



**UNITED  
NATIONS**



**Framework Convention  
on Climate Change**

Distr.  
GENERAL

FCCC/SBSTA/2004/11  
3 November 2004

Original: ENGLISH

---

**SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE**

**Twenty-first session**

**Buenos Aires, 6–14 December 2004**

**Item 6 of the provisional agenda**

**Development and transfer of technologies**

**Report on the UNFCCC workshop on innovative options for financing the  
development and transfer of technologies**

**Note by the secretariat\***

*Summary*

In response to a request by the Subsidiary Body for Scientific and Technological Advice, at its nineteenth session, the secretariat, in consultation with the Expert Group on Technology Transfer, organized a workshop on innovative options for financing the development and transfer of technologies from 27 to 29 September 2004 in Montreal, Canada.

Participants at the workshop exchanged views on definitions and scope of innovative financing, and discussed various existing mechanisms for financing the development and transfer of technologies within and outside the UNFCCC process, and how those might be relevant to Article 4.5 of the Convention. Participants suggested possible areas where further work is needed, and specific activities that could be initiated within the UNFCCC process.

---

\* The document was submitted after the deadline because the workshop was held late in September.

## CONTENTS

		<i>Paragraphs</i>	<i>Page</i>
I.	INTRODUCTION.....	1–7	3
	A. Mandate.....	1–4	3
	B. Scope of the note.....	5–6	3
	C. Possible action by the Subsidiary Body for Scientific and Technological Advice .....	7	3
II.	PROCEEDINGS .....	8–16	4
III.	SUMMARY OF THE DISCUSSIONS.....	17–71	5
	A. Background .....	17–22	5
	B. General perspective from the financial sector .....	23–31	6
	C. Current practice and lessons learned .....	32–39	8
	D. Ongoing initiatives for innovative financing .....	40–47	9
	E. Highlights and key findings from the discussions .....	48–65	10
	F. Outcome and possible ways forward .....	66–71	12
IV.	CONCLUSIONS .....	72	13

## **I. Introduction**

### **A. Mandate**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its nineteenth session, endorsed the programme of work of the Expert Group on Technology Transfer (EGTT) for 2004. This programme of work includes a new area of work called innovative financing (FCCC/SBSTA/2003/15, Annex I).
2. The two activities envisaged for the innovative financing part of the EGTT programme of work for 2004 were to prepare terms of reference for a workshop on innovative options for financing the development and transfer of technologies and to organize such a workshop before SBSTA 21.
3. The SBSTA, at the same session, requested the secretariat to organize a workshop on innovative options for financing the development and transfer of technologies, taking into consideration terms of reference recommended by the EGTT, and to report on the findings of the workshop to the SBSTA at its twenty-first session.
4. The SBSTA, at its twentieth session, endorsed the recommendation of the EGTT that the workshop on innovative options for financing the development and transfer of technologies should have a practical focus, utilizing to the greatest extent possible actual innovative financing situations and experiences. The workshop should also be built around a series of case studies encompassing the experience of a range of stakeholders and stages of technology and market development, including assessments of the ability of various innovative options for financing arrangements to meet the needs identified during technology needs assessments. It also noted with appreciation the offer by the Government of Canada to host the workshop in September 2004.

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

5. The UNFCCC workshop on innovative options for financing the development and transfer of technologies was held in Montreal, Canada, from 27 to 29 September 2004. This report contains a summary of the 16 workshop presentations and both the panel and general discussions. All presentations are available on TT:CLEAR.<sup>1</sup>
6. The report was prepared by the secretariat in consultation with the EGTT. It takes into account presentations by country-nominated representatives and experts, including many from private sector financing institutions, and discussions at the workshop. Ideas on possible further activities on innovative options for financing the development and transfer of technologies, suggested during the workshop, can serve as input to further discussions and considerations by the SBSTA at its twenty-first session.

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

7. The SBSTA may wish to take note of the information contained in this document and, where necessary:
  - (a) Seek technical advice from the EGTT on possible next steps for the promotion of innovative options for financing the development and transfer of technologies under the Convention;

---

<sup>1</sup> <<http://ttclear.unfccc.int/>>.

- (b) Provide further guidance to the secretariat with regard to its efforts to facilitate the work of the EGTT and the Parties for the promotion of innovative options for financing the development and transfer of technologies.

