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**SUBSIDIARY BODY FOR IMPLEMENTATION**

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**Item 6 of the provisional agenda**

**Development and transfer of technologies**

**Views on elements for the terms of reference for the review and assessment of  
the effectiveness of the implementation of Article 4,  
paragraphs 1(c) and 5, of the Convention**

**Submissions from Parties**

**Addendum**

1. In addition to the nine submissions contained in document FCCC/SBI/2008/MISC.1, three further submissions have been received.
2. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced\* in the languages in which they were received and without formal editing.

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PAPER NO. 1: AUSTRALIA

**AUSTRALIA**

**Elements for the terms of reference for the review and assessment of the effectiveness of the implementation of Article 4, paragraphs 1(c) and 5 of the United Nations Framework Convention on Climate Change (UNFCCC), in accordance with decision 13/CP.3**

There is universal recognition that the development and transfer of environmentally sound technologies (ESTs) remains central to securing meaningful long term reductions in global emissions and in mitigating the impacts of climate change.

Equally, it is widely agreed that the sustained broad scale development, deployment, and transfer of ESTs will principally be driven and achieved by market based investment supported by sound legal, economic, and social frameworks that are appropriate to Parties' national circumstances. Targeted public sector investment also has an important role to play by supporting and leveraging increased private sector investments and in addressing well established market failures, such as those associated with the RD&D of new technologies. International public sector investment through international financial institutions can also play a vital role in the development, deployment, and transfer of ESTs, particularly in assisting the creation of public-private investment partnerships in EST projects.

The sustained and broad scale deployment of ESTs requires action by all stakeholders, including national and sub-national governments, business, the research community, and consumers to ensure appropriate enabling environments are established with appropriate mechanisms and incentives to promote sustainable economic and social development. To this end, the engagement of a Party's key policy and economic development agencies are crucial in facilitating the development of an effective enabling environment for the transfer of ESTs.

There is an increasing focus on the importance of technology development, deployment and transfer and that this is demonstrated by the growing volume of public and private sector resources being allocated at the international and national levels. There is, and continues to be, a vast amount of development, deployment and technology transfer relevant to the sustainable economic and social development needs of Parties that is commercially transferred and/or deployed on a day-to-day basis, between and within developing and developed countries.

A key focus of the terms of reference for review of the effectiveness of Article 4, paragraphs 1(c) and 5 should be to appropriately identify and measure the full range of factors that have successfully enabled both development, transfer and deployment of ESTs, and the broader technology development and transfer that has occurred over the past 15 years since the Convention was developed.

**General Recommendation for the Terms of Reference**

In accordance with 4/CP.13, the terms of reference for any review should take account of the proposed work of the EGTT on performance indicators. The work of the EGTT on this issue and the review process established in decision 4/CP.13 were clearly established as complementary initiatives and Australia is strongly of the view that the two work streams should be coordinated so as to avoid duplication of effort and to ensure consistency and applicability of outcomes.

In addition, the Fourth Assessment Report of the IPCC notes that there are a range of barriers to technology transfer that vary from sector to sector and between developed and developing countries and economies in transition. Accordingly, the review could also benefit from highlighting and drawing on examples and practical approaches where such barriers have been overcome successfully.

## **Specific Recommendations of the Terms of Reference**

### **Objective**

The objective of these terms of reference is to direct the review and assessment of the effectiveness of the implementation of Article 4, paragraphs 1(c) and 5.

### **Scope**

As embodied in decision 4/CP.13, the scope for these terms of reference includes all activities that are relevant to the fulfilment of Article 4, paragraphs 1(c) and 5.

