



Communiqué G7 Toyama Environment Ministers' Meeting

**Toyama, Japan
May 15-16, 2016**

1. We, the G7 Ministers and high representatives, and European Commissioner responsible for the environment, met in Toyama from May 15 to 16, 2016. We were joined by heads and senior officials of the Global Environment Facility (GEF), International Council for Local Environmental Initiatives (ICLEI) – Local Governments for Sustainability, the Organisation for Economic Co-operation and Development (OECD), the United Nations Environment Programme (UNEP), United Nations Global Compact, and 100 RESILIENT CITIES, representatives from the cities of Bristol, Firenze, Frankfurt am Main, Higashimatsushima, Kitakyushu, Toyama, Vancouver, and Vitry-le-François, and the governor of Toyama prefecture.
2. The year 2015 saw the adoption of landmark global outcomes, including the 2030 Agenda for Sustainable Development (2030 Agenda) and the Paris Agreement on climate change, the Sendai Framework for Disaster Risk Reduction and Addis Ababa Action Agenda. In 2016, we have to take action with a view to implement these instruments, and therefore the G7 Toyama Environment Ministers' Meeting (EMM) plays a significant role in 2016. In this meeting, the chair, the Minister of the Environment of Japan, expressed the basic viewpoint that we should identify a clear pathway to low-carbon, climate resilient and sustainable society. This pathway should draw upon sharing related policies and measures of our past environmental policy experiences and knowledge with all countries following the significant progress that was made in 2015. Discussions focused on various environmental issues that must be tackled, considering the urgency of addressing climate change and the degradation of the environment.
3. At the beginning of the discussions, Japan explained the current state of the remediation and restoration work in areas affected by the Great East Japan Earthquake and the accident at TEPCO's Fukushima Daiichi Nuclear Power Station. Japan provided information about the removal of radioactive contamination that has been in progress, which has led to eventual lifting of evacuation orders in parts of the region and reconstruction of local economies. Other G7 Ministers and the European Commissioner welcomed this report and the efforts being made by Japan. Japan expressed its gratitude for the support from the international community including G7 member states. Furthermore, we express our sincere solidarity with the people affected by the recent devastating earthquakes in Kumamoto and Oita areas of Japan, as well as with all those who are suffering from natural disasters and the environmental degradation caused by them.
4. Seven themes were discussed in the meeting, namely the 2030 Agenda, Resource Efficiency and the 3Rs ("Reduce", "Reuse" and "Recycle"), Biodiversity, Climate Change and Related Measures, Chemicals Management, the Role of Cities, and Marine Litter.

2030 Agenda for Sustainable Development

Implementation of SDGs as G7 Ministers of Environment

5. We welcome the adoption of the 2030 Agenda at the United Nations Summit in September 2015 and stand ready to promote its implementation at all levels. The 2030 Agenda integrates the three dimensions of sustainable development, (namely environmental, social and economic dimensions); applies universally to all countries regardless of their level of development and aims to ensure no one will be left behind. We acknowledge that the Sustainable Development Goals (SDGs) reflect the integrated nature of the 2030 Agenda and therefore lie at the core of this new agenda, and achievement of the 2030 Agenda and its SDGs will be critical to the people, planet and prosperity for the upcoming 15 years and beyond. The environment is one of the three dimensions of sustainable development and within our mandate as G7 environment ministers, we have important active roles in implementing the SDGs so that all dimensions are addressed in a balanced manner. We also commit to advancing a number of specific measures to achieve the SDGs.
6. The global partnerships emphasized in the 2030 Agenda and in the Addis Ababa Action Agenda, an integral part of the 2030 Agenda, can help facilitate cooperation with various stakeholders. We acknowledge that it is crucial for governments to promote cooperation with other key stakeholders, such as private businesses and finance, civil society, local authorities and academia, and collaborate with international networks and existing initiatives to effectively implement the SDGs. Engaging businesses is particularly key as the impacts will be significant when they implement SDGs as their core activities. We also recognize the importance of cooperation with the UN Global Compact and other business networks that are committed to advancing the SDGs through their activities, such as by dissemination of guidelines on SDGs.

Measures to promote the environmental dimension of SDGs implementation by G7 members

7. Prior to the G7 Toyama EMM, information was shared on plans and measures that we have taken to promote domestic implementation of the SDGs at this stage, based on our respective national circumstances. Some countries have incorporated SDGs into their national strategies, established relevant institutional arrangements, and created mechanisms to engage stakeholders in the implementation of the SDGs. Such information is valuable for us to acknowledge notable activities by the G7.
8. We note on-going activities including France's work to establish a comprehensive implementation framework involving all ministries and all stakeholders; the revision of the National Sustainable Development Strategy in Italy in light of the SDGs; Canada's public consultation process on its Federal Sustainable Development Strategy; the United States' high level process to review the SDGs and identify how to best measure domestic progress in their implementation; in the United Kingdom, formulation of a 25-year environment plan for England; Germany's whole of government approach to review the National Sustainable Development Strategy with the aim to translate the SDGs into the German context, involving all parts of society and headed by the Federal Chancellery; and Japan's plan of an inter-ministerial national implementation system and establishment of a stakeholders' meeting as a mechanism to exchange information and to acknowledge actions in environment related areas by its first movers.

9. We welcome measures taken by different countries respecting differences in national priorities and institutional structures. The outcome of the G7 Toyama EMM will be shared when appropriate at international fora such as the second session of the UN Environment Assembly of UNEP, the High-level Political Forum on Sustainable Development, the UN General Assembly and the UN Economic and Social Council. We encourage measures by all countries and stakeholders aimed at achieving the SDGs.