## II. Proceedings

8. The workshop was organized by the secretariat in consultation with the EGTT, and with the kind assistance of Natural Resources Canada. Financial support for the organization of the workshop was provided by the Governments of Finland and the United States of America, the European Commission and the Climate Technology Initiative (CTI).

9. The workshop was attended by 58 participants: 18 from non-Annex I Parties representing Africa (6), Asia and the Pacific (5), Latin America and the Caribbean (6) and small island States (1); 19 from Annex I Parties; representatives from six international organizations and bodies; four representatives from non-governmental organizations and other organizations; and 11 representatives from the private sector. Mr. Taulealeausumai Laavasa Malua, Chair of the Least Developed Countries Expert Group (LEG), was also invited to participate in the workshop.

10. The expected outcomes of the workshop were:

- (a) To create a better understanding among workshop participants representing governments, intergovernmental organizations (IGOs), non-governmental organizations (NGOs) and the private sector on the subject of innovative financing in order to facilitate the development and transfer of environmentally sound technologies under the UNFCCC
- (b) To share experiences and information, on the basis of a number of case studies, on good practices in creating favourable financial conditions for the development and transfer of technologies and on innovative financing options that have been recently developed in different sectors, including mitigation and adaptation
- (c) To narrow the differences and generate innovative ideas for financing technology transfer activities under the Convention and to draw conclusions for further discussion by the EGTT and the SBSTA on possible next steps on this subject.

11. The agenda of the workshop<sup>2</sup> was designed, in consultation with the Chair of the EGTT, to address issues relating to innovative options for financing the development and transfer of technologies. A background paper was prepared and made available by the secretariat to participants. This was the first forum within the UNFCCC process to discuss innovative options for financing the development and transfer of technology.

12. The workshop was chaired by Ms. Margaret Martin, Chair of the EGTT. In welcoming the participants, Ms. Martin emphasized the importance of the workshop in facilitating the dialogue between governments and the private sector, in particular the financial community, on issues relating to financing and technology transfer under the UNFCCC process. She stressed that the workshop was designed to encourage an interactive and participatory discussion by all participants. She placed special emphasis on the word 'innovative', with respect to innovative options for financing, as was defined in the background paper. She also acknowledged that both developing and developed countries have challenges to overcome in supporting appropriate research and development (R&D), and seeing initiatives through to commercialization and ultimately to market. Ms. Martin also acknowledged the excellent support provided by the host government, her EGTT colleagues and the secretariat for the organization of this

---

<sup>2</sup> The workshop agenda is available at <http://ttclear.unfccc.int/>.

workshop. Finally, to meet the common objectives in addressing some of the challenges and realities of financing technology transfer, she noted that it was important to go beyond the words to the deeds.

13. Mr. Janos Pasztor, Coordinator, Sustainable Development Programme, UNFCCC secretariat, stated that technology transfer is one of the key components in implementing the Convention. He noted a decline in official development assistance in recent years. In that context, new and innovative financing options are even more important for a successful transfer of technologies.

14. Mr. Elmer Holt, Vice Chair of CTI, outlined the work of the CTI that provides on a multilateral basis support for the UNFCCC's technology objectives. He expressed appreciation to the CTI member countries for their support. He also stressed that there was not enough public money to make a meaningful impact on the environmentally sound technology needs of developing countries and countries with economies in transition; therefore encouraging the greater access to private financial sources, such as through this workshop, was an important step in the technology transfer process. Mr. Holt further noted that one of the key areas where CTI has directed its resources is towards building indigenous capacity in areas which would facilitate technology transfer, through a variety of seminars, training courses, and workshops, including providing financial and in-kind support for this workshop.

15. Ms. Margaret McCuaig-Johnston, General Director, Economic Development and Corporate Finance, Department of Finance, and Assistant Deputy Minister, Energy Technology and Programs, Natural Resources Canada, delivered the keynote address at the opening session of the workshop. She indicated that this workshop marked the start of a process designed to build a solid foundation to support innovative options for financing technology transfer under the UNFCCC using the building blocks of enabling environments, technology needs assessments, technology information and capacity-building. She reminded the audience that existing, readily available technologies should not be overlooked.

16. Ms. McCuaig-Johnston also highlighted major EGTT achievements to date. She also stressed the importance of synergy between existing institutions and the need to act quickly in developing countries before they are "locked into" decades of carbon intensive energy infrastructure investments. She also mentioned the link between adaptation and mitigation within the climate change context. Highlighting the challenges in bringing new technologies to the market, she noted the role commercial demonstration projects could play. In this context, she stressed the critical need for international cooperation and private sector partnerships. Finally, she provided highlights of some Canadian climate change technology actions to date.

