Statement

by
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at

the Panel on "Industrial revolution – the transition to a green economy"

of the Astana Economic Forum

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Mr. Chair,
Excellencies,
Ladies and gentlemen,

Industrial revolution can be seen as a transition process to mark a major turning point in the ways people live and work. So was the first industrial revolution (1760-1820/40), which improved the living standards of masses of ordinary people by moving from hand production methods to machines, new chemical manufacturing and iron production processes, improved water efficiency as well as increased use of steam power and development of machine tools. The second industrial revolution (1860-1910), also known as the technological revolution, further improved the living standards by moving to mass production with the help of the new technologies, in particular, electricity, internal combustion engine, new material and substance, including alloys and chemicals, as well as communication technologies like telegraph or radio. The third industrial revolution (from 2000) – the green economy transition – is expected to introduce sustainable consumption and production patterns, to enable further improvement of the living standards for all.

What are the characteristics of our third industrial revolution?
In our current transition process our goal is to move away from a linear model ‘take, make, and dispose’ in the industrial process and the lifestyle ‘buy, use and dispose’ to the restorative approach, in which the resources will circulate in the economy to the extent possible, creating economies in loops.

Why do we need to do it?
There are physical boundaries to using ecosystems and natural resources, which are the natural capital considered as a critical economic asset. The ‘sink function’ of the planet has a limited capacity. By surpassing it, we are destructing the ecosystems and deplete the renewable resources by not allowing the ecosystems to regenerate them. Many resources we base our development on are finite. By consuming them at a rather great pace, we are going to deplete them in not such a distant future. At the same time, we miss the alternatives for maintaining and further improving the human welfare.

What do we need to do?
The third industrial revolution needs to be a transition to green economy, to be seen as a
means to achieve resilient economy that provides better quality of life for all within the ecological limits of the planet. In other words, green economy should ensure that long-term economic development which is achieved through investments into environmentally friendly and socially equitable solutions. Such investments should help thus to use natural capital and ecosystems in a more efficient way or to substitute them by other assets, when there is a risk of depletion or degradation. These investments should support, at the same time, creation of social equity and generation of decent jobs.

**What are green investments?**

These are, for example, investments into innovation, research and development in improving resource efficiency and clean technologies, deployment of existing resource efficient and clean technologies, training and reskilling for enhanced use of new technologies, as well as in greening infrastructure across sectors.

**How to achieve the transition?**

In order to achieve the transition, the governments but also consumers need to stimulate green investments. The role of the governments is to choose and implement the different instruments for stimulating green investments by businesses or by the means of green procurement. The role of consumers is to influence businesses for actions but also the governments for the use of the available stimulative instruments.

Economic, legal and regulatory, voluntary and information-based instruments are among the instruments for stimulating the green investments. The economic instruments are to alter relative prices, to change production or consumption patterns. The legal and regulatory instruments include bans or limits, product and processes norms or standards. Voluntary instruments refer to voluntary commitments of companies to improve their environmental performance. The information-based instruments are to alter behaviours by modifying consumers’ preferences towards more green ones or to inform workforce about green economy transition and provide reskilling programmes for the transition.

The choice of instruments must be tailored to the individual country’s characteristics, its natural resource endowment, level of socioeconomic development, environmental conditions, state of human health, dominant economic sectors, strengths of institutions, etc. There