?

Customers: households, businesses, communities and specialized programmes (such as carbon funds) that wish to buy all or part of the product or service being offered

Donors: charitable institutions, government-sponsored programmes, multilateral organizations and specialized programmes and organizations

Lenders: some charitable organizations, governmentsponsored development institutions and programmes, specialized programmes, socially responsible funds, commercial banks and other financial institutions

Investors: partners, suppliers, contractors, government-sponsored investment companies, specialized programmes and funds, and venture capitalists

### Annex II

### Phases in project development

#### Table 2 Phases and actions involved in project development

| Phase                   | Action                                                            |  |  |  |  |
|-------------------------|-------------------------------------------------------------------|--|--|--|--|
| 1. Enabling             | Designing enabling legislation                                    |  |  |  |  |
| environment             | Designing regulatory approaches                                   |  |  |  |  |
|                         | Reforming project-relevant institutions                           |  |  |  |  |
|                         | Reforming policy                                                  |  |  |  |  |
|                         | Building capacity to support the project                          |  |  |  |  |
|                         | Building consensus around the project                             |  |  |  |  |
| 2. Project definition   | Identifying desired outputs                                       |  |  |  |  |
|                         | Determining the priority of the project relative to others        |  |  |  |  |
|                         | Identifying project champions                                     |  |  |  |  |
|                         | Preparing action plans (including terms of reference)             |  |  |  |  |
|                         | Conducting pre-feasibility studies                                |  |  |  |  |
| 3. Project feasibility  | Performing financial modelling                                    |  |  |  |  |
|                         | Conducting economic, social, technical, and environmental studies |  |  |  |  |
| 4. Project structuring  | Assessing public and private options                              |  |  |  |  |
|                         | Structuring project finance                                       |  |  |  |  |
|                         | Designing legal entities                                          |  |  |  |  |
| 5. Transaction support  | Designing and conducting a bid process and drafting contracts     |  |  |  |  |
|                         | Negotiating the financial and legal terms                         |  |  |  |  |
| 6. Post-signing support | Finalizing post-signing financial arrangements                    |  |  |  |  |
|                         | Conducting scheduled tariff reviews                               |  |  |  |  |
|                         | Renegotiating or refinancing the project                          |  |  |  |  |

### Annex III

### **Project summaries**

## Table 3Summary of the proposed projects

| Country               | Project name                                                                           | Investment<br>(USD million) | Project status                                                        |
|-----------------------|----------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------|
| Mozambique            | Ethanol substitution for petrol                                                        | 4.15                        | Project in planning stage                                             |
| Egypt                 | Using agricultural<br>waste for electricity<br>production                              | 1.38                        | NA                                                                    |
| Kenya                 | Using sugar factories'<br>surplus of bagasse for<br>cogeneration                       | 10                          | NA                                                                    |
| China                 | Industrial wastewater treatment                                                        | 1.1                         | Project not feasible from technical point of view                     |
| Ghana                 | Development of pilot<br>mini-hydro schemes                                             | 3.425                       | Project expected to be<br>implemented in<br>December 2010             |
| Egypt                 | Biodiesel production<br>from jatropha curcas<br>seed                                   | 3                           | Project in planning stage                                             |
| Lesotho               | Improved stoves                                                                        | 2.6                         | Project in planning stage                                             |
| Burkina Faso          | Introduction of solar<br>photovoltaic pumping<br>into small villages for<br>irrigation | 2.96                        | Project in planning stage                                             |
| Kenya                 | Harnessing floodwater<br>for small-scale<br>irrigation for<br>agricultural production  | 3                           | Project in planning stage                                             |
| Argentina             | Using forest residues<br>for renewable energy<br>in Argentina                          | 15                          | NA                                                                    |
| Belize                | Flaring of landfill gases                                                              | 14.789                      | Project in planning stage                                             |
| Dominican<br>Republic | Introduction of wave<br>energy converter<br>technology                                 | 0.3                         | Project has been<br>approved and is awaiting<br>the transfer of funds |
| Honduras              | Environmentally<br>improved small-scale<br>loofah gourd<br>processing                  | 0.177                       | Project in planning stage                                             |

| Country                          | Project name                                                                                                                   | Investment<br>(USD million) | Project status            |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|
| Saint Vincent and the Grenadines | Photovoltaic project<br>for Saint Vincent and<br>the Grenadines                                                                | 0.05                        | Project in planning stage |
| Tajikistan                       | Transition of boiler<br>plants in Dushanbe<br>from mazut and solid<br>fuel into ecologically<br>clean water-coal fuel          | 1.071                       | NA                        |
| Armenia                          | Introduction of water-<br>saving technologies in<br>selected pilot regions<br>of Armenia with a<br>focus on drip<br>irrigation | 1.950                       | NA                        |
| Bangladesh                       | Enhancing the brick-<br>burning efficiency of<br>brick kilns in<br>Bangladesh                                                  | 2.0                         | NA                        |
| Viet Nam                         | Biomass electricity<br>generation by the Duy<br>Phat Electric Joint<br>Stock Company                                           | 21.6                        | NA                        |
| Philippines                      | Application of<br>wastewater collection<br>and treatment<br>technology at the<br>municipal level                               | 0.71                        | NA                        |

*Sources*: The project summaries are integrated in the training material available at <http://unfccc.int/ttclear/jsp/Training.jsp>.

*Notes*: The status of the project proposals from countries in the Asia-Pacific region was not assessed as the Asia and the Pacific regional workshop was held only recently.

*Abbreviation*: NA = not available.