### **III. Summary of the discussions**

#### **A. Background**

17. Ms. Wanna Tanunchaiwatana, UNFCCC secretariat, gave an introductory presentation on the background and context of technology transfer activities under the UNFCCC process, focusing on key elements of the technology transfer framework as contained in the annex to decision 4/CP.7, as well as on mandates and guidance from the SBSTA regarding the workshop. She also mentioned that many developing country Parties are currently undertaking their technology needs assessments, and that this workshop would help identify opportunities for financing technology needs identified by these studies.

18. Mr. Daniele Violetti, UNFCCC secretariat, presented an overview on recent trends in financial flows. The limited involvement of the private sector in financing climate-related technology was highlighted together with the need to bridge the gap between the availability of public and private sector financing. The challenges facing the public sector were identified as providing adequate funding, creating favourable enabling environments and raising awareness.

19. Mr. Paul van Aalst, UNFCCC consultant, presented the background paper prepared for this workshop. This paper covers some key concepts regarding the financing of technology transfer, which can be used as ingredients when creating particular financing menus. It concludes that many of these concepts can be applied in the financing of development and transfer of technologies relating to climate change, thus creating new opportunities.

20. Some financing instruments and models already applied in conventional technology transfer appear to offer additional financing opportunities when slightly altered to finance development and transfer of technologies under the UNFCCC. How this can be done, and has been done, is illustrated by a number of financing models and mechanisms relating to climate change. Finally, a few case studies demonstrate how a combination of mechanisms can be applied.

21. In its conclusion, the background paper provides three key guidelines to improve access to financing for technology transfer relating to climate change:

- (a) Look for added value for particular stakeholders and specify and quantify, as much as possible, the benefits and revenues for stakeholders
- (b) Link the 'climate change' theme to other themes (e.g. poverty alleviation) to improve the economic or financial sustainability of a project
- (c) Enact an effective policy-framework, which is communicated properly, is stable and sustainable to reflect financing horizons, and is legally established with binding targets that reflect the long life of capital intensive projects.

22. The background paper was well received by workshop participants. It served as a good basis, and generated several ideas, for further discussions by workshop participants. Many participants viewed this paper as a very useful instrument and suggested an expansion of its scope to include the needs and issues emerging from the workshop.

### **B. General perspective from the financial sector**

23. This session was chaired by Mr. Rawlestone Moore, EGTT member. The first presentation, on renewable energy and energy efficiency strategies, was presented by Mr. George Sorenson, FE Clean Energy Group, United States of America. Mr. Sorenson suggested three essential elements for financing project:

- (a) National policies that support energy efficiency initiatives
- (b) Financing "enablers", including some financing by local or government institutions and financial guarantors
- (c) An appropriate energy regulation regime including tariff guidelines and a clear and efficient licensing process for new projects.

24. Mr. Sorenson also presented a case study from Hungary where an inefficient heating/cooling plant with existing customers was bought and efficiency improvements were made, and the energy savings funded the capital required to make the improvements.

25. Mr. Charles W. Donovan, CAT Alliance Ltd UK, presented financial options for the private sector. He explained that the private sector financing institutions would require a risk assessment to be carried out. The risks to be looked at are, inter alia, country type risks, project type risks and national types of risk, such as the exchange rate, political situation, environmental compliance technology type,

operational activities, construction, counterparty credit and commodity price. As an example of mitigating risks, he provided detailed information on the credit risk management process. He also noted that because of the relatively small size of renewable energy investments compared to conventional energy projects, transaction costs and credits risks are currently perceived to be relatively higher. Government action could address this issue.

26. Mr. Martin Whittaker, Swiss RE Financial Services, talked about the “Footprint Neutral”, an initiative being developed by his company in partnership with Nature Conservancy Conservation International (NCCI), and the United Nations Development Programme (UNDP). The aim of this initiative is to create a voluntary scheme allowing companies to buy into projects that will offset their carbon emissions and other environmental impacts. Another project he discussed was the Swiss RE European Clean Energy Fund, focused on Central and Eastern Europe, which aims at generating and selling carbon offsets to boost investment returns.

