United Nations TD/B/C.II/MEM.4/29

United Nations Conference on Trade and Development

Distr.: General
31 October 2023

Original: English

Trade and Development Board
Investment, Enterprise and Development Commission
Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-Building and Sustainable Development
Tenth session
Geneva, 27–28 September 2023

Report of the Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development on its tenth session

Held at the Palais des Nations, Geneva, 27 and 28 September 2023

Introduction

The tenth session of the Multi-Year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development was held on 27 and 28 September 2023 at the Palais des Nations in Geneva.

I. Chair's summary

A. Opening plenary

1. In his opening statement, the Deputy Secretary-General of UNCTAD stated that, in aiming to achieve the Sustainable Development Goals, green technologies presented significant opportunities to improve livelihoods, enhance productivity and reduce greenhouse gas emissions. He noted that the world was at the beginning of a green technological revolution and that developing countries needed to act fast with sound government policies and private sector initiatives, to open time-bound green windows of opportunity and foster sustainable economic diversification. In addition, support from the international community was vital, to assist developing countries in building innovation capabilities and the necessary technologies. Finally, the Deputy Secretary-General stressed the need for decisive action, targeted investment and international cooperation, to ensure a more inclusive and sustainable world for all.

2. The keynote speaker, Team Leader, Science of Cities Group, Complexity Science Hub, Vienna, detailed that the green transition involved many transitions. For example, the transition to renewable energy systems, which was resource intensive, demanded a transition in mineral supply chains; and "green" jobs, which required higher levels of education and significant reskilling, triggered a transition in the labour market and the global division of labour. The panellist introduced a network analysis framework with which to identify green pathways, and presented opportunities in the green transition, such as in wind power and carbon capture. He elaborated on the uncertainties and trade-offs in the green transition, highlighting that the development of green technologies was influenced by changing socioeconomic, political and technological environments. He concluded by suggesting that countries could reflect on how the green transition could contribute to sustaining competitive advantages in view of the multiple transitions, challenges and solutions.

3. On behalf of the Director of the Division on Technology and Logistics, UNCTAD, the Head of the Technology, Innovation and Knowledge Development Branch presented the background document, titled "Recent developments, challenges and opportunities in sustainable economic diversification" (TD/B/C.II/MEM.4/28). He highlighted three main routes that developing countries could follow to leverage green technologies for the sustainable diversification of economies, namely, the development and deployment of renewable energy technologies; the greening of global value chains; and diversification towards more complex and greener sectors. He outlined six directions of international collaboration for sustainable economic diversification, including the strengthening of official development assistance for science, technology and innovation and green technologies; the alignment of international trade rules and intellectual property rights with international climate change agreements; the need to provide greater flexibility to developing countries; a partnership-oriented approach to green technology development; support for multilateral and open innovation; and a multilateral system for technology assessments.

B. Recent developments, challenges and opportunities in sustainable economic diversification

(Agenda item 3)

1. Opening of green windows of opportunity

4. During the first informal session, the panellists discussed key steps in catching up on green innovation. The panel was composed of the following: Professor of Economics, University of Pavia, Italy; Professor of Innovation and Entrepreneurship, Department of Food and Resource Economics, University of Copenhagen; and Senior Researcher, Institute of Development and Sustainability, Germany.

5. The first panellist presented a framework for the green windows of opportunity created by public institutions, domestic markets and research and development. She provided case studies and elaborated on the preconditions and strategic responses required to open such windows. The panellist detailed different catch-up trajectories at the sectoral level, highlighting how the trajectories varied based on the tradability and maturity of renewable energy technologies, as an example of opportunities from the developing country perspective despite the challenges to the green transition. Finally, she stressed that strong national and international political will, supported by timely innovation and industrial and energy policies, was key to catching up on the green technological revolution.

6. The second panellist discussed the coevolution of technology development and policymaking, in particular related to sustainability transitions. He emphasized that policymakers should consider the interrelations between the multiple transitions taking place and the particular needs of different emerging industries. The panellist suggested three principles for policymaking, namely, setting a clear direction for change through a concrete analytical framework and a mission-oriented approach based on societal goals; coordinating policies among the different agencies involved in various technological and economic aspects of the mission; and building capacity for advocacy and engaging with industry stakeholders, to increase policy adaptability in the face of upcoming challenges.