Collaborative activities by G7

10. For the purpose of promoting implementation globally, we will collaborate with each other on relevant actions. Through this collaboration, we will demonstrate our strong commitment to environmental issues in and beyond G7 members.
11. When designing voluntary collaborative activities, we recognize the benefits of focusing on standout activities that could catalyze other countries' actions on the SDGs. We therefore encourage the continuation of ongoing discussions and collaborations between working-level officials on such specific collaborative activities.
12. To identify collaborative activities, we will consider highlighting activities in on-going international initiatives. These could include activities under the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) which noted that all countries should promote sustainable consumption and production patterns with developed countries to take the lead. With reference to the SDG 12 on Sustainable Consumption and Production (SCP), there are various additional pathways through which SDG 12 could be achieved and these could have synergistic effects with other goals such as SDG 8, which explicitly includes SCP, on inclusive and sustainable economic growth. We note that SCP is an area which necessitates multi-stakeholder partnership not only between public institutions but with the private sector, civil society, and academia as producers and consumers and that SCP is on the agenda of all countries regardless of their level of development. Therefore we recognize that SCP activities taken by those sectors will foster sustainable supply chains. Further consideration of possible areas for collaboration in SCP will be needed. Those could include cooperation on the development of comparable methodologies to measure the climate and other environmental benefits of reducing wasted food, information regarding the environmental burden from products, "second price tag", the modification of best-before dates, and the internalization of external costs.

Promoting SDGs implementation in other countries

13. We recognize the importance of providing technical and cooperative assistance to other countries in need, so they can achieve the SDGs. Sharing the experience and knowledge that we have acquired in the development of environmental policies could contribute to the implementation of the SDGs in other countries.

Resource Efficiency and the 3Rs

Progress of G7 initiatives on resource efficiency and the 3Rs

14. We recognize meaningful progress on initiatives by the G7 based on the series of commitments

including the 2008 Kobe 3R Action Plan, the G8 Hokkaido Toyako Summit Leaders Declaration, and the 2015 G7 Elmau Summit Leaders Declaration. Nevertheless, there is a need to advance our initiatives further. We underline our strong commitment to continue implementing our initiatives for resource efficiency and the 3Rs, including the G7 Alliance on Resource Efficiency.

Enhancement of decoupling between economic growth and natural resource utilization

15. We emphasize that enhancing decoupling between economic growth and natural resource utilization is necessary for the implementation of the Paris Agreement and the SDGs. We will make every effort to prevent unsustainable consumption of natural resources and associated environmental deterioration from extending to our future generations.

Strengthening competitiveness and job creation

16. We emphasize that the improvement of resource efficiency and promotion of the 3Rs also contributes to strengthening competitiveness, economic growth, security of supply and job creation.

Welcoming the work by UNEP-IRP and OECD

17. We also recognize the significant potential for increasing resource efficiency through concerted action, and its numerous associated benefits not only for the environment, but also for economic growth, technological innovation, resource security and social development as indicated by the synthesis report by UNEP-International Resource Panel (IRP), and the policy report by OECD which were prepared at the request of the Elmau Summit. We welcome the work by UNEP-IRP and OECD in this regard, and invite them to continue to support policy makers through their future activities to further boost the policy of enhancing resource efficiency and the 3Rs. We will review the reports and will draw conclusions next year under the Italian presidency.

Acknowledging the G7 Alliance workshops

18. Acknowledging the importance of the G7 Alliance on Resource Efficiency to share best practices for resource efficiency and create networks among stakeholders, as shown by the workshops held in 2015 and 2016 by Germany, the UK, Japan, and the US, we will continue to cooperate through the G7 Alliance on Resource Efficiency.

Integration of related environmental issues and collaboration among stakeholders

19. We recognize that promoting resource efficiency and the 3Rs contributes to tackling various environmental issues such as reducing greenhouse gas (GHG) emissions and limiting water footprints, as well as addressing competitiveness, economic growth, security of supply and job creation. In particular, we note that global efforts on resource efficiency and the 3Rs also contribute to the prevention and reduction of marine litter from land-based sources. We also welcome the Lima-Paris Action Agenda initiatives and call on businesses to take an active part in these dynamics. We reaffirm the importance of partnerships with all countries and commit to disseminate our experiences on resource efficiency and the 3Rs, including through the G7 Alliance on Resource Efficiency.

The Toyama Framework on Material Cycles

20. We reaffirm the need to demonstrate G7's active leadership, and adopt the "Toyama Framework on Material Cycles" as in the Annex.

Biodiversity

Significance of biodiversity

21. Biodiversity plays a vital role for maintaining life-sustaining systems, and therefore is of paramount importance to all life on Earth including human beings. Biodiversity and the entirety of ecosystems constitute the natural capital that supplies us with food, raw materials, medicine, shelter, and water, mitigates or prevents natural disasters, regulates the climate, and provides us with opportunities for recreation, among a myriad of ecosystem services. We recognize that the loss of biodiversity and degradation of ecosystems constitute both an environmental problem, as well as a socio-economic problem which reduces human well-being. We also recognize the important role that biodiversity related conventions play.

Shift in our socio-economic system

22. As indicated by the Economics of Ecosystems and Biodiversity (TEEB), and highlighted by “The Future We Want” declaration, adopted at the RIO+20 summit and in the 2030 Agenda, reaching an effective solution to address the degradation of ecosystems and their services and biodiversity caused by human activities such as land consumption, unsustainable use and pollution, requires a shift in our socio-economic system as well as in our individual behavior.

Incorporation on the values of biodiversity

23. More specifically, we need a transition to socio-economic systems making conservation more valuable than degradation, and sustainable use more valuable than unsustainable use. In order to achieve this, we recognize that important challenges are to take into account the values of biodiversity and ecosystems and their services, to incorporate them, in an appropriate manner, across our economies and policy decision-making.

Economic approaches

24. TEEB demonstrates the importance of an interdisciplinary approach to assess biodiversity and ecosystem services including biophysical sciences, social sciences, and economics. When included in a broad-based strategy for the conservation and sustainable use of biodiversity, economic approaches – ranging from specific economic measures such as payment for ecosystem services (PES), product certification schemes, tradable permits, taxes, subsidies, and other market-based measures, to the development and implementation of national and international approaches such as natural capital accounting – can contribute to reducing biodiversity loss and ecosystem degradation.

