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## **I. Introduction**

1. The sixth Ministerial Conference on Environment and Development in Asia and the Pacific, held in Astana from 27 September to 2 October 2010, was organized by the Economic and Social Commission for Asia and the Pacific (ESCAP) in cooperation with the Government of Kazakhstan. More than 800 participants attended the event, including representatives of 46 member States. The outcome documents of the Ministerial Conference included the Ministerial Declaration on Environment and Development in Asia and the Pacific, 2010; the Regional Implementation Plan for Sustainable Development in Asia and Pacific, 2011-2015; and the Astana “Green Bridge” Initiative.

2. The Regional Implementation Plan is guided by the principles of the Ministerial Declaration and presents options for implementing it, organized around action areas based on priorities identified by the countries themselves. A periodic review of the implementation of the Plan based on information provided by members and associate members on a voluntary basis is required. A midterm review was presented to the Committee on Environment and Development in 2013.<sup>1</sup> The Committee took note of the efforts to monitor progress in implementing the outcomes of the Conference.

3. In accordance with resolution 67/3 of the Commission, the present document contains the final review of the implementation of the outcomes of the Conference, including the country-sponsored supportive initiatives. The review is based on voluntary responses given by members and associate members, in line with the provision of the outcomes of the Conference, which underscored that implementation of the outcomes would rely primarily on strong political commitment and effective policy actions at the national level. An outline of the main actions undertaken by the secretariat to support efforts aimed at implementing the Conference outcomes is also provided, together with a brief assessment of progress made in each programme area of the Regional Implementation Plan and of the needs of member States.

4. The six priority programme areas identified in the Regional Implementation Plan are taken into account in the efforts aimed at implementing the 2030 Agenda for Sustainable Development, such as the related regional road map. In this context, the future functions of the Ministerial Conference need to be redefined.

## **II. The Ministerial Declaration and the Regional Implementation Plan**

5. In the Ministerial Declaration on Environment and Development in Asia and the Pacific, 2010, members and associate members decided to work together on a range of sectoral and cross-sectoral issues to promote a

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<sup>1</sup> See E/ESCAP/CED(3)/4.

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\* E/ESCAP/MCED(7)/L.1.

\*\* The late submission of the present document is because of the need to include late submissions from member States to the voluntary survey necessary for reporting the progress achieved.

sustainable development path in the region. The Regional Implementation Plan for Sustainable Development in Asia and the Pacific, 2011-2015, was adopted to present options for action, following the principles contained in the Ministerial Declaration. Six priority programme areas were identified with the goal to enable ESCAP and other organizations to further assist member countries in the implementation of programmes and for member countries in the region to use elements of this plan for implementation as they may deem appropriate by promoting regional, subregional and national capacities for achieving sustainable development.

6. This review covers the responses to the implementation of the Regional Implementation Plan in the six programme areas, namely (a) harmonizing rapid economic growth, employment generation and environmental sustainability; (b) promoting sustainable urban development; (c) enhancing ecological carrying capacity; (d) improving energy resource management for sustainable development; (e) improving water resource management for sustainable development; and (f) enhancing the resilience of socioeconomic development to climate change. This review refers mainly to actions that are relevant to the implementation strategy defined in the Plan, namely resource mobilization and partnership building; capacity-building; access to and transfer of environmentally sound technologies; and stakeholder involvement. It also includes an assessment of progress made in each programme area and the needs of member States, as a basis for further decision-making.

7. The secretariat had conducted the review through a survey questionnaire to which members and associate members of ESCAP were invited to participate on a voluntary basis. The survey was circulated and made available online. It was designed to facilitate information gathering and reporting from line ministries involved in each of the areas identified in the Plan. Additionally, international and regional organizations were invited to report on related activities and initiatives. The results of the midterm review submitted to the third session of the Committee on Environment and Development, based on the initial circulation of the survey, are incorporated in the results set forth in the present document along with the submissions to the follow-up final survey questionnaire. The participating members and associate members in the review were: Armenia;<sup>2</sup> Indonesia;<sup>2</sup> Japan;<sup>3</sup> Kyrgyzstan; Mongolia;<sup>2</sup> Myanmar;<sup>2</sup> Nepal; Russian Federation;<sup>3</sup> Turkey; Tuvalu; Hong Kong, China;<sup>3</sup> and Macao, China.<sup>3</sup> The international organizations that submitted data collection forms were: United Nations Environment Programme; United Nations Educational, Scientific and Cultural Organization;<sup>2</sup> United Nations Centre for Regional Development;<sup>2</sup> United Nations Convention to Combat Desertification; United Nations Population Fund; United Nations Children's Fund; Asian Development Bank; Economic Cooperation Organization; South Asian Association for Regional Cooperation; and Economic Commission for Europe.