### **Task**

The review should undertake the following tasks:

Collect a comprehensive range of information which describes all the key elements that underpin the process of technology development, deployment and transfer. At a minimum, this should include the following key indicators:

- The degree to which:
  - public and private sector financial support is being made available to support the development and transfer of ESTs in each Party, and the rate of its uptake;
  - key national policy and economic development agencies are involved in the development and implementation of Parties' climate changes policies;
  - technology needs assessments, and the technology needs identified in these assessments are integrated into national development strategies and goals of Parties.
  - targeted capacity building is being made available to promote the adoption of relevant and climate-friendly technologies in each Party;
  - Parties are engaged in, and support, international technology cooperation partnerships and institutions;
  - Parties have in place effective enabling environments that facilitate development, deployment and transfer of ESTs including:
    - comprehensive national and sub-national policy frameworks to support enhanced investment in clean development and ESTs;
    - independent and effective legal systems that allow for consistent and transparent applications of laws relating contracts, protection of intellectual property rights and responsible and consistent environmental protection;

- established national and sub-national systems of innovation, including linkages to international research, development and deployment focused organizations, bodies or agreements;
  - reduction in investment barriers including, tariff and trade policies within a given country, import restrictions, and uniformity in treatment of domestic and foreign suppliers, manufacturers, financial entities, and other business activities; and
  - the presence of active national trade associations, chambers of commerce, or local offices of major companies and international NGOs that demonstrate the willingness and capacity of local businesses to engage in EST project investment and partnerships.
- The number of:
    - Clean development related projects undertaken within Parties and the degree to which they are supported by bilateral or multilateral financing, including through the Convention's Financial Mechanism and the Kyoto Protocol's Clean Development and Joint Implementation mechanisms;
    - EST related patent registrations and licensing agreements lodged and entered into by Parties; and
    - Parties that have completed, or updated, and submitted national communications, comprehensive GHG inventories, and updated technology needs assessments.
  - The availability and accessibility of information:
    - that assists Parties in identifying and developing relevant and appropriate EST needs;
    - that assists Parties to develop concrete investment proposals for projects that enable the development, deployment and transfer of ESTs.

The review should then undertake detailed analysis of this information, noting the need to provide a complete picture of trends, notable areas of success and failure, and elaborate on reasons therein.

The review should provide this information and analysis and key findings in a report to SBI.

### **Timing**

As previously noted the EGGT will develop a set of performance indicators on this issue which will be made available to the subsidiary bodies for consideration at their thirtieth session. It would therefore seem prudent that the timing and structure of the work program for the review take this into account to ensure efficiency and complementarities of effort and outcomes.

**Development and Transfer of Technologies Under the SBI**  
**Views on Terms of Reference for the Review of Effectiveness of the Implementation of Convention**  
**Articles 4.5 And 4.1(c)**

**SUBMISSION BY CANADA**

**Introduction**

As requested in Decision 4/CP.13, Canada welcomes the opportunity to provide its views on the terms of reference for the review of effectiveness of the implementation of Convention Articles 4.5 and 4.1(c), as conceived in decision 13/CP.3.

The development and transfer of environmentally sound technologies for climate change mitigation and adaptation happens daily through a multitude of mechanisms. The vast majority of these flows occur beyond the scope of the UNFCCC. Technologies and best practices flow from North to South (e.g.: renewables), South to North (e.g. technologies to convert sugar cane to liquid fuels) and from South to South (e.g. coastal zone protection measures to prevent erosion). Environmentally sound technology flows from governments to governments, government to the private sector and between different private sector entities in different countries. As a result, fully comprehensive reviews of technology flows among Parties to the Convention would be very difficult, resource intensive and could possibly provide incomplete or misleading analysis of activity. Given these constraints the review should focus on technology flows involving the public sector.

The 2000 IPCC special report *Methodological and Technological Issues in Technology Transfer* asserted a practical, holistic understanding of effective technology transfer as a country-driven process integrating multiple elements that together act to attract and sustain technology flows over the long term. Drawing upon this work, Parties agreed to the framework to enhance implementation of Convention Article 4.5, annexed to decision 4/CP.7. This framework has served Parties well and provides a solid basis to identify the ways and means, as well as opportunities and barriers, to guide Parties in the execution and implementation of their technology transfer strategies and should provide the basis upon which technology transfer under the UNFCCC and KP should be reviewed. Its main elements are a) technology needs assessment; b) technology information; c) enabling environments; d) capacity building; and the four sub-themes of “mechanisms for technology transfer” (innovative financing, cooperation with other processes, promotion of endogenous technology development and technologies for adaptation).