27. The main topic of the panel discussion was risk management and the essential role of national governments. Examples of risks and investment barriers were given as well as actions to be taken by governments to mitigate risks (e.g. formulating their priority areas, setting out framework conditions for transactions, shaping the financial flows). Through risk sharing, foreign investment will increase, resulting in a stimulation of local private sector participation.

28. Governments also need to create the proper enabling environments as investment capital “like electricity, follows the path of least resistance”. Another private sector participant reported that project bundling would help to reduce risk through diversification; for example, 10 landfill gas projects collectively have less risk of failure than one. One participant raised concerns that banks were willing to fund a range of projects, but that in some cases insurers were not willing to provide the necessary performance guarantees on the investment because of a lack of certainty on the returns, particularly in terms of the value of the carbon that might be offset by the project, and the risk involved.

29. One private sector participant responded that in some cases carbon risk could not be quantified; an example is the methane content in landfills, which varies over time. Another private sector participant responded that insurers did not have the underwriting capacity and expertise in some areas, but would respond should a critical mass of demand for insurance develop in a particular area, such as geothermal or wind power.

30. If the carbon risk cannot be quantified, the value cannot be one of the financial components of the project. Under such conditions, carbon is just a sweetener if the project is otherwise a financial success.

31. In addition, the element of information exchange was touched upon. It was noted that dissemination of success stories could help to enhance capacity-building for project development and implementation. Technology needs assessments conducted in many countries could be an effective vehicle to meet the needs identified therein. This could result in financially viable projects in which the international finance sector would be willing to invest. Several participants noted the different understanding, “languages” and concepts being used by representatives of governments and the private sector, and said ongoing contact and communication between the two groups would be extremely valuable.

## **C. Current practice and lessons learned**

### **1. Part I: Development finance in practice**

32. Mr. Elmer Holt, EGTT member and chair of the session, introduced the topic by observing that, where risk is high and returns are ill defined, little can be expected. Meanwhile, at the other end of the scale, projects offering low risks and predictable returns are generating a lot of interest and activities. The focus, therefore, should be on those projects that fall in between these extremes.

33. Mr. Peter Storey, HERA International Group, discussed the project development cycle and stressed the need for thorough pre-development or pre-feasibility studies. As a possible solution to share the risk that comes with pre-development activities of projects, he suggested that interested parties should form a consortium. He recommended, based on experiences in Africa, an integrated approach to projects that engages both public and private sectors. In addition, he emphasized the role of governments in creating a stable legislative and regulatory environment.

34. Mr. Peter Roszbach, Impax Capital Ltd, highlighted lessons learned through the Patient Capital Initiative (PCI) sponsored by the European Commission in the context of the Johannesburg Renewable Energy Coalition. He observed that prerequisites for developing renewable energy activities include appropriate government regulations, but that the availability of project debt, and positive returns from the project, are currently insufficient to attract foreign investors, which have generally become very risk averse. The aim of the PCI was to assess the feasibility of creating a fund-based public-private investment vehicle to deliver affordable risk capital in support of renewable energy projects and joint venture enterprises. The emphasis was on creating a "one-stop" shop to reduce the transaction costs both for investors and entrepreneurs or project developers while also creating a mechanism for increasing the leverage potential of public funds.

35. Mr. Patrick D'Addario, Fiorello H. LaGuardia Foundation, presented the initiative called MOSAICO which aims at catalysing human, institutional and financial resources to support the development of locally defined and managed enterprises engaging in sustainable energy activities. He noted that participation of local resources encompassing, inter alia, financial institutes is essential for increasing the success rate of projects. He described projects that were implemented by the Foundation in Brazil, China and India.

36. As an example of public-private partnership, the African Rural Energy Enterprise Development (AREED) was presented by Mr. Youba Sokona of the Sahara and Sahel Observatory. He remarked that no one solution fits all circumstances and illustrated this with some examples of projects in AREED's African partner countries. He stressed the need for a cooperative approach focused on linking key stakeholders of all relevant sectors and institutions both national and international. He hoped that the current discussion would shift from project portfolio to systems of self-supporting products and services.

### **2. Part II: Barriers and lessons learned**

37. In this session, two case studies on barriers and lessons learned from different regions were presented.

38. Mr. William Kojo Agyemang-Bonsu of Ghana's Environmental Protection Agency explained that Ghana had conducted a technology needs assessment (TNA) encompassing identification of barriers and suitable actions to remove them, stakeholder assessment, etc. A case study in his country was briefly discussed. In addition to his presentation, he also stated that technology transfer is not based on one formula but on an innovative process, including learning by doing.