## **A. The six programme areas: response, impact and remaining challenges**

### **(a) Harmonizing rapid economic growth, employment generation and environmental sustainability**

8. Most members and associate members that responded to this section of the survey indicated that they had used measures related to inclusive green growth mechanisms, such as: resource efficiency, sustainable waste

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<sup>2</sup> Participated only in the final survey.

<sup>3</sup> Participated in both the midterm and final survey.

management, investment in clean technology, the application of an environmental impact assessment to facilitate the mainstreaming of environmental plans and programmes into national policy and creation of a circular economy. Some countries applied market-based instruments in addition to implementing other policy programmes in this effort. Notably, such actions as activities related to corporate social responsibility, green procurement and green jobs creation were also cited and appear to be gaining momentum. Increased importance was also placed on monitoring and reporting; one respondent, for instance, invested in software technology to improve the efficiency of its environmental monitoring and present reports on the state of the environment that highlight the relation between environmental performance and socioeconomic development. Establishing partnerships and strengthening regional cooperation, environmental awareness activities, such as the Asia Environmental Impact Assessment Conference and other platforms for knowledge dissemination involving peer learning, civil society and local community engagement were mentioned by respondents as key actions undertaken to help to integrate environmental sustainability into the political agenda.

9. The secretariat extended support to member States through resource mobilization, capacity-building activities and strategic partnerships. The partnerships, which provided an important modality, were developed with think tanks, national training agencies and universities in Brunei Darussalam, Kazakhstan, the Lao People's Democratic Republic, Malaysia, Mongolia, Pakistan, the Philippines, the Republic of Korea, Samoa, Thailand, Vanuatu and Viet Nam. Guidance was provided to policymakers for the development of high-level policy frameworks through the Low Carbon Green Growth Roadmap for Asia and the Pacific (developed with financial assistance from the Republic of Korea) and related policy tools and approaches for turning resource constraints and climate crisis into economic growth opportunities necessary for poverty reduction according to their national circumstances. The road map focused on: (a) practical approaches for mainstreaming relevant environmental and socioeconomic actions into national development plans; (b) incorporating environmental costs into market prices; (c) using economic and market-based instruments that are supportive of sustainable development and green growth; (d) promoting eco-efficient innovation through public and private investment in the application of environmentally sound technologies and infrastructure; (e) developing a circular economy stimulated by government-initiated investments and procurement, eco-industrial parks and sustainable waste management (waste for wealth and waste as resource for products); and (f) promoting corporate social responsibility and green jobs.

10. The Low Carbon Green Growth Roadmap was also included as key learning material in an innovative online capacity development programme<sup>4</sup> that provided capacity-building opportunities for more than 2,000 participants from more than 50 countries around the world during the period 2011-2015. Extending assistance for the training of trainers, based on a methodology developed by ESCAP, which combines on-site with online learning sessions and e-learning courses, helped to build skills related to the development and application of the green economy in the context of sustainable development and poverty eradication strategies, policies and tools. Under this methodology, more than 300 best practices and success stories were shared. In addition, expert group meetings, seminars and workshops were organized on such topics

<sup>4</sup> An assessment study conducted in 2015 concluded that, compared to traditional on-site training methods, the green growth e-learning facility saved \$1,020,000 and more than 2,110 tons of CO<sub>2</sub> emissions through online training sessions. Available from: <https://sustdev.unescap.org/files/resource/46d3a4affe4636025814027cf48a311d.pdf>.

as green economy, eco-efficiency indicators, integrating the three dimensions of sustainable development, big data for sustainable development and South-South partnerships. Pilot projects on solutions, such as a waste-to-resource strategy for the provision of energy in remote areas, demonstrated the validity of the concept, and an integrated economic modelling platform was developed together with the Commonwealth Scientific and Industrial Research Organization of Australia to support analysis of quality of growth, to establish an indicator framework for green growth. Several publications were developed on greening economic growth in the region, presenting a comprehensive analysis of the trends in resource use, material flow and efficiency, and providing knowledge support to aid in strengthening institutions and their policies to better facilitate and empower different stakeholder actions. A regional online network of green growth practitioners was formed to exchange knowledge and best practices. Because of this work and thanks to the interest and commitment shown by several countries, the Asia-Pacific region has become a front-runner for the proliferation of green growth-related policy frameworks.