**EGTT Indicators**

Decision 4/CP.13 also calls upon the EGTT to “develop a set of performance indicators that could be used by the SBI to regularly monitor and evaluate the effectiveness” of the 4/CP.7 framework, for consideration at SB 30 (mid-2009). Canada believes that both the terms of reference for the review and the EGTT’s work on indicators must be coordinated to ensure consistency, so that the indicators developed are used to guide the SBI review.

For the indicators to be relevant to the SBI review, they should address the steps to integrate the spectrum of technology research, development, deployment and commercialization, as well as post-commercialization supply chain issues (for example, import/export restrictions and the local availability of replacement parts and skilled installation and maintenance workers that assure ongoing operation). Indicators of the broader national policy framework are also instructive, such as policy levers available to governments to create incentives, appropriate enabling environments and to build domestic technology absorptive capacity. Specific considerations are:

- Regulatory and legal stability, consistent contract and environmental enforcement and transparency with regard to the protection of intellectual property rights. The World Bank's "Worldwide Governance Indicators" could provide useful guidance.
- Financial and technology risk management strategies.
- Actions to enhance enabling environments to promote investment, to establish systems of innovation linked to international research organizations, to reduce trade and investment barriers and to facilitate local private sector activities such as the establishment of trade associations or chambers of commerce.
- The diffusion of information and training experiences on technologies within a country or region and how it is being used.
- Efforts to address the challenge of bridging the "valley of death" between the development of new technologies and their full market commercialization.

### **SBI Review**

The SBI review should give consideration to the role of the private sector and Parties' efforts to create the appropriate governance structures and enabling environments to attract and sustain technology and investment flows on the scale required to meet the ultimate objective of the Convention. The investment need is substantial: The 2007 IEA World Energy Outlook estimates that \$22 trillion in cumulative global energy supply infrastructure investment is required to 2030, half of which will be in developing countries. This scale of investment can not be met by public funding sources alone – private sector funds must be mobilized.

In the more than 15 years elapsed since the Convention was conceived, formerly closed economies have opened to international investment and technology flows and initiated a period of strong global economic growth built on effective market development and the evolution of appropriate policy infrastructure. The IPCC Fourth Assessment Report also noted the nature of financial flows from OECD countries to developing countries has changed as private sources of foreign direct investment exceeded official development assistance. Furthermore, last year the UNFCCC analysis on financing and investment flows highlighted the primary importance of the private sector, which accounts for 86% of global investment and financial flows. The analysis also noted that while new and additional resources will be required to meet the demand, currently available sources could address a substantial amount of financing needs, but only with appropriate policies and incentives. Appropriate governance structures and enabling environments are crucial.

As noted throughout the products developed for Parties by the EGTT and secretariat over the last six years, the development and transfer of technology is not just about 'hard' technology and investment flows. Capacity building is an essential element of technology transfer, a finding further supported by the recent World Bank report, *Global Economic Prospects – Technology Diffusion in the Developing World 2008*. It notes that although developing countries are widely exposed to foreign technology and direct investment flows, their absorptive capacity limits the ability to exploit them. More technology can be transferred if domestic skills are strengthened and the regulatory environment is flexible enough to avoid hindering innovative firms' access to technology. The review should consider Parties' efforts to incorporate into their policy framework capacity building activities to enable technology absorption. The World Bank and other related international institutions could be called upon to present their work at the review.

To the greatest extent possible, the review should draw upon existing processes under the Convention and Protocol, including the Article 4.2 and Article 9 reviews, respectively, to synthesize information currently dispersed across many different documents. This will, in a cost effective manner, better inform Parties of efforts underway to enhance implementation of Articles 4.5 and 4.1(c). As in the case of annual reviews of capacity building efforts under SBI, the secretariat could be requested to synthesize development and technology transfer information in newly released documents including, *inter alia*,

national communications, technology needs assessments (TNA), national adaptation plans of action (NAPA), EGTT technical papers and annual reports, annual reports of the GEF, reviews of the financial mechanism, annual reports of the CDM Executive Board and Least Developed Countries Expert Group, technical papers and other workshop/seminar reports. Submissions from Parties and relevant international organizations, such as the World Bank and regional development banks, could be another source of additional information.