The foundation for economic approaches

25. Economic valuation of natural capital and ecosystems services is an essential contribution to these interdisciplinary approaches, and can be important, for example, in the context of nature-based solutions including ecosystem-based adaptation to climate change (EBA) and ecosystem-based disaster risk reduction (Eco-DRR). We welcome the implementation of biodiversity conservation actions applying these approaches in various countries, not only through central governments, but also through local governments, private sector activities, and purchasing decisions made by citizens.

Note for the effective implementation

26. However, given the various challenges for the effective implementation of economic and other approaches, we note the need for a strategic approach to adequately reflect the value of ecosystems as well as ensure effectiveness and avoid unintended negative effects. For example, biodiversity offset could have adverse impact if it does not strictly apply mitigation hierarchy (avoid, reduce/mitigate, offset impacts on biodiversity).

Access and benefit sharing

27. With reference to economic and other approaches, we recognize the importance of promoting fair and equitable sharing of the benefits arising from the utilization of genetic resources and promoting appropriate access to such resources, as internationally agreed.

Sustainable use of wildlife

28. As economic instruments complement other approaches, we reaffirm that sustainable use including the legal commercial trade of wildlife may be beneficial to biodiversity conservation by engaging local communities. In this context, we reaffirm our commitment to effective implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Tackling illegal trade in wildlife

29. The illegal trade in wildlife remains a major threat to the survival of certain species of wildlife, and has adverse impacts not only on conservation but also on the social and economic issues, including the loss of our natural and cultural heritage, mainly in range states. Hence we stress the importance of taking and supporting action to combat illegal trade in protected species of wild fauna and flora, including administrative, legislative and other measures, in line with previous commitments to the UN General Assembly, the First UN Environment Assembly, and at the London and Kasane Conferences on the Illegal Wildlife Trade as well as last year's Summit. We also take note of the efforts at other high level conferences to fight against illegal trade in wildlife.

Tackling illegal logging

30. Recognizing that illegal logging and associated trade contribute to environmental degradation, biodiversity loss, and deforestation, we are determined to take appropriate measures to improve forest governance, combat illegal logging and associated trade and to support the use of legally harvested and sustainably produced timber, as an important part of the international efforts to halt deforestation and forest degradation, and to conserve biodiversity.

Pursuing the economic approaches

31. Recognizing the usefulness of economic approaches for mainstreaming biodiversity, we commit to further develop and advance these mechanisms, thereby contributing to address the topic of "mainstreaming biodiversity for well-being" across sectors, including agriculture, forests and fisheries, and to the Aichi Biodiversity Targets of the Convention on Biological Diversity (CBD) and the SDGs. Furthermore, we decide to pursue these economic approaches through various opportunities for continuous exchange of ideas, good practices and capacity building, including, for example, in the work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

Improving efficiencies of relevant conventions and UN organizations

32. We also commit to further improve efficiencies of biodiversity-related conventions and relevant United Nations organizations by promoting synergies among them, through appropriate measures to strengthen policy coherence at all relevant levels and across economic sectors and to enhance coordination and cooperation among multilateral environmental agreements.

Conserving and sustainably using marine biodiversity beyond national jurisdiction

33. We note the importance of promoting both regional and global efforts to conserve and sustainably use marine biodiversity, inter alia with regard to ocean governance. We also support and will engage constructively in the UN process aimed at the development of an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.

Climate Change and Related Measures

Paris Agreement

34. We welcome the adoption of the Paris Agreement on climate change at the twenty-first session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC). The Agreement is applicable to all Parties and covers mitigation, adaptation, means of implementation, and transparency in a balanced manner. It represents a historic turning point for the global climate change measures and it aims to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty. It defines long-term global goals, including holding the increase in the global average temperature to well below 2°C and pursuing efforts to limit the increase to 1.5°C above pre-industrial levels. The Agreement is also an important milestone for adaptation establishing a global goal with the aim of enhancing capacity and climate resilience, and reducing climate vulnerability. It further has a provision of making finance flows consistent with a pathway towards low GHG emissions and climate resilient development. The Agreement sets a long term framework under which Parties will regularly review progress and ratchet up their efforts to achieve the Agreement's long term goals. An enhanced transparency framework established under the Agreement plays a key role for effective implementation by each country.

35. We welcome the fact that more than 170 Parties signed at the signing ceremony held in New York in April and parties have begun to deposit instruments of ratification, showing their strong political will to address climate change. We affirm the importance of early entry into force and balanced implementation of the Agreement, with participation of all Parties. We are determined to show leadership with early and steady implementation of our nationally determined contributions by enhancing national measures in each country and look forward to securing progressively more ambitious action under the Agreement. We intend, and also encourage other Parties, particularly the major emitters, to take the domestic steps necessary in order to join the Agreement as soon as possible.

36. As the first meeting since the Paris conference of the Ad-hoc Working Group on the Paris Agreement and of the UNFCCC subsidiary bodies opens in Bonn, we call on all Parties to

actively engage in the work to help support the effective implementation of the Agreement, including development of detailed rules. We also strongly support Morocco's efforts to make the UNFCCC COP-22 a meeting emphasizing of implementation and action, and in this context we encourage all Parties and stakeholders to come to Marrakech prepared to showcase their ambitious climate plans and actions.

Long-term low GHG emission development strategies

37. We acknowledge the important role of the long-term low GHG emission development strategies for setting a framework in which countries, also informed by the global stocktakes, can plan their future contributions.
38. We recognize the importance of G7 members' leading efforts in developing long-term low GHG emission development strategies. Recognizing the IPCC Special Report on 1.5°C of global warming and related emission pathways and the UNFCCC facilitative dialogue on mitigation ambition in 2018, we commit to develop and communicate our strategies to the UNFCCC Secretariat, as soon as possible and well within the schedule provided by the COP21 decision. Taking the lead in communicating these strategies will send strong signals to the private sector and other countries for the necessary transition towards a low-carbon society. Long-term low GHG emission development strategies are an essential means for reaching the long term goals of the Paris Agreement and the necessary balance between anthropogenic emissions by sources and removals by sinks of GHGs in the second half of this century.
39. For developing these long-term low GHG emission development strategies, and cooperating with other countries, we acknowledge the importance of research on future scenarios, strategies, and targets of each country, as well as knowledge sharing through researchers' networks. We commit to deepen our exchange in this regard from this year on.