11. The validity of the green growth approach was further confirmed by the adoption of “green economy” as a major theme of the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, from 20 to 22 June 2013, and the voluntary commitments tabled under the historic Paris Agreement, as a signal of a global consensus on the need for action on climate change. In addition, several institutions have stepped forward to promote green growth, providing technical support, analysis and financing to spur green growth approaches.

12. These investment and policy framework shifts had taken place in a context in which governments were seeking to revive their economies in the wake of the then converging food, fuel and energy crises. Support to member States in implementing green growth approaches remains critical, particularly through the sharing of experiences. Governments are facing difficulty in stimulating economic growth under the current condition in which the private sector is expected to respond to changing markets, consumer expectations and awareness and resource constraints, and poverty reduction remains a priority. The link between resource-use patterns, employment generation (including rural livelihoods), poverty and food security needs to be more explicitly recognized, as there are challenges in those interlinked areas as underlined by recent work of the secretariat. Based on the work of ESCAP regarding sustainable development, it is evident that high-level policy frameworks need to be coupled with efforts to promote innovation and transformation and engage all sectors of society. Otherwise, this transformation will not be possible.

**(b) Promoting sustainable urban development**

13. Several areas of work were identified in the responses to the survey under the area of sustainable urban development. Among them were sustainable urban planning and design; integration of municipal resources and waste recovery; financing measures for vertical urban housing and infrastructure for the poor; and mainstreaming climate change resilience into urban planning. Key actions reported were mainly related to the introduction of low-carbon measures in urban dwellings, such as increasing the use of renewable energy in buildings and making them more energy-efficient, sustainable cooking solutions, promotion of sustainable housing approaches, and equal access to infrastructure. Another action cited was the use of a computer-aided sustainability evaluation tool. Establishing networks and work groups comprised of different types of stakeholders was regarded as a successful method for enhancing capacity-building in communities and raising

awareness of issues related to equality, together with the use of ecological resources. Notably, one landlocked country commended this cooperative approach as being beneficial for tackling inequalities related to access to water and sanitation, and for developing mechanisms to support vulnerable and marginalized groups.

14. The secretariat has undertaken many actions to support member States in the promotion of sustainable urban development, including, among them, strengthening cooperation and capacity among local authorities; engaging in technical cooperation; and supporting regional and municipal-level knowledge-sharing and norm-setting of key urban development issues. In cooperation with the United Nations Human Settlements Programme (UN-Habitat) and the Government of Indonesia, the secretariat supported regional preparations leading to the United Nations Conference on Housing and Sustainable Urban Development (Habitat III), held in Quito from 17 to 20 October 2016, including the compilation of the regional report for the Asia-Pacific region, which was fed into the process for the development of the New Urban Agenda. Back-to-back with the High-level Regional Preparatory Meeting to Habitat III for Asia-Pacific, the secretariat also convened the Sixth Asia-Pacific Urban Forum in Jakarta on 21 and 22 October 2015. As with fifth session, organized by the secretariat in 2011, the Forum brought together more than 900 participants, including ministers, mayors and other government officials, representatives from academia, urban professionals, the private sector, civil society, grassroots leaders, older persons, youth and international organizations, to discuss persistent and emerging issues related to sustainable urban development in the Asia-Pacific region. The Forum adopted the Jakarta ‘Call for Action’ on sustainable, inclusive and resilient urban development, highlighting priority issues for the region to be considered in the New Urban Agenda and in the implementation of the 2030 Agenda.

15. The secretariat has conducted research and analytical work leading to the development of several publications and knowledge products. In a follow-up on the outcomes of the United Nations Conference on Sustainable Development that focus specifically on sustainable cities, an assessment study on green urbanism reviewed the status of ecocity planning in the region with the objective to develop new strategies for sustainable urban planning based on the integration of the three dimensions of sustainable development, namely economic, social and environmental, increased livability and quality of life. Notably, the secretariat prepared the flagship *State of Asian Cities* and *State of Asia-Pacific Cities* reports in close partnership with UN-Habitat and recruited various experts to guide the preparations and serve as advisers on different topics and subregional issues. Through partnerships with United Nations agencies, academia, research institutes and foundations, several policy guidelines, manuals and studies were developed on such topics as pro-poor urban climate resilience in Asia and the Pacific, greening building codes, waste-to-resource strategies, urban wastewater management, and eco-efficient and socially inclusive infrastructure.