**Timing of Review**

The SBI review should be after SB 30, after which time the EGTT's indicators will be completed for use by Parties. In addition to the SBI review of technology transfer, paragraph 2(b) of decision 13/CP.3 also notes that the SBI should "develop recommendations to assist the Conference of the Parties in its review and assessment of the implementation of the Convention and in the preparation and implementation of its decisions". In order to make efficient use of resources, Canada believes that the SBI review of effectiveness of the implementation of Convention Articles 4.5 and 4.1(c) should be conducted within the broader context of a comprehensive review of the Convention as a whole, pursuant to Article 4.2 (d). In this manner, all relevant issues can be holistically reviewed together, rather than on an individual basis, which may give an incomplete picture. Such a comprehensive review could also provide valuable input to the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention before it completes its work at the end of 2009.

Ottawa, Canada  
March 2008



**Le développement et le transfert de technologies par l'entremise de l'Organe subsidiaire de mise en œuvre:**  
**Avis sur le mandat relatif pour l'examen de l'efficacité de l'application du paragraphe 4.5 et de l'alinéa c) du paragraphe 4.1 de la Convention**

**PRÉSENTATION DU CANADA**

**Introduction**

Comme le demande la décision 4/CP.13, le Canada est heureux d'avoir l'occasion de faire connaître son point de vue sur le mandat relatif à l'examen de l'efficacité de l'application du paragraphe 4.5 et de l'alinéa c) du paragraphe 4.1 de la Convention, conformément à la décision 13/CP.3.

Le développement et le transfert de technologies respectueuses de l'environnement visant à atténuer les effets du changement climatique et à s'y adapter se produisent quotidiennement par l'entremise d'une multitude de mécanismes. La vaste majorité de ces transferts dépasse la portée de la CCNUCC. Les technologies et les pratiques exemplaires circulent du Nord vers le Sud (p. ex. les énergies renouvelables), du Sud vers le Nord (p. ex. les technologies de conversion de la canne à sucre en combustibles liquides) et du Sud vers le Sud (p. ex. les mesures de protection des zones côtières en vue de prévenir leur érosion). Les technologies respectueuses de l'environnement circulent de gouvernements à gouvernements, du secteur public au secteur privé et entre différentes entités du secteur privé et différents pays. Par conséquent, la réalisation d'un examen entièrement exhaustif des transferts de technologie entre les Parties de la Convention serait très difficile et exigeante en termes de ressources, et un tel examen pourrait fournir une analyse incomplète ou trompeuse de l'activité. En raison de ces contraintes, l'examen devrait mettre l'accent sur les transferts de technologie qui concernent le secteur public.

Le rapport spécial de 2000 du GIEC, intitulé *Questions méthodologiques et technologiques dans le transfert de technologie*, fait valoir une compréhension pratique et globale du transfert de technologie efficace en tant que processus activé par les pays intégrant des composantes multiples qui interagissent en vue d'attirer et de maintenir les transferts de technologie à long terme. Puisant dans ce rapport, les Parties ont convenu d'un cadre permettant de renforcer l'application du paragraphe 4.5 de la Convention, annexé à la décision 4/CP.7. Ce cadre a bien servi les Parties et il fournit une base solide en vue de déterminer les voies et les moyens ainsi que les occasions et les obstacles permettant d'orienter les Parties dans le cadre de l'exécution et de la mise en œuvre de leurs stratégies de transfert de technologie et il devrait constituer la base selon laquelle le transfert de technologie en vertu de la CCNUCC et du Protocole de Kyoto devrait être examiné. Les principaux éléments du cadre sont a) l'évaluation des besoins en matière de technologie; b) l'accès à l'information sur les technologies; c) la création d'environnements propices au transfert technologique; d) le renforcement des capacités. Il comporte aussi quatre sous-thèmes associés aux « mécanismes de transfert de technologie » (des mécanismes de financement novateurs, la collaboration avec d'autres processus, la promotion du développement des technologies endogènes et des technologies pour l'adaptation).