39. Mr. Ji Zou, Renmin University of China, talked about the high cost of implementing technology transfer and the weak purchasing power in many developing countries. He suggested a solution to attract funds – to emphasize the ancillary benefits that come with technology transfer such as poverty alleviation, local environmental improvement, job creation, provision of improved infrastructures and capacity-building. He also presented a technology transfer case study where different financial resources were utilized and where climate change and desertification goals were pursued.

#### **D. Ongoing initiatives for innovative financing**

40. This session, which was chaired by Mr. William Kojo Agyemang-Bonsu, EGTT member, began with three presentations from financial sector representatives focusing on venture capital, emerging markets, and export credit agencies (ECAs).

41. Mr. Nicholas Parker, Cleantech Venture Network LLC, made the observation that many renewable energy projects are being planned and implemented in China and other big economies in developing countries, following the trend in Annex I countries. He stressed the important role of the private sector in this process. Smaller developing countries, he said, would need more capacity-building and training before they can fully engage.

42. Mr. Frank Joshua, Climate Investment Partnership, noted, as some other speakers did, that the country-specific risk-adjusted rate of return was an important driver for the market. He also discussed the issue of monetizing carbon credits, noting that the market and prices need to be more stable and certain for carbon considerations to have impact on decisions about project viability. He suggested “bundling” smaller projects into larger ones and identifying potential replication opportunities, because investors are more interested in large projects. He also noted the need for capacity-building for many developing countries in the area of project preparation and development.

43. Mr. John Balint, International Financial Consulting Ltd, discussed the benefits of ECAs and the potential role they can have for renewable energy and energy efficiency projects, but he also stated that clear instructions on how this should be implemented – to be given by both developed and developing country governments, as well as other shareholders – is lacking at present. ECAs also have a role to play in reducing project risks, making them more financially viable.

44. In the general discussion that followed, many participants expressed general satisfaction with the discussion that was taking place at the workshop and encouraged continuing the dialogue between governments and the financial sector on this subject matter. Participants indicated that it was critical to establish a common “language” for such dialogue.

45. Also mentioned was the need to integrate discussions on technology transfer financing with the clean development mechanism (CDM). The CDM process and the complex issue of additionality were cited as a barrier for the private sector. Some participants suggested that the process needs to be simplified. However, some participants pointed out that CDM was just one of the possible mechanisms and should not be seen as a major means for the implementation of Article 4.5 of the Convention.

46. During this discussion, several issues were suggested as appropriate actions that governments should consider:

- (a) Reduce risks by funding the development of an effective risk assessment model that the private sector could then apply to projects
- (b) Put in place appropriate regulatory frameworks

- (c) Factor in the actual costs of fossil fuel use, such as the impact of pollution on human health and the health care system.

47. Participants indicated that both mitigation and adaptation activities are crucial to developing countries, and it was important to link energy and climate change with sustainable development. A suggestion was made to have a separate event on financing adaptation activities.

## **E. Highlights and key findings from the discussions**

### **1. Capacity-building for project development**

48. Capacity-building for project development is a key component needed to access new markets for investment financing. There are sufficient funds for good projects, but project proposals are lacking. Many projects are poorly prepared and do not meet international standards. As a result, access to project debt and equity is limited. Therefore, project development tools, such as software models, should be made available to project developers in developing countries.

49. Project developers, as well as in-country financial institutions, could be better trained to understand project development and financing concepts. Thus, capacity needs to be built to remove barriers and facilitate the mobilization of domestic capital.

50. In developing sound projects the following issues should be taken into account:

- (a) Energy services can be delivered on a sustainable basis by small/mid-sized local enterprise and multiple partnerships. Projects which do not have local engagement are less likely to survive in the long term. Local partnerships at several levels, including those between national and sub-national governments, investors, donors, NGOs, service providers, entrepreneurs and, most importantly, end users, are essential
- (b) Technology needs assessments continue to be an important means of engaging the relevant stakeholders, including the financial community, and of identifying strategic partnerships early in the project development process.

51. Defining a project in too limited a way can under-sell the advantages of the project. Recognition of the sustainable element of a project can be a deal maker, so project developers should look for project collaborations to link climate change benefits with development issues such as water management and poverty alleviation.

52. Developing country participants raised the issue of “bundling” small projects. This can reduce overall project costs by increasing efficiency and can lead to development of expertise that can eventually lower transaction costs.

