WORKSHOP 4

The way forward: Strengthening the international architecture for clean and environmentally sound technology development, transfer and dissemination

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Overview of the presentation

- Introduction
- Commitments by the international community
- The way forward
- Turkey's STI policy and achievements
- International co-operation of Turkey

Sustainable development cannot be achieved without science, technology and innovation (STI).

Transition to green economy in the context of sustainable development and poverty eradication is possible only by enabling all countries to access to technology, know-how and expertise.

Acquiring clean and environmentally sound technologies through technology transfer can help developing countries progress both economically and socially.

It also facilitates their integration into the global economy.

However, for real gains, it must be complemented by domestic technological efforts.

Rio+20 Outcome Document

Recognizes the critical role of technology as well as the importance of promoting innovation, in particular in developing countries.

Emphasizes the importance of technology transfer to developing countries.

Refers to the Johannesburg Plan of Implementation which calls to promote, facilitate and finance access to and the development, transfer and diffusion of environmentally sound technologies and corresponding know-how on favorable terms as mutually agreed.

Highlights the role of foreign direct investment, international trade and international cooperation in the transfer of environmentally sound technologies.

Istanbul Programme of Action

Stresses that all LDCs are lagging behind in science, technology and innovation which are key drivers for transformation.

Underlines that LDCs have often not been able to move beyond outdated technologies that characterize their production processes and outputs.

Aims at establishing a Technology Bank and Science, Technology and Information supporting mechanism, dedicated to LDCs which would help improve their scientific research and innovation base as well as access and utilize critical technologies.

UNFCCC

The developed country Parties shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.

COP 16

Decided to accelerate action, consistent with international obligations, at different stages of the technology cycle, including technology development and transfer.

Decided to establish a Climate Technology Centre which shall facilitate a network of national, regional, sectoral and international technology networks, organizations and initiatives.

TRIPS Agreement

Objective: The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

LDCs: Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base.

There are numerous commitments by the international community.

However, technology transfer and dissemination are not happening quickly enough. There are many reasons for this delay.

One of the main reasons is global intellectual property rights (IPRs) protection.

IPRs are designed to foster innovation by protecting assets and rewarding innovators.

But, they do so at a cost of delayed or no access, reduced competition and higher prices.

Besides, mutual advantage of producers and users as well as social and economic welfare – sustainable development – are not paid due attention.

In view of achieving sustainable development and improving the living conditions of poor and vulnerable populations, transfer of basic technologies is necessary particularly in the areas of agriculture, food, water, energy and climate change.

In this respect, there is a need to improve the flexibility of IPRs available to countries at different levels of development, in particular to LDCs.

The approach to IPRs needs to strike a better balance among incentives for creativity, society's interest and ecological needs.

Paragraph 273 of the Rio+20 Outcome Document requests from relevant United Nations agencies to identify options for a facilitation mechanism that promotes the development, transfer and dissemination of clean and environmentally sound technologies by, inter alia, assessing the technology needs of developing countries, options to address those needs and capacity-building.

Such a study will provide a basis for discussions on finding appropriate ways to address technology needs of developing countries.

Open Working Group on SDGs should elaborate on this critical issue.

There are, of course, great political difficulties involved.

However, global progress in sustainable development is certainly not a zero-sum game.

Turkey has been engaged in a significant science, technology and innovation impetus with the linkage of socio-economic goals.

Vision 2023 was set to create an innovative economy and society in the centenary of the Republic.

Turkish Research Area was established in 2004 with the objectives of

- Achieving sustained growth and sustainable development
- Enhancing the competitiveness of industry and economy
- Improvements in quality of life
- Creating a knowledge-based society

Eight strategic cross-cutting areas were identified

- Information and communication technologies
- Bio-technology and gene technologies
- Energy and environmental technologies
- Material technologies
- Mechatronics
- Nanotechnology
- Design technologies
- Production process technologies

Turkish Research Area aims at

- Boosting the demand for STI
- Increasing the share of STI expenditures in GDP
- Increasing the number of qualified researchers
- Improving STI infrastructure
- Promoting innovative entrepreneurship
- Enhancing innovative capacity of the private sector, in particular the SMEs, through specific incentives
- Transferring knowledge and technology

Year	2002	2011
STI expenditure	$US 1 billion	$US 6 billion
Share of STI expenditure in GDP	0.53 per cent	0.86 per cent
Share of the private sector	28.7 per cent	43.2 per cent
Number of full-time researchers	29,000	93,000
Number of scientific publications	6,977	28,194 (2010)
Turkey's rank in scientific publications	26	18
Number of patents registered (national)	73	847
Number of patents registered (total)	1784	6539

Accession process to the European Union has made positive contributions to STI in Turkey and boosted international cooperation.

Turkey participated partly in the 5th and 6th Framework Programmes for Research and Technological Development of the EU.

Turkey is an associated country to the 7th Framework Programme 2007-2013.

Negotiations of the Science and Research Chapter was opened and provisionally closed in the year 2006.

€145 million has been received from the 7th Framework Programme by 879 Turkish research entities on a competitive basis.

Similar support models have been developed at the national context.

Turkey's assistance to developing countries in the context of South-South cooperation mainly concentrates on technical cooperation and infrastructure development.

Turkish Cooperation and Coordination Agency (TİKA) is implementing Turkey's development cooperation strategy.

The main areas of technical cooperation are agriculture, forests, water, education, health and disaster relief.

In 2012, Turkey spent $US 112 million to technical cooperation and $US 487 million to project and program support.

Turkey is willing to extend its cooperation with developing countries in STI.

Advancements of Turkey in STI will accelerate this process.

Such a cooperation should go beyond technical assistance.

Increasing the volume of trade and investment will certainly boost technological cooperation.

Technology transfer support program launched in Turkey in 2011 and Technology Transfer Offices (TTOs) were established.

Supported by the Government, TTOs are functioning as an interface between the universities and the private sector in the national context.

TTOs encourage research and innovation according to priorities, needs and developments as well as facilitate mobilization of resources, commercialization of technology and sharing costs and revenues.

TTOs can play an important role in international cooperation and transfer of technology in the years to come.

During the 4th UN Conference on LDCs, Turkey announced a comprehensive assistance package to LDCs.

•Technology transfer program through bilateral and triangular cooperation and in partnership with UNESCO and UNIDO

•Exchange of scientists and researchers

•Networking among scientific institutions

•A comprehensive scholarship program to provide 1000 scholarships to LDCs by 2020. The program concentrates particularly on postgraduate studies in the fields of agriculture, engineering and medicine.

The existing initiatives and mechanisms available to support technological innovation and technology transfer are neither comprehensive nor specifically tailored to LDCs' particular needs.

Some of them are just providing information on the available technologies without supporting the technology transfer to LDCs.

The proposal of establishing a Technology Bank/International Science Technology and Innovation Facility for LDCs is therefore central for the transfer and application of essential technologies in a consolidated manner in LDCs.

Turkey stands ready to host such an international facility and to provide support in terms of financing and human resources.

The gap and capacity, which is underway, will provide a guidance for the next steps.

Thank you for your attention.