Mitigation measures including market-based approaches

40. In order to realize a low-carbon society, we recognize that it is necessary to take bold national measures by mobilizing an effective and efficient mix of policy tools and to work with all stakeholders and levels of government. We support the continuation of the Lima-Paris Action Agenda and call for the mobilization of state and non-state actors to be maintained and amplified in support of concrete pre-2020 actions. We are committed to actively engage in new coalitions and initiatives launched during COP21.
41. We recognize the necessity to realize more sustainable economic systems, where there is shared awareness on mainstreaming environmental friendliness. Greater innovation and enhanced information are essential components to minimize environmental degradation in all sectors of the economy and at all levels of society, including at the household level. Transformation of the economic system through promoting environmental, social and governance (ESG) investments, and greening of financial systems are recognized as necessary to realize low-carbon societies. Greening financial systems in all aspects (banking, bonds, insurance, institutional investors, capital markets) is key to guaranteeing short- and long-term sustainable investments and mobilizing the private sector, new donors and multilateral development banks.

42. Carbon pricing, including market-based approaches, has already been introduced in many countries and jurisdictions as a policy tool to reduce emissions cost-effectively and to support a transition to a low-carbon economy. We emphasize that such measures are effective means of enhancing innovation and low-carbon investment for long-term emission reductions, and thus should be further promoted. We expect the first Strategic Dialogue of the Carbon Market Platform that will take place in Tokyo will enable governments to share best practice and views on carbon pricing including market-based approaches, which can incentivize such innovation and investment.
43. The development and deployment of innovative technologies is essential to carry out transformational and long-term measures to address climate change. Some of these technologies are already at their deployment stage. Policy support is required, especially for the diffusion of low-carbon technology and products at its initial phase in all countries. We recognize that market mechanisms can support diffusion of leading low-carbon technologies and products globally. We encourage G7 partners and other governments to share good practices and lessons learnt through the implementation of domestic and international market instruments, inter alia Japan's Joint Crediting Mechanism (JCM). We recognize the necessity of robust earth observations to enhance our ability to measure and monitor GHG emissions.

Measures with co-benefits

44. We recognize that there can be significant co-benefits from mitigation actions for adaptation, air pollution, resource efficiency, and other environmental, economic and social concerns. Identifying and adopting measures with co-benefits can facilitate further mitigation policies. It is widely recognized that effective emission reduction measures are in place at the national level in many countries, including measures covering transportation sources, and that these measures must have efficient compliance and enforcement mechanisms if we are to realize the public and environmental health and climate co-benefits of climate actions.
45. Resource efficiency and the 3Rs offer an important opportunity to address the gaps in often overlooked areas with significant GHG emissions, such as the supply chain of the manufacturing sector, while also increasing economic development and competitiveness.
46. In particular, we recognize the importance of mitigating emissions of short-lived climate pollutants (SLCPs), including black carbon, methane, ground-level ozone and hydrofluorocarbons (HFCs). Measures to reduce SLCPs can help slow the rate of near-term warming, while realizing significant benefits for human health and food security. In this regard, we reaffirm the importance of working with partners including under the Climate & Clean Air Coalition and the Global Methane Initiative. We also support the adoption of domestic measures, as appropriate, to mitigate methane emissions including in the oil and gas sector and to improve the environmental performance of heavy- and light-duty vehicles.

HFCs and other fluorocarbons

47. On measures to address fluorocarbons, we welcome the decision in Dubai by the parties to the Montreal Protocol to address HFCs under the Montreal Protocol, and support adoption of a Montreal Protocol HFC phase-down amendment in 2016. We also recognize the importance of implementing concrete measures to minimize emissions throughout the lifecycle of HFCs and

other fluorocarbons, including through the management of equipment and appliances that use these substances during their operations and at the time of their disposal.

International aviation and maritime transport

48. Recognizing the significance of projected growth of emissions from international aviation and maritime transport, we welcome the efforts of states through the International Civil Aviation Organization (ICAO) and International Maritime Organization (IMO) to reduce emissions from international aviation and maritime transport and call on the member states to implement effective measures without delay. In particular, we emphasize the importance of reaching an agreement on a global market-based measure at the 2016 ICAO Assembly in order to enable carbon neutral growth from 2020.

Actions and cooperation on adaptation

49. Recognizing the need for adaptation actions to prepare for and respond to the urgent threat of climate change impacts on human life and health, and socio-economic systems and ecosystems, both terrestrial and marine, we affirm the importance of mainstreaming climate change adaptation into policies, investments and programs, as well as of enhancing domestic governance and institutions for the effective implementation of national adaptation planning processes in collaboration with internal and external governmental bodies. We also recognize the importance of enhancing scientific knowledge on climate change impacts, further improving methodologies on climate change risk assessments or vulnerabilities analyses and effectiveness of adaptation measures, and sharing this knowledge among countries including through the development of National Adaptation Plans (NAPs).
50. Recognizing the importance of adaptation actions taken by various stakeholders including civil society and the private sector, we affirm the value of information platforms and communication among relevant stakeholders. We also acknowledge that it is important for national, subnational and local governments to work closely with each other for effective adaptation planning and action. Moreover, we realize the importance of sharing adaptation knowledge and experiences of subnational and local governments and other stakeholders with the international community.
51. We also recognize the importance of promoting internationally consistent methodologies for climate change risk assessments or vulnerabilities analyses.

Support and cooperation to developing countries

52. We reaffirm the importance of the on-going support to developing countries. We continue our efforts to provide and mobilize increased climate finance from public and private sources. We encourage other countries to provide or continue to provide and mobilize climate finance. In this regard, we reaffirm our efforts to work on a balance for mitigation and adaptation support. We emphasize our willingness to promote these efforts through international cooperation, working jointly with countries outside the G7 and with other international actors such as multilateral development banks and the private sector. We look forward to working with our partners to support domestic preparations for the delivery of the national climate plans in developing countries in need, with a view to identifying mitigation opportunities that would contribute to closing the emissions gap globally and informing their active engagement in the five-year ambition cycle to ensure we are on track to meet the long-term goal agreed in Paris and to

support adaptation actions to enhance adaptive capacity, strengthening resilience and reducing vulnerability to climate change.