### **2. Risk and risk management**

53. The risk associated with a project is a key element for securing financing. Insurance companies are paying greater attention to climate change and variability given the increased risk of extreme weather events. By providing the necessary enabling environment, investment risks could be reduced. Public authorities can help cover some aspects of risk. For instance, credit risk mitigation is an area where government, export credit agencies and multilateral institutions can make a difference. These organizations might also provide support for development of risk assessment models.

54. Overall risk perceptions need to be improved as many investors view renewable energy and GHG projects as compounding risk – combining risky sectors with risky markets with a risky commodity. The

availability of risk assessment tools plays an important role by measuring the risks in a consistent, repeatable and objective manner.

55. A sound enabling environment can reduce risks and therefore can stimulate the number of projects being implemented and build momentum. The more clean energy projects that are financed, the more positive signals are sent to the financial community that such projects are worth doing. Furthermore, as the number of projects increases, the more performance and reliability data become available, allowing, for example, insurers to quantify risks and provide adequate insurance products.

### 3. Financial engineering

56. Although some of the financing options discussed at the workshop were not necessarily innovative for the financial world, they are new in the context of the UNFCCC.

57. Currently, financial resources from the public sector are limited and may not be sufficient to making a meaningful impact in addressing global climate change. Therefore, mainstreaming private investment in technology development and transfer is considered a possible viable option in advancing technology transfer activities under the Convention. Foreign investment offers many advantages such as capital and technology infusion, risk sharing, access to international markets, and international exposure and capacity-building opportunities for local professionals through adherence to international standards, processes and business practices.

58. Strong market interest exists in emerging markets in developing countries, but the identification of bundling opportunities to reduce transaction costs and reduce risk is lacking. In addition, the expansion of knowledge of “climate” opportunities within the investment community could increase the access to large-scale private sector debt financing, thereby moving the process forward.

59. Several “new” investment instruments and institutes can play an important role in technology transfer. For example, the possible role of ECAs could be further explored in the UNFCCC process, as well as the innovative approaches brought about by the CDM and joint implementation (JI).

60. Seed financing (the initial equity capital used to start a new venture or business) provided by donors has been indicated as an important instrument to stimulate technology transfer. Blending high and low cost capital sources can be an effective instrument, if elements of the project that can be of interest to different financing sources are identified.

61. Options to attract financing for technology transfer projects include:

- (a) Mobilizing local resources, including natural, human, institutional and financial
- (b) Establishing networks of partnerships to link together different levels of key players presently disconnected; e.g. get development people talking to entrepreneurs. The use of an independent and objective developer can improve communication and arbitrate disputes
- (c) Promoting technical invention, institutional innovation, market creation, and concept/awareness revolution.

62. Financing is not a “bolt-on” element, which can be added at the end of a process, but must be secured and embedded early in the process of project development. This needs a dialogue between key stakeholders in the pre-development phase. Partnership development, including public–private partnerships, is therefore an essential element. In addition, financing requires careful thought and analysis as there is no one solution that fits all projects.

#### 4. Role of renewable energy

63. Emerging markets offer major opportunities for renewable energy investments. There are now examples of how governments can guide the paths of renewable energy technology development and associated financing. However, until the externalities associated with the use of fossil fuels are incorporated into their price, renewable energy will be less competitive and difficult to finance.

#### 5. Role of governments

64. Governments should try to enhance enabling environments for technology transfer by improving the legal systems, providing favourable conditions for the development and transfer of ESTs, providing income exemption in priority technology areas, and simplifying approval processes. Moreover, in markets governments want to promote, they must foster “technology enablers”, including through the appropriate regulatory regime and the availability of non-recourse financing. In addition, they should develop tariff guidelines that provide for appropriate pricing for renewable energy/electricity. Governments can also complete thorough technology needs assessments to identify the more urgent needs. It is also clear that local and regional governments play a major role in financing.

#### 6. Information

65. Information and accessibility to information remains a major barrier. Guidelines, toolkits and/or handbooks on innovative financing of projects could contribute to improving the quality of projects. Also information on financing sources, project developers and tools for the pre-development phase is essential, as is information on risk and risk management. For insurers, there is a lack of a critical mass of good quality historical performance and reliability data regarding mitigation technology. Governments can help to generate and disseminate these data.