16. Policy dialogues, seminars and workshops were organized at different levels to deal with gaps between the global commitment and local implementation and in financing and capacities, which limit the ability of local government to effectively respond to challenges and meet the expectations associated with global mandates, and to review wider issues, such as urban infrastructure development and financing mechanisms with regard to the implementation of the 2030 Agenda (with a focus on South Asia), and strengthening sustainable urban infrastructure management and development of sustainable and inclusive cities (with the creation of a multi-stakeholder platform for Central Asia, with support from the Russian Federation).

17. Several pilot projects were supported by the secretariat with the aim to demonstrate the validity of available sustainable solutions to urban development. For instance, ESCAP has been implementing the project entitled “Pro-poor sustainable solid waste management”, which focuses on the establishment of integrated resource recovery centres in developing countries, such as Bangladesh, Bhutan, Cambodia, Indonesia, Pakistan, Sri Lanka and Viet Nam. The objective of this project is to promote an attitudinal change that treats both inorganic and organic waste as a resource from which governments can earn revenue and create employment, while at the same time protect the environment. The project, which focuses on secondary cities and small towns, also links solid waste management with carbon financing to increase the profitability of the integrated resource recovery centres and explores waste-to-energy approaches and linkages between wastewater treatment and solid waste management. Also thanks to the knowledge generated through this initiative, the secretariat has supported two member States in the development of nationally appropriate mitigation actions targeting the waste sector.

18. The secretariat has also been implementing the project entitled “Integrated resource management in Asian cities: the urban nexus”, together with the Deutsche Gesellschaft für Internationale Zusammenarbeit. The project aims to integrate the planning and management processes of the energy, water and food sectors and is expected to contribute substantially to the long-term sustainable development of rapidly growing secondary cities in the region with support extended by China, Indonesia, Mongolia, the Philippines, Thailand and Viet Nam.

19. In partnership with local experts in the Philippines, ESCAP developed a design for eco-efficient buildings that are also disaster and climate change resilient. The project fosters the use of locally available sustainable materials for the construction of school buildings, which often serve as essential community infrastructure in times of disasters. The secretariat has also implemented many initiatives involving wastewater treatment and management. They include the following: a project dedicated to improving the resilience of community-based integrated water supply and wastewater treatment systems to climate change; pilot projects that integrate rainwater, storm water and wastewater management systems in the construction of green school buildings; and demonstration projects on rainwater harvesting, wastewater treatment and developing eco-efficient urban water infrastructure. Various aspects of the project are being used as inputs for the development of a national road map for eco-sustainable water infrastructure and a strategy paper on eco-efficient urban water infrastructure development.

20. Following decades of increasing urbanization rates, the region is projected to experience an unprecedented level of demographic, economic and social shifts that require appropriate national urban agendas and policies. Cities in Asia and the Pacific have served as engines for economic growth, social transformations and innovations that have reshaped the region and the world. However, they are still facing a range of challenges, such as vulnerability to climate change and natural disasters; rising inequalities and increases in informal settlements; lack of governance capacity and rule of law leading to insecurity; steep levels of material consumption and waste generation; lack of access to water and sanitation; and growing levels of pollution that lead to high economic and health costs.

21. Therefore, the successful implementation of the 2030 Agenda in Asia and the Pacific depends on the way urbanization in the region is managed. The New Urban Agenda provides an opportunity to advance the implementation of

Sustainable Development Goal 11<sup>5</sup> and the other Sustainable Development Goals that require local action. For this purpose, integrated approaches are crucial in the management of key resources, such as food, energy and water. Some of the key issues that need to be dealt with in order to grasp the potential role of cities in the drive to achieve sustainable development are the following: pursuing effective multilevel governance and integrated solutions; strengthening the enforcement of rules and regulations; closing the data gap; establishing partnerships and fostering stakeholder participation; knowledge-sharing for the replication of successful solutions; and financing for sustainable, resilient and inclusive infrastructure.

**(c) Enhancing ecological carrying capacity**

22. Regarding ecological issues, member States indicated that they had been directly involved in reporting activities connected to the following: climate change adaptation; management of natural resources, such as freshwater ecosystem services; traditional farming and indigenous culture; and mountain ecosystems. Key actions identified in that regard included partnership approaches towards poverty reduction in rural areas and development of national policies that specifically target the resilience of landlocked developing countries and small island developing States. The relevant initiatives undertaken by member States emphasize a participatory and community-driven approach for enhancing natural resources conservation and investment in agriculture development, both traditional and organic. One respondent, for instance, reported on work aimed at empowering indigenous communities, which involved including them in the monitoring and enforcement of the national fisheries management plans. Other member States reported on their countries' efforts to engage local communities in forestry conservation and management and to promote participatory irrigation management in Asian countries through technical cooperation with several international networks and institutions.