7. The third panellist stressed that not all green windows of opportunity were in frontier technologies and that developing countries should also consider opportunities beyond the technological frontier. For example, in Costa Rica, bio-based technology could contribute to sustainable economic diversification, and the panellist elaborated on the opportunities for technological learning and sustainable structural change provided by the integration of agricultural and industrial value chains. He further discussed the evolution of green hydrogen in different countries, highlighting the high levels of technological and systemic uncertainties. Finally, the panellist suggested that Governments should enhance capacities in technology foresight and technology assessment, to predict future developments and inform policymaking and to strengthen national quality infrastructure, research and development and cooperation, as well as to strengthen market intelligence in order to enable national businesses to identify green windows of opportunity.

8. During the ensuing discussion, several delegates and panellists highlighted that the widening knowledge and technology gaps between developed and developing countries hindered developing countries from opening green windows of opportunity and that moving from brown jobs to green jobs required a number of skills and educational development. Several delegates and panellists stressed the importance of education in the development of science, technology, engineering and mathematics and technical and vocational skills, and of financial support and cooperation at the regional and international levels, to strengthen innovation systems in developing countries. One delegate suggested that greater flexibility in the intellectual property rights system could promote technology and knowledge transfer, and another delegate and one panellist emphasized that an increased flow of green foreign direct investment could play an important role in this regard. One delegate called for greater reflection on the role of small and medium-sized enterprises in the green transition. Another delegate stressed the urgency of climate change, which required proactive and multilateral responses at all levels.

2. Development and deployment of renewable energy technologies

9. During the second informal session, the panellists discussed policy measures and programmes with which to accelerate the development and deployment of renewable energy technologies. The panel was composed of the following: Programme Director, Global Sustainable Technology and Innovation Community, Flemish Institute for Technological Research, Belgium; Associate Professor and Head, Renewable Energy Systems Group, University of Geneva; and Professor, Indian Institute of Technology Bombay, and Founder, Energy Swaraj Foundation, India.

10. The first panellist detailed the approach of stakeholder involvement and management at the Flemish Institute for Technological Research and provided examples of international collaboration in the deployment of sustainable solutions in the energy sector. He elaborated on four projects that combined technical assistance and training, involving hydroelectric mini-grid turbines, integrated solar- powered drip irrigation systems, distributed energy systems and battery test beds. Finally, he discussed lessons learned and suggested how the projects could be scaled up and implemented in developing countries, to accelerate the development and deployment of renewable energy technologies.

11. The second panellist shared insights from the planned electricity sector transition in Europe up to 2035, and parallel experiences in various countries outside the region. She analysed the cost competitiveness, installed capacity and risk levels of different technologies, stating that an energy mix should be changed to efficiently meet emission targets and that wind, solar and battery power were key. The panellist discussed how different types of renewable energy technologies could lead to benefits in different areas such as job creation, improved health and lower electricity prices. Finally, she suggested that open-access spatial energy models could facilitate long-term planning, coupled with the short-term operation of electricity generation and grids, and highlighted the need to build up capacity for the use and development of such models in developing countries.

12. The third panellist emphasized that energy was key in the achievement of the 2030 Agenda for Sustainable Development, and that not only energy production but also consumption needed to be redesigned. He advocated for an “avoid, minimize and generate” approach, namely, to avoid the use of energy by one third, minimize energy usage by one third and generate most energy locally. The panellist shared key concepts of localization and experiences in India in providing solar power solutions and organizing capacity-building activities that led to energy independence, skill development and accelerated sustainable development in local communities. Finally, he emphasized that government action alone would not be sufficient and that a public movement that involved all key stakeholders was essential in generating energy by locals, for locals.

13. During the ensuing discussion, one delegate and one panellist stressed the usefulness of energy models for policymaking and investment decisions on renewable energy technologies. One delegate stressed the need for more prudent use of energy and the localization of energy production. A few delegates raised concerns about the economic attractiveness of the green transition in countries with abundant fossil fuels. A few other delegates shared national green initiatives that centred on the needs of citizens and successfully increased the uptake of renewable energy despite significant challenges. The panellists highlighted the importance of improving public acceptance of renewable energy technologies and suggested launching awareness-raising campaigns to educate the public, address misconceptions and explain the benefits of renewable energy technologies and the need for a green transition. One delegate added that advocacy and awareness-raising should be done at different levels, with engagement by different stakeholders.

3. Economic diversification and greening of global value chains

14. During the third informal session, the panellists discussed key challenges in and opportunities for developing countries in leveraging technologies, to diversify towards greener and more complex sectors, as well as to green and to move up value chains. The panel was composed of the following: Associate Professor, Department of Society, Politics and Sustainability, ESADE[Escuela Superior de Administración y Dirección de Empresas] Business School, Spain; Project Manager, Programme for the Future of Europe,

Bertelsmann Stiftung, Germany; and Hallsworth Research Fellow, Global Development Institute, University of Manchester, United Kingdom of Great Britain and Northern Ireland.