### **F. Outcome and possible ways forward**

66. The final session focused on outcomes and possible ways forward, with a round-table discussion moderated by Mr. Bernard Mazijn, EGTT member. The progress in participants’ understanding of financing was recognized and it was also noted that public and private sector representatives had started to speak a “common language”.

67. Some participants noted that although progress was made in creating a common understanding among the various stakeholders, several differences still exist. It was also suggested that an ongoing dialogue of this type is needed and that a possible next meeting could be held in a developing country and include private sector experts from developing countries. Some participants suggested a more focused discussion on technologies for adaptation.

68. Some participants stressed that Article 4.5 of the Convention is at the basis of this process and this should always be recognized. Other participants encouraged broader interpretation of Article 4.5 in order to move beyond “the climate change cluster” and consider wider sustainable development benefits. It was mentioned that an option to move ahead is to focus on public–private partnerships in the context of Article 4.5, reiterating the fact that developing countries needed assistance in preparing projects to make them more attractive to investors. In this regard, the need to make project development tools available to project developers was stressed; this could also be done through low cost seminars. Demonstration projects in developing countries can enhance local capacity and awareness.

69. In suggesting a way forward, many participants indicated that future discussion should focus more on governments roles, financial resources in the public domain, and removing barriers in both

developed and developing countries. This process should connect with sister conventions in the context of technology transfer in order share information and lessons learned from their experiences.

70. One of the participants noted that a monitoring system for technology transfer under the Convention should be developed.

71. Finally, there was consensus in indicating that although the private sector's interest and essential role are clear, the leading role of the public sector is necessary in order to move the process forward.

#### IV. Conclusions

72. Taking into consideration the discussions during the workshop and in the final round-table discussion, participants were able to draw some conclusions on possible areas where further work is needed and on specific activities that could be initiated within the UNFCCC process. These are listed below, without any order of priority:

- (a) **Technical paper:** it was suggested that the secretariat elaborate further the background paper and workshop outcomes into a technical paper made available to Parties for consideration by the SBSTA
- (b) **Toolkits and handbooks** on innovative/non-innovative financing of technology transfer projects are necessary for improving project preparation and assessment to international standards. It would be appropriate to develop a list of existing tools, software and models appropriate to financing technology transfer projects and to identify gaps
- (c) **Risk management:** the provision of adequate tools for risk management would be useful to mitigate risks and to improve the quality of projects. The development of risk assessment models may be useful
- (d) **Technology needs assessments** should form the basis for the development of strategic plans to move the technology transfer process forward
- (e) **Adaptation:** the issue of financing the transfer of technologies for adaptation could be considered within the EGTT programme of work, and the forthcoming seminar on technologies for adaptation
- (f) **Training programmes and capacity-building** could be developed using the above-mentioned 'guidelines/tool kit/handbook'. This may be linked to the key elements of the technology transfer framework under decision 4/CP7
- (g) **Dialogue:** continue dialogues with the private sector, engaging both public and private sector financial institutions, and small and medium-sized enterprises and entrepreneurs, could be a future focus especially in developing countries and including appropriate private sector experts from those countries, as well as ECAs
- (h) **Interaction:** linking and communicating within the UNFCCC process (for example on Kyoto mechanisms and adaptation) and between the Convention and other organizations or processes such as the Convention on Biological Diversity (CBD), the OECD/IEA, the Johannesburg Programme of Implementation and others should be encouraged
- (i) **Stocktaking:** the use of public funds, ECAs and donors' seed money as instruments to mitigate 'risk' in financing climate technologies might be further explored

- (j) **Learning from other processes:** consideration might be given to establishing a dialogue with sister conventions and similar organizations, such as the Montreal Protocol and the World Trade Organization, in the context of technology transfer, to learn from their experiences
- (k) **Enabling environments:** establishing the necessary enabling environments, including removing barriers, remains an essential element in relation not only to financing but also to the overall process of technology transfer
- (l) **Demonstration projects** are an essential step taking into account differences between regions/sector/scale
- (m) **Measurement:** an adequate monitoring system for quantitatively and qualitatively measuring the transfer of technology under the Convention is not yet available. Consideration of a measurement system under the Convention may be of value. However, the difficulties inherent in unifying many activities that may meet the objective was noted
- (n) **Role of stakeholders:** defining the role of the different stakeholders is important, in particular the role of public authorities in donor and recipient countries
- (o) **Information/data:** information to test the viability of a project proposal is often lacking. The continuous dissemination of information is vital to support the technology transfer process.

-----