**Indicateurs du Groupe d'experts sur le transfert de technologies**

La décision 4/CP.13 demande aussi au Groupe d'experts sur le transfert de technologies (GETT) de « mettre au point une série d'indicateurs de rendement que l'Organe subsidiaire de mise en œuvre (SBI) pourrait utiliser pour suivre et évaluer périodiquement l'efficacité » du cadre défini dans la décision 4/CP.7, qui seront pris en compte au moment de la réunion SB 30 (au milieu de 2009). Le Canada estime que le mandat relatif à l'examen et les travaux associés à l'élaboration d'indicateurs du GETT doivent être coordonnés afin d'assurer une cohérence, de façon à ce que les indicateurs élaborés soient utilisés pour orienter l'examen de SBI.

Pour que les indicateurs soient pertinents à l'examen de SBI, ils devraient porter sur les étapes relatives à l'intégration de l'éventail des activités de recherche, de développement, de déploiement et de commercialisation de la technologie ainsi que sur les questions associées à la chaîne d'approvisionnement suivant la commercialisation (par exemple, les restrictions liées à l'importation/exportation, à la disponibilité locale des pièces de rechange et à l'accès à des travailleurs qualifiés pour effectuer l'installation et la maintenance et qui assurent une opération continue). Les indicateurs se rapportant à la politique-cadre nationale élargie sont également instructifs, comme les leviers politiques auxquels les gouvernements ont accès pour créer des incitatifs et des environnements propices au transfert de technologie et pour renforcer l'aptitude d'un pays à absorber la technologie. Les considérations particulières sont les suivantes:

- Une stabilité sur les plans juridique et réglementaire, une cohérence accrue dans les contrats et dans la mise en application des lois environnementales, ainsi qu'une transparence en ce qui trait à la protection des droits de propriété intellectuelle. Les « indicateurs mondiaux de la gouvernance » élaborés par la Banque mondiale pourraient apporter une orientation utile.
- Des stratégies de gestion des risques financiers et technologiques.
- Des mesures pour améliorer les environnements propices au transfert technologique afin de favoriser les investissements, établir des systèmes novateurs associés à des organisations de recherche internationales, réduire les obstacles au commerce et à l'investissement et faciliter les activités du secteur privé local, comme l'établissement d'associations commerciales ou de chambres de commerce.
- La diffusion de renseignements et des expériences de formation en matière de technologies au sein d'un pays ou d'une région et la façon dont elles sont utilisées.
- Les efforts en vue d'éliminer la « vallée de la mort » qui existe entre la mise au point de nouvelles technologies et leur entière commercialisation sur le marché.

### **Examen de SBI**

L'examen de SBI devrait prendre en compte le rôle du secteur privé et les efforts des Parties en vue de mettre en place les structures de gouvernance et les environnements propices au transfert de technologies appropriés pour attirer et maintenir les flux d'investissement et de technologie à l'échelle requise pour atteindre le but ultime de la Convention. Les besoins en matière d'investissement sont considérables : selon le *World Energy Outlook 2007* publié par l'Agence internationale de l'énergie, des investissements cumulatifs mondiaux de l'ordre de 22 billions de dollars devront être consacrés aux infrastructures d'approvisionnement énergétique d'ici 2030, dont la moitié ira aux pays en développement. Des investissements d'une telle ampleur ne peuvent provenir des sources publiques de financement uniquement; les ressources du secteur privé doivent être mobilisées.

Depuis plus de 15 ans que la Convention a été conçue, des économies autrefois fermées se sont ouvertes à l'investissement international et aux transferts de technologie et elles ont entamé une période de forte croissance économique mondiale construite sur un développement efficace du marché et la mise en place d'une infrastructure politique adéquate. Le quatrième rapport d'évaluation du GIEC souligne également que la nature des flux financiers provenant des pays de l'OCDE vers les pays en développement a changé étant donné que les sources privées d'investissement étranger direct ont dépassé le montant de l'aide au développement officielle. De plus, l'analyse réalisée l'année dernière par la CCNUCC sur les flux de financement et d'investissement soulignait l'importance capitale du secteur privé, qui compte pour 86 % des flux mondiaux d'investissement et de financement. L'analyse indique également qu'à mesure que des ressources nouvelles et additionnelles seront requises pour répondre à la demande, les sources actuellement disponibles pourront répondre à une quantité considérable de besoins en matière de financement, mais uniquement si elles disposent des politiques et des incitatifs appropriés. Il est essentiel de disposer de structures de gouvernance et d'environnements propices au transfert de technologies appropriés.