53. We recognize the importance of capacity building support to enhance the institutional capacity of developing countries, in particular those with the least capacity, to take effective climate change action. Such support will include help to build institutional capacity in developing countries to enable tracking of GHG emissions and progress towards NDC, and to improve transparency of efforts by countries. In this regard, we are looking forward to arrangements to be made by the GEF to establish and to operate a Capacity-Building Initiative on Transparency and welcome the GCF's readiness program in support of the implementation of INDCs.

Gender equality and climate change

54. We recognize the importance of assessing the different impacts of climate change on women and men. As women are often amongst the most disproportionately affected, we encourage their inclusion and that they play a key role in shaping climate change policies on mitigation and adaptation.

Chemicals Management

International chemicals management

55. We recognize that various efforts are being made by G7 members towards the Goal reaffirmed in Rio+20 to achieve, by 2020, the sound management of chemicals throughout their lifecycle and of hazardous waste in ways that lead to the minimization of significant adverse effects on human health and the environment, notably under the auspices of the Basel, Rotterdam, Stockholm and Minamata Conventions and the Strategic Approach to International Chemicals Management. Risks posed by some chemicals are one of the greatest concerns among people of the G7 members, and with the adoption of the 2030 Agenda, we recognize the importance of maintaining continuous efforts to implement the actions described in the Plan of Implementation of the World Summit on Sustainable Development and to promote exchange of information on those related efforts.
56. We welcome and will remain engaged in accelerating the ongoing international discussions under the Strategic Approach to International Chemicals Management on the sound management of chemicals and waste beyond 2020 including the intersessional process which was initiated at the Fourth International Conference on Chemicals Management. We recognize the importance of responding not only to existing issues, but also to new and emerging issues, identifying new risks to human health and the environment and reducing those risks. We also recognize the importance of focusing attention and of calling for appropriate action at upcoming fora, including the United Nations Environment Assembly, and continuing on-going efforts on cooperation on issues of particular concern such as chemicals in products, lead in paint and endocrine-disrupting chemicals to protect humans and ecosystems and their constituent parts that are especially vulnerable. We also recognize the important role of the Conference of the Parties to the Basel, Rotterdam and Stockholm Conventions on the continued relevance of the sound management of chemicals and waste beyond 2020, and stress the importance of considering long-term policies on strengthening the sound management of chemicals and waste. We will consider that all of these efforts should continue to lead to effective governance and

sound management of chemicals and waste.at all levels.

Children's environmental health

57. Children's environmental health is of particular concern to G7 members. At the G8 Environment Ministers' Meeting held in Banff, Canada in 2002, we took stock of collective and individual actions implementing the 1997 Miami Declaration on Children's Environmental Health. The discussion on Children's environmental health was followed by the G8 Environment Ministers' Meeting held in Siracusa, Italy in 2009. We reaffirm our commitment to its continuous implementation and the importance of a safe and secure environment for children with appreciation of long-term, large-scale epidemiological studies to understand how chemicals in the environment affect children's health and growth. We will promote sharing scientific knowledge on environmental research, risk assessment and standard-setting to support making policies for protecting children.

Minamata Convention on Mercury

58. We continue to support an early entry into force of the Minamata Convention on Mercury, adopted in 2013, and its effective implementation by the Parties. We will also share best practices (including our experiences in providing support to developing countries) and facilitate the effective implementation of the Convention through close cooperation with the Parties ahead of and at the forthcoming first Conference of the Parties. We will share scientific knowledge to promote a coordinated mercury monitoring approach related to the Convention's effectiveness evaluation, which provides important information on the progress of and the circumstances surrounding the Convention towards meeting its objective. Furthermore we recognize the benefits of promoting mercury-free alternative products and technologies where feasible, and the reduction of mercury emissions and releases, including by using technologies that also contribute to other policy objectives, for example co-benefits with climate change.

The Role of Cities

Importance of the role of cities and subnational actors

59. We reaffirm that with populations increasingly concentrated in urban areas, cities are on the one hand sources of environmental damages and risks due to GHG emissions and on the other hand citizens are thus increasingly suffering from its consequences. This underlines the growing importance of the role that cities can play in promoting environmental protection and in addressing climate change, including mitigation and adaptation measures to address climate change is ever more important. Equally, we recognize that cities and other subnational actors are already implementing various strong and future-oriented environmental protection programs, while actively promoting many good practices which lead to more successful approaches to city management to improve the effectiveness of these actions. Such measures, including resilience plans related to urban infrastructure, often have important co-benefits for public health and the quality of life for city residents. The contribution of actions by cities and local authorities in promoting sustainable development and environmental protection is recognized. We encourage the facilitation of these actions with those of national governments, taking into account each country's context.

Promotion of the innovative actions of cities

60. In order to promote better environmental performance in cities, we welcome international initiatives, such as partnerships and cooperative initiatives under the 2030 Agenda and the Lima-Paris Action Agenda, being undertaken by state and non-state actors including city governments. We also recognize the goal of the Third UN Conference on Housing and Sustainable Urban Development, HABITAT III, which takes place in October 2016 in Quito, Ecuador, to renew global political commitment to shaping urbanization in a sustainable way. We note that, where relevant and needed, national governments should facilitate actions by subnational actors, including cities. Such actions include sharing of information and means on successful innovative actions by cities. Recognizing the importance of having a high quality, resilient and sustainable urban infrastructure, we also acknowledge the vital role of environmental impact assessments and other tools to facilitate such efforts.

Marine Litter

Marine litter; a global challenge

61. We recognize that marine litter, in particular plastic litter and microplastics, poses a threat to marine ecosystems and is a global challenge that has been acknowledged by the G7 leaders at the Elmau Summit in 2015. We reaffirm the importance of the “*G7 Action Plan to Combat Marine Litter*” adopted at that Summit and its efficient implementation thereafter.