15. The first panellist highlighted global value chains as a mechanism for transferring knowledge and promoting innovation. She discussed the possible positive and negative effects of the participation of global value chains in economic, social and environmental upgrading, and explained the role of lead firms in driving sustainability within and outside global value chains, noting the importance of developing local capabilities to benefit from them and of sharing a common understanding of which sustainability outcomes should be targeted and measured. The panellist suggested that Governments should take a systemic perspective on policy development, including understanding the characteristics of a given global value chain, to ensure the availability of required resources and capabilities, as well as the involvement of key stakeholders in the design and implementation of policy.

16. The second panellist stressed the importance of supporting the development of sets of related skills, to move toward more complex productions, which could optimize economic development and reduce costs and risks while maximizing the likelihood of success. He emphasized that technology development should build upon existing capabilities and that countries could make up for missing capabilities by collaborating with others and benefiting from sharing complementary knowledge. The panellist discussed two policy interventions in Europe for fostering green and digital technologies, namely, a smart specialization strategy (bottom up) and Horizon Europe (top down). Finally, he highlighted that developing countries could benefit from lessons learned, to design policies tailored to local conditions, while targeting societal challenges.

17. The third panellist discussed environmental upgrading and digital integration in value chains in Kenya, South Africa and Uganda. She noted the role of the Government in promoting environmental upgrading in value chains and presented different measures based on country and firm-level studies. The panellist highlighted gaps in the regulation and implementation of environmental policies and discussed the role of small and medium-sized enterprises in closing such gaps, noting the need for increased support in order to green enterprises. Finally, the panellist stated that digital technologies could facilitate environmental upgrading, yet noted the tensions in global value chains, and stressed the importance of policy coordination at the national and regional levels.

18. During the ensuing discussion, one delegate highlighted that technology played an important role in accelerating sustainable development in the least developed countries and that global value chains could facilitate the sharing of technology and knowledge. A few delegates and one panellist reiterated the problem of the widening technological gap between developed and developing countries. With regard to a query from one delegate on the definition of “green” and how it could be quantified, one panellist suggested taking nature as a benchmark by which to assess outcomes and the use of the term “regeneration”, which implied a reduction in energy requirements. One delegate raised the concern that ecological certifications might create export barriers for developing countries. The panellists agreed that certifications were necessary, along with the harmonization of rules and ecological standards. Another delegate and one panellist suggested conducting analyses at the country level, to advise on the best policies for economic diversification. One delegate highlighted the difficulties faced in countries with limited resources in achieving technological upgrading while also addressing multiple needs. A few delegates and all panellists agreed that the creation of regional cooperation mechanisms in the field of green technology could support countries in placing themselves strategically in global value chains.

4. International collaboration for sustainable economic diversification

19. During the fourth informal session, the panellists discussed how the international community could empower developing countries in diversifying production in a sustainable manner. The panel was composed of the following: Director, Division for Capacity Development, Industrial Policy Advice and Statistics, United Nations Industrial Development Organization; and Head, Innovation Economy Section, Department of Economics and Data Analytics, Intellectual Property and Innovation Ecosystems Sector, World Intellectual Property Organization.

20. The first panellist stated that the concentration of both digital and green technologies in developed economies had exacerbated the innovation gap between developed and developing countries, which was broader than the gaps in infrastructure and industrial bases. He stressed that forward-looking industrial policies centred on digitalization and decarbonization were key in strengthening industrial capabilities and closing such gaps. The panellist stressed that financial constraints, short-termism with regard to industrial policies and the lack of industrial capacities were the major challenges in developing countries. Finally, the panellist highlighted the need for global solidarity, the renewal of rules and a spirit of international partnership, to make industrial policies a driver of synergies across different policies in developing countries.

21. The second panellist discussed how to change the direction of innovation, towards a greener path. He detailed the misalignment of private and social returns from innovation and stressed that multi-stakeholder, international coordination was essential in order to solve global challenges. Referring to the success of public–private partnerships in producing vaccinations during the pandemic, the panellist suggested that similar collaboration models could be applied with regard to green technologies and innovation. Finally, the panellist outlined key constraints to the development and adoption of green technologies, including insufficient market demand, lack of investment and limited incentives, and shared green initiatives undertaken by the World Intellectual Property Organization.