Tel que noté dans l'ensemble des produits élaborés par le GETT et le secrétariat à l'intention des Parties, au cours des six dernières années, le développement et le transfert de technologies ne concernent pas uniquement les flux d'investissement et de technologie « tangibles ». Le renforcement des capacités est une composante essentielle du transfert de technologies, une conclusion appuyée par le récent rapport de la Banque mondiale intitulé *Perspectives économiques mondiales 2008 : la diffusion de la technologie dans les pays en développement*. Ce rapport fait remarquer que, bien que les pays en voie de développement soient largement exposés aux flux d'investissements directs et de technologie étrangère, leurs capacités à se les approprier limite leur habilité à les exploiter. Un plus grand nombre de technologies pourraient être transférées si les compétences des pays étaient renforcées et que la réglementation était suffisamment souple pour éviter d'entraver l'accès à la technologie aux entreprises novatrices. L'examen devrait tenir compte des efforts accomplis par les Parties pour intégrer dans leur cadre de politiques des activités de renforcement des capacités en vue de permettre l'absorption des technologies. La Banque mondiale et d'autres institutions internationales qui y sont associées pourraient être appelées à présenter leurs travaux au cours de l'examen.

Dans la mesure du possible, l'examen devrait faire appel aux processus existants en vertu de la Convention et du Protocole, y compris aux examens du paragraphe 4.2 et de l'article 9, respectivement, afin de synthétiser l'information actuellement dispersée dans un grand nombre de documents différents. Cet usage judicieux des ressources permettra de mieux informer les Parties des efforts actuellement déployés pour renforcer l'application du paragraphe 4.5 et de l'alinéa c) du paragraphe 4.1. Comme c'est le cas des examens annuels des efforts de renforcement des capacités dans le cadre de SBI, le secrétariat pourrait être tenu de synthétiser les renseignements relatifs au développement et au transfert de technologies dans les nouvelles publications, y compris, entre autres, les communications nationales, les évaluations des besoins en matière de technologie, les programmes d'action nationaux aux fins de l'adaptation, les documents techniques et rapports annuels du GETT, les rapports annuels du Fonds pour l'environnement mondial, les examens des mécanismes de financement, les rapports annuels du Comité exécutif du mécanisme du développement propre et du Groupe d'expert sur les pays les moins avancés, les documents techniques et autres rapports issus d'ateliers ou de colloques. Les présentations des Parties et des organisations internationales pertinentes, comme la Banque mondiale et les banques régionales de développement, pourraient être une source d'information additionnelle.

### **Calendrier de l'examen**

L'examen de SBI devrait être réalisé après la réunion SB 30, après laquelle les indicateurs du GETT seront mis au point pour l'usage des Parties. Outre l'examen du transfert de technologies de SBI, l'alinéa b) du paragraphe 2 de la décision 13/CP.3 indique également que SBI devrait « formuler des recommandations en vue d'appuyer la Conférence des Parties dans le cadre de son examen et de son évaluation de la mise en œuvre de la Convention et de la préparation et la mise en œuvre de ses décisions ». Afin de faire une utilisation efficace de ses ressources, le Canada estime que l'examen de l'OSMCE sur l'efficacité de l'application du paragraphe 4.5 et de l'alinéa c) du paragraphe 4.1 de la Convention devrait être réalisé dans le contexte plus large d'un examen exhaustif de la Convention dans son ensemble, conformément à l'alinéa d) du paragraphe 4.2. Ainsi, toutes les questions pertinentes pourraient être examinées ensemble, de manière globale plutôt qu'individuelle, ce qui pourrait donner un portrait incomplet. Un tel examen exhaustif devrait aussi fournir de précieux commentaires aux travaux du groupe de travail spécial sur l'action coopérative à long terme (Ad Hoc Working Group on Long-term Cooperative Action) créé en vertu de la Convention, avant que celui-ci n'achève ses travaux à la fin de 2009.