Priority measures to implement G7 Action Plan to Combat Marine Litter

62. We are committed to implementing the following priority measures, in accordance with national circumstances, in close collaboration and cooperation within the G7 and at other fora (e.g. the G20), foremost through existing platforms and tools, in particular the Regional Seas Conventions and Action Plans, based on the Leaders’ Declaration of the G7 Elmau Summit and its annex the “*G7 Action Plan to Combat Marine Litter*” including discussions in the G7 workshops: (1) promotion of financing opportunities for environmentally sound waste management and wastewater treatment and sharing best practices among G7 members and respective priority countries, aiming for the prevention and reduction of marine litter from land-based sources; (2) promotion of reducing marine litter, particularly the environmentally sound removal actions of plastic litter as far as possible before it degrades into microplastics; (3) promotion of international collaboration working with appropriate organizations including the United Nations Environment Programme (UNEP), the International Maritime Organization (IMO) and the Food and Agriculture Organization (FAO) to address reduction of marine litter in the ocean and from sea-based sources; (4) promotion of outreach and education activities leading to individual behavior change that can prevent litter from entering the environment, internal waters, and the seas; and (5) actions towards standardizing and harmonizing monitoring methodologies for assessing the state of the marine and coastal environment with regard to litter, the progress towards its reduction and effect of microplastics on marine and coastal life, ecosystems and potentially also human health, and for promoting, actively and effectively, various research activities including scientific studies and those initiated at the grass-roots level by citizens.

Regular follow-up

63. Furthermore, we are committed to regular follow-up on actions taken by G7 members to share best practices and promote outreach of these measures to other countries according to the prerogative of the respective presidency.

Future Meetings

64. We noted the importance of taking measures for sustainable development integrating three dimensions – economic, social and environmental – in a balanced manner, and confirmed the value of continuing discussion about the global environmental issues that the international community faces. In this context, we shared the same view that G7 members holding the presidency should consider convening the G7 EMM regularly according to the prerogative of the respective presidency.

Annex

Toyama Framework on Material Cycles

We, the G7 Ministers and high representatives, and European Commissioner responsible for the environment, based on our discussion on resource efficiency and the 3Rs in Toyama, May 15–16, 2016,

Recognizing that the global population is estimated to exceed 9 billion by 2050 and rising demand for resources has caused an increase in resource consumption and waste generation, and that these trends contribute to deterioration of natural environment, including air, soil and water pollution due to hazardous materials and climate change that affect our future generations;

Understanding that appropriate policies on resource efficiency and the 3Rs with the consideration of a resource nexus, can contribute not only to environmental conservation but also to sustainable use of resources, avoidance of business risks, innovation, job creation and green growth;

Emphasizing that the G7 Alliance on Resource Efficiency is a dynamic voluntary platform that benefits from actively engaging relevant stakeholders and supporting networks;

Reconfirming that material life cycles (extraction, design, manufacturing, use, and recycling or disposal) and transactions of materials including secondary ones are often global; and therefore it is increasingly important to ensure cooperation with relevant countries and stakeholders including businesses;

Noting the significance of the 3Rs (reduce, reuse, and recycle) plus other concepts on efficient and cyclical use of resources including sustainable use of renewables, and noting also the significance of sustainable materials management, material-cycles societies and circular economies;

Commit to take the following actions, building upon the Kobe 3R Action Plan, G7 Alliance on Resource Efficiency and other existing initiatives, reflecting the new challenges we face today while also respecting the role of each country to determine policies and other actions in accordance with its own specific circumstances:

1. G7 Common Vision to Enhance Resource Efficiency and Promote the 3Rs

- Our common goal is to realize a society which uses resources including stock resources efficiently and sustainably across the whole life cycle, by reducing the consumption of natural resources and promoting recycled materials and renewable resources so as to remain within the boundaries of the planet, respecting relevant concepts and approaches.
- All this is to ensure that society circulates resources repeatedly, minimizes waste emissions into nature, prevents the diffusion of waste and manages environmental burdens within an acceptable limit so that the material circulation in nature can be kept undisturbed.

- Such a society not only provides solutions to waste and resource challenges, but also achieves a sustainable low-carbon society in harmony with nature that can create jobs, strengthen competitiveness and realize green growth.

2. Ambitious Actions by G7 Members

Goal 1: Leading Domestic Policies for Resource Efficiency and the 3Rs

1-1 Integration of Policies and Policy Mix

- Integrate and promote measures on resource efficiency and the 3Rs, climate change and extreme weather events, hazardous substances, disaster waste, natural environmental conservation, marine litter, access to raw materials and industrial competitiveness and other challenges in a holistic manner, taking into account life cycle approaches and environmental, economic and social aspects of sustainable development.
- Make full use of appropriate policies and measures such as promoting operators' voluntary actions and informational measures in addition to regulatory measures, ensuring transparency and accountability to maximize the potential of various stakeholders including businesses.

1-2 Efficient and Maximized Utilization of Resources

- Promote Reduce and Reuse, in addition to Recycle, from the perspectives of resource efficiency and reduction of GHG emissions.
- Seek minimization and environmentally-safe final disposal of waste by using the most appropriate approach which fits the local situation and type of targeted waste among various measures such as recycling or utilization as animal feed, composting, and energy recovery, in line with the waste management hierarchy.
- Develop and introduce technologies for energy efficient recovery that facilitate more effective utilization of waste in line with the waste management hierarchy.
- Facilitate environmentally-sound disaster waste management to respond to the frequent occurrence and aggravation of natural disasters, by appropriate treatment and recycling of large amounts of disaster waste, and by developing waste treatment facilities resilient to disasters, and facilitating the utilization of the facilities as energy supply hubs.