22. During the ensuing discussion, one delegate suggested that, in recent decades, the market, rather than industrial policies, had tended to dictate industrial development. One panellist stated that industrial policies were needed to resolve market failures and promote technological upgrading, noting the importance of providing evidence of the instruments and programmes that worked for modern industrial policies. With regard to a query from one delegate on the definition of "innovation ecosystem", one panellist stated that it referred to a set of capabilities among relevant actors and their interlinkages that enabled a country to innovate. With regard to how intellectual property could create incentives for technology transfer and close the technological gap between developed and developing countries, one panellist stated that developing countries had some flexibility in the use of intellectual property and that intellectual property might not be the only issue; production complexity also played a major role, highlighting the need for countries to strengthen industrial and innovation capabilities, for the adoption and adaptation of technology.

C. Conclusion

23. The Chair noted that the experts had reached consensus on the importance of closing the knowledge and technology gaps between developed and developing countries. The main points emerging from the discussions had been as follows: (a) there was no one-size-fits-all solution and multiple solutions were required to address the complex problem of sustainable economic diversification in line with local conditions; (b) more dedicated efforts were needed to build innovation capacity in developing countries, involving investment in research and development, quality education and training and strong linkages among key stakeholders of innovation ecosystems; (c) the international community played a critical role in supporting developing countries in strengthening technological capacities and empowering them with the capacity to harness the benefits of the green technological revolution and, while developed countries needed to increase support to developing countries, closer collaboration among developing countries was equally important; (d) political commitment coupled with improved international financial mechanisms and collaboration models was essential, to ensure adequate support to developing countries; (e) regional coordination and collaboration could support the building of innovation capabilities, to address the issue of adapting green technologies to regional environmental conditions and challenges and to help develop and implement policies that fostered a stronger push by leading firms in greening global value chains; (f) the increased harmonization of definitions, certifications and requirements related to greening could help in designing more effective interventions for sustainable technological upgrading and economic diversification; (g) the development of energy modelling helped provide

evidence-based policymaking and investment decisions on renewable energy technologies; and (h) it was important to complement the production approach based on green technologies with other strategies that promoted energy saving and efficient use.

24. In his concluding remarks, the Head of the Technology, Innovation and Knowledge Development Branch highlighted the importance of a comprehensive analytical framework for policymakers in a time of growing uncertainty. He suggested that countries could develop innovative capacities to harness the benefits of green technologies and noted the support provided by UNCTAD that enhanced capacities among national policymakers in designing and implementing policies. He stressed that global collaboration on science, technology and innovation was key in creating a win-win situation that benefited all. Finally, he encouraged participants to contribute to the 2023–2024 intersessional panel meeting of the Commission on Science and Technology for Development, to be held on 6 and 7 November 2023, to discuss global cooperation in science, technology and innovation for development.

II. Organizational matters

A. Election of officers

(Agenda item 1)

25. At its opening plenary meeting on 27 September 2023, the Multi-Year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development elected Mr. José Samuel Valencia Amores (Ecuador) as its Chair and Mr. Muhammadou MO Kah (The Gambia) as its Vice-Chair-cum-Rapporteur.

B. Adoption of the agenda and organization of work

(Agenda item 2)

26. Also at its opening plenary meeting on 27 September 2023, the Multi-Year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development adopted the provisional agenda for the session (TD/B/C.II/MEM.4/27). The agenda was thus as follows:

1. Election of officers.
2. Adoption of the agenda and organization of work.
3. Recent developments, challenges and opportunities in sustainable economic diversification.
4. Adoption of the report of the meeting.

C. Adoption of the report of the meeting

(Agenda item 4)

27. At its closing plenary meeting on 28 September 2023, the Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development authorized the Vice-Chair-cum-Rapporteur, under the authority of the Chair, to finalize the report on its tenth session after the conclusion of the meeting.

Annex

Attendance*

1. Representatives of the following States members of the Conference attended the session:

Antigua and Barbuda
Argentina
Belgium
Cambodia
Cameroon
Dominican Republic
Ecuador
Egypt
Gabon
Gambia (the)
Guinea
Iran (Islamic Republic of)
Iraq
Malawi
Mauritius
Mexico
Morocco
Nepal
Nicaragua
Nigeria
Oman
Pakistan
Panama
Peru
Romania
Russian Federation
Sri Lanka
Trinidad and Tobago
Türkiye
Viet Nam
Yemen
Zambia

2. The following intergovernmental organization was represented at the session:

European Union

3. The following specialized agencies and related organizations were represented at the session:

Economic and Social Commission for Asia and the Pacific
United Nations Industrial Development Organization
World Intellectual Property Organization

4. The following non-governmental organizations were represented at the session:

General category

Village Suisse ONG

* This attendance list contains registered participants. For the list of participants, see TD/B/C.II/MEM.4/INF.10.