Ottawa, Canada  
Mars 2008

PAPER NO. 3: JAPAN

**Japan's views on technology transfer**

*Based on the paragraph 7 of the decision 4/CP.13, Japan is pleased to submit its views on elements for the terms of reference for the review and assessment of the effectiveness of the implementation of Article 4, paragraph 5, and Article 4, paragraph 1(c) of the United Nations Framework Convention on Climate Change (UNFCCC).*

Basic opinions about technology development and transfer

- Technology is the key to mastering climate change. All countries including both developed and developing countries need to make a significant effort to research, develop, deploy, diffuse and transfer technologies.
- Technology diffusion and transfer take a variety of forms. In fact, technology can be transferred through the export or import of goods, setting up factories or joint ventures by firms in developed countries, or technology licensing from enterprises in developed countries to those in developing countries. The progress in technology transfer differs among countries, sectors, and technologies. For instance, there are certain technology areas where a significant amount of technology transfer from developed countries to developing countries has been already carried out through licensing on a business level. Therefore, we should not only discuss technology transfer in general terms, but also take a closer look on a country-by-country and sector-by-sector basis, identify technologies that should be deployed in a certain sector of a country, and discuss how to promote the transfer of the technologies to the country
- The primary driver of technology transfer is a private sector that has technologies. Therefore, it is important to prepare an enabling environment where private sectors can conduct healthy business activities. By doing so, investment by private sectors, which is a major source of global financial flows, is facilitated and, as a result, technology transfer is promoted.
- Both technology providers and recipients have significant roles to play to make this happen, which include:
  - Implementing measures for tariff and non-tariff barriers
  - Ensuring effective IPR arrangements and protection
  - Building capacities such as human resources and private entities to absorb technologies
  - Introducing policies to promote technology diffusion.
  - Financial support
- Concerning issues related to the strategic programme which the SBI requested the GEF to discuss, to upgrade the level of investment in technology transfer, it is necessary to have concrete discussions based on an accurate understanding of the actual circumstances of technology transfer, as mentioned above.

*Knowing that various elements will be discussed in reviewing or evaluating the effect of implementation of Article 4, paragraph 5 and Article 4, paragraph 1(c) under the Convention, we hereby focus on the elements necessary to have concrete discussions based on a precise understanding of the actual state of technology transfer.*

Views on the review of TOR

It is appropriate to use performance indicators now under consideration in reviewing the effect of implementation of Article 4, paragraph 5 and Article 4, paragraph 1(c). They should be ones that

provide basic information for concrete discussions as described above. To this end, collecting information and detailed analysis on the following items is necessary.

Examples of performance indicators

- Identification of major environmentally friendly technologies (Recipient country is required to identify technologies that the country needs.)
- Level of introduction of products and equipment featuring environmentally friendly technologies identified above in developing countries
- Distinction between imported or domestic procurement of those products and equipment in developing countries
- Numbers, areas, and monetary values of domestic production, imports and exports of major products or equipment featuring environmentally friendly technologies, in developing countries
- Level of activities of enterprises of developed countries that have major technologies identified above, in developing countries, and forms of activities (e.g., installation of factories and/or R&D facilities, establishment of joint ventures, licensing of technologies)
- Numbers, areas, and monetary values of technology transfer projects conducted by government-related institutions
- Numbers, areas, and monetary value of supports from developed countries for capacity building in developing countries.
- Numbers, areas, and monetary values of direct investments from overseas in developing countries
- Conditions of investment environment including regulatory infrastructure in developing countries
- Number of licenses acquired from foreign-affiliated companies
- Tariff situation for environmentally friendly products.
- Amount of public funding for technology development and deployment in developing countries.

*We look forward to discussing these issues and others as appropriate in order to move the discussion forward in the subsequent sessions of the Subsidiary Bodies.*

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