1-3 Initiatives in Cooperation with Diverse Local Actors (Industrial and Community Symbiosis)

- Facilitate the development of new businesses, job creation, and local revitalization by accommodating and utilizing local resources, goods, and energy based on collaboration among diverse local actors (industrial and community symbiosis) in a region.
- Promote resource circulation at the local level by focusing on local culture and other characteristics, links between residents, and the roles of small and medium-size enterprises.
- Encourage the adoption of resource efficiency and the 3Rs (and relevant other concepts) in local urban development through, for example, facilitating used products collection and utilization of

recycled materials in the community and designating waste disposal facilities for non-recyclable waste as energy supply hubs and disaster-prevention facilities.

1-4 Actions to Final Demands/Consumers

- Enable and encourage the motivation and awareness of final demand side (consumers) to make informed and sustainable choices in order to foster the uptake of sustainable consumption at the household level, *inter alia* through providing reliable, easily accessible and understandable information and eco-design products to consumers.
- Promote increased consumer awareness of the environmental and economic advantages of sustainable consumption; “awareness of sufficiency” - an idea that we should not be greedy, but be satisfied with appropriate amounts; smart purchasing; green public procurement; new services involving reuse, repair, and sharing; and eco-labeling.

Concrete Example: Ambitious Initiatives for Organic Waste Including Food Loss and Waste

- Promote reduction in organic waste, in particular, food loss and waste, effective recycling of food waste, effective utilization as an energy source, and utilization of waste biomass taking into account impacts on other functions for ecosystems.
- Accelerate the initiatives for minimization and effective and safe utilization of food loss and waste in line with target 12.3 of the UN Sustainable Development Goals, such as developing a domestic or regional policy or plan.
- Facilitate sharing each country’s knowledge, through information exchange and cooperation, on the environmental, economic and social benefits of effectively and safely reducing and utilizing food waste, including collaboration on the development of comparable measurement methodologies for food waste and the associated environmental benefits, including climate benefits of reducing wasted food.

Goal 2: Promote Global Resource Efficiency and the 3Rs

2-1 Cooperation with Other Countries

- Share with other countries our best practices/Best Available Technologies (BAT), and useful lessons through appropriate opportunities of international cooperation such as the G7-Alliance on Resource Efficiency.
- Assist developing countries to build the capacity needed for effective resource efficiency and resource circulation policies, including developing scientific and statistical information, in conducting projects in those countries through bilateral or multilateral partnership (e.g., Regional 3R Forum in Asia and the Pacific, Climate and Clean Air Coalition). Such efforts can also contribute to combating marine litter from land-based sources.
- Assist, in disaster waste management countries, or regions that experience significant natural disasters, such as the global hot spot regions in Asia and the Pacific, where frequent earthquakes and other disasters whose impacts are exacerbated due to urbanization and climate change.

2-2 Cooperation across the Global Supply Chain

- Promote the use of sustainable procurement practices that advance resource efficiency taking into account the environmental burdens across the whole lifecycle of materials.
- Advance collaboration and cooperation between upstream and downstream industries, including the appropriate sharing of data across the lifecycle, to promote environmentally-sound business decisions.
- Encourage proactive efforts of upstream industries for reuse and recycling, including the utilization of recyclable resources.

Concrete Example: Management of E-Waste

- Prioritize environmentally sound management of waste within each country or region.
- Share existing approaches, empowering international joint action in particular with E-waste, to distinguish controlled waste from non-waste, and to enhance the effectiveness of enforcement efforts to improve the rate of collection, reuse and recycling via formal routes and the effectiveness of border control efforts to prevent illegal traffic while facilitating resource efficient practices such as remanufacturing of spare parts.
- Recognize that export of hazardous waste, especially by countries without environmentally sound management capacity to countries with the necessary capacity, and conducted according to the relevant domestic and international rules, could make a positive contribution to the environment and to resource efficiency and circularity, allowing countries without sufficient time to develop their own capacity to safely manage their hazardous waste in the meantime.
- Stimulate information exchange on each country's initiatives, standards, environmentally sound management and applicable technologies for proper collection, reuse and recycling of E-waste.

Goal 3: Steady and Transparent Follow-Up Process

3-1 G7's Domestic Efforts

- Consider appropriate science-based and widely acknowledged indicators at the domestic level to provide an orientation on the progress of actions on this Framework.
- Establish a transparent follow-up process domestically including sharing of calculation methods, indicators, and the results of reviews to which other countries can refer.

3-2 Global Efforts

- Support international efforts to identify indicators that can measure the reduction of various environmental impacts and effectiveness of resource stock.
- Continue to share progress, challenges and lessons learned on implementation of the Framework, through workshops and other fora.
- Under the G7 Italian presidency, we will follow-up and discuss policy actions, priorities and next steps to advance resource efficiency and the 3Rs based on the reports and recommendations

submitted by IRP and OECD and lessons from the G7 alliance on Resource Efficiency Workshops.

- Building on the G7 Resource Efficiency Alliance activities, develop a roadmap, also in consultation with stakeholders and relevant international organizations, to prioritize actions that advance life cycle based materials management, resource efficiency, and the 3Rs, including in the supply chain.

Attachment

Table. Examples of Actions by G7 Members

Japan	<ul style="list-style-type: none"> ● Developed Basic Act for Establishing a Sound Material-Cycle Society as a framework law and Fundamental Plan for Establishing a Sound Material-Cycle Society as implementation plan. The plan is reviewed every five years. ● Setting the target on resource productivity(460,000JPY/ton), cyclical use rate(17%), final disposal amount(17mil ton)by 2020. Other indicators also have improved. ● Increased target rate of recycling of Home Appliance Recycling Law, and introduced Small Waste Electrical and Electronic Equipment Recycling Law. ● Achieved over 80% recycling rate of disaster waste generated by the Great East Japan Earthquake. Strengthened disaster waste management measures including reforming waste management law and the Basic Act on Disaster Control Measures, based on recent lessons and knowledge from recent disasters.
Italy	<ul style="list-style-type: none"> ● Developing inter-institutional coordination on Circular Economy ● Environmental law on Circular Economy and Resource Efficiency adopted in February 2016. A comprehensive Green Act, Update of National Sustainable Development Strategy based on Agenda 2030 - SDGs and on MFA as well as an action plan for sustainable production and consumption under development. ● National law to avoid food waste and to facilitate the reuse of other goods under Parliamentary scrutiny. ● Adoption of a National Waste Prevention Program setting specific waste reduction targets for municipal waste and industrial waste (non-hazardous and hazardous). ● Setting targets on TMR to reduce by 25% by 2010, 75% (Factor 4) by 2030, 90% (Factor 10) by 2050 compared to base year 1990 (set in the Sustainable Development Strategy 2002). ● Setting binding targets on separate collection at national level. ● Increasing recycling performance at national level ● Fostering take-back mechanisms for reuse and relations between private companies through models of industrial symbiosis. Stimulate the market of recycled products and secondary raw materials quality, also through wider use of sustainable public procurement (mandatory environmental criteria); Defining mechanisms to incentive consumers, businesses and local authorities to support the purchase of products made with secondary raw materials; Implementing environmental tax reform (e.g. introduction of reduced tax for eco-products and tax credits for eco-efficient companies, incentives for best recycling local authorities, recovering of fuel taxes decreases of the 90s, reduction of EHSs for polluting trucks).