23. Support provided to member States in this area was delivered through regional and subregional partnerships, technical cooperation support and substantial investments in capacity-building. Action areas included the establishment of appropriate management arrangements, partnerships and national policies, and fostering dialogue among different stakeholders, including government officials of different ministries, to explore the barriers to investment in ecosystem services based on economic arguments. A research project identified ecosystem services critical to the national development goals of Viet Nam. Direct technical support for creating an enabling environment for investment was provided to Indonesia and Viet Nam in the areas of policy development and ecosystem price setting. Following a period of growing interest and knowledge, the secretariat has supported policy dialogue across the region by issuing publications on payments for ecosystem services. This work was complemented by support given to national statistical offices by ESCAP, at the request of specific countries, in building their capacity to establish an integrated system of environmental and economic accounting, with satellite accounts for specific natural resources established.

24. The Centre for Alleviation of Poverty through Sustainable Agriculture of ESCAP has continued to function as the regional hub for knowledge-sharing, capacity-building and South-South cooperation with regards to sustainable agriculture, food security and rural development in Asia and the Pacific. During the period 2010-2016, the Centre trained more than

<sup>5</sup> Make cities and human settlements inclusive, safe, resilient and sustainable.

2,000 government officials, researchers and practitioners in a series of capacity-building events related to emerging and persistent challenges in pursuing eco-efficient agricultural development. It also manages the Network for Knowledge Transfer on Sustainable Agricultural Technologies and Improved Market Linkages in South and Southeast Asia (SATNET Asia), a vibrant expert network that facilitates innovation in sustainable agriculture policies, practices and technologies for poverty reduction, food security and inclusive rural development and connects with more than 50 institutions and 1,400 individuals across the region.

25. The North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) is a comprehensive intergovernmental cooperation framework supported by the secretariat, which addresses environmental challenges in the East and North-East Asia subregion. More than 100 protected areas are spread out along and across international borders among North-East Asian countries. To maintain those areas, strengthened transboundary cooperation is required through a partnership platform that brings the stakeholders together to share information and undertake joint action. Under its Nature Conservation Strategy, NEASPEC strives to contribute to biodiversity conservation in the subregion by ensuring the survival of six flagship species; promoting transboundary and intergovernmental cooperation for nature conservation among its member States; and enhancing a coordinated mechanism for the conservation of target species and their habitats. Several expert group meetings, workshops, field surveys and studies have been organized to strengthen these transboundary efforts.

26. The continuing trends relating to climate change, land-use change, exploitation of oceans and seas and biodiversity loss underline the need for governments to take more meaningful action in these areas. Ocean ecosystems are pivotal to the character and well-being of island countries, representing the most tangible asset for their present and future generations. Natural capital in many Pacific island countries has steadily eroded over the past few decades because of poor waste management; overexploitation of natural resources; abundance of invasive species; and increasing damage from natural disasters and climate change. Resource-extractive activities, such as commercial fishing, logging and mining, have resulted in extensive environmental degradation and loss of biodiversity. Although forest cover is stabilizing, in many areas, the flow of ecosystem services has stopped or been substantially reduced in quality and contribution. Natural forests, for example, are being replaced by plantation forests. Regarding agriculture, there is need to expand access to knowledge and exchange of experiences, given the trends in the light of growing resource constraints reducing access to natural resources in rural communities and increasing pressures on natural areas to provide agro-industrial products and to produce food at a time when the risk of extreme climate events is growing. The need for analytical research, capacity-building, and knowledge-sharing and networking in the area of sustainable agriculture continues; work in this area should promote the use of integrated approaches towards achieving the Sustainable Development Goals by highlighting the multiple benefits of sustainable agriculture, which potentially contributes to Goal 2<sup>6</sup> and to other Sustainable Development Goals that are related to health, water, energy, ecosystems and climate change in a synergetic manner. Regional support in dealing with transboundary ecosystems remains critical, particularly in relation to oceans. For this purpose, stakeholder engagement is crucial to increase ownership, awareness, action and investment.

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<sup>6</sup> End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