Canada	<ul style="list-style-type: none"> ● Regarding the 3Rs, reducing chemical emissions, strengthening producer responsibility, developing vision and action plan for waste, and developing statistics on waste and chemical emissions. ● Helping advance scientific studies on impacts and cost of resource use throughout life-cycle of materials and conducting data collection. ● Published report on environmentally sound management of e-waste in 2014. ● Endorsed the Canada-wide Action Plan for Extended Producer Responsibility (EPR), currently 160 voluntary and legislated EPR programs and implementing Green Mining Initiative.
France	<ul style="list-style-type: none"> ● Published the Energy Transition to Green Growth Act, which includes goals and actions towards transition to Circular Economy, in August 2015. Planning elaboration of a circular economy strategy revised every 5 years and including a resources program. ● Integrated a resource hierarchy in the Environmental Code and a resource productivity target ● Monitoring the amount of material consumption, MSW generations and treatment, and other relevant indicators. Material productivity has improved 1.5 times in 2012 compared to 1990. ● Established Committee for Strategic Materials (COMES) to identify, to facilitate resource efficiency and recycling, and to consider possible substitutions of strategic materials, and more generally to promote resource efficiency and circular economy implementation in strategic industrial sectors and at local level (industrial symbiosis) ● Introducing the law on redistribution on food that is approaching best-before dates in retailers. ● Develop footprints labelling on a voluntary basis ● Develop extended producer responsibility schemes
US	<ul style="list-style-type: none"> ● Initiate transition to Sustainable Materials Management (SMM) in 2009. ● In 2013, published “Advancing Sustainable Materials Management: Facts and Figures Report”, which includes data on municipal solid waste generation and recycling rates. ● Initiated multiple activities (for example tools development, guidance, pilots, and launch of LCA Research Center) to help incorporate lifecycle thinking into policy and business decisions. ● Continue to promote SMM approaches particular to the food, electronics, and built environment sectors.
UK	<ul style="list-style-type: none"> ● Monitoring Raw Material Consumption (headline indicator), recycling rate of household waste, and recovery rate of construction and demolition waste, as sustainability indicators. ● Implementing various economic instruments related to waste prevention such as landfill tax and plastic bag charge. ● The UK has Waste Prevention Programmes in place. These include a range of measures which can be applied by government, businesses, third sector, consumers and others to prevent and reduce waste, improve resource efficiency and help us move to a more circular economy. Examples of measures are: <ul style="list-style-type: none"> ➢ We have in place voluntary agreements, led by WRAP, with resource efficiency at their core, covering food and packaging; clothing, and electrical and electronic equipment. ➢ Since 2007, large scale interventions in place aimed at reducing food waste across both supply chains and within households. Based on the success of earlier agreements, WRAP launched the Courtauld Commitment 2025 in March 2016. This is an ambitious

	<p>voluntary agreement that brings together organizations across the food system – from producer to consumer – to make food and drink production and consumption more sustainable,</p> <ul style="list-style-type: none"> ● The UK Government is committed to procuring more sustainable products as part of the its Greening Government Commitments (GGCs) on reducing the environmental impact of government's operations.
Germany	<ul style="list-style-type: none"> ● Resource Efficiency and the 3Rs relevant policies such as Circular Economy Act(1996), the ban on direct landfill(2005) and Raw Materials Strategy (2010). ● Launched German Resource Efficiency Programme (ProgRess) (2012), to be reviewed and further developed every four years, for the first time in 2016 (ProgRess II). ● Set the target to double raw materials productivity by 2020 compared to 1994 and launched a new indicator and target including the use of raw materials for imports (indirect imports) ● .Launched German National Program for Sustainable Consumption (2016) to encourage and strengthen sustainable consumption within most relevant areas. ● Established Material resource efficiency agency(2006) , Center for Resource Efficiency (2009).
EC	<ul style="list-style-type: none"> ● Proposed a Circular Economy package in December 2015, in addition to the existing Resource-Efficient Europe Flagship initiative and Roadmap. The package consists of legislative proposals enhancing recycling rates of MSW and packaging wastes, phase-out of landfill, prevention of food waste generation, and an Action Plan with measures to "close the loop" of the circular economy. The Action Plan tackles all phases in the lifecycle of a product: <ul style="list-style-type: none"> ➢ production (e.g. eco-design) ➢ consumption (e.g. green public procurement) ➢ waste management ➢ Boosting the market for secondary raw materials and promoting water reuse. ● The Action Plan also foresees targeted actions on nutrients, plastics, critical raw materials, construction and demolition waste and biomass, as well as measures to promote innovation and investments in the circular economy to make the transition happen on the ground. ● Eurostat calculates and compiles material flow indicators and resource productivity for EU member countries. Published EU Resource Efficiency Scoreboard. ● Developing a monitoring framework for circular economy building on the Resource Efficiency and Raw Materials Scoreboards.

※ Drafted by the Ministry of the Environment, Japan and the Institute for Global Environmental Strategies based on materials of workshops in February, 2016 in Yokohama, Japan, and revised based on the G7 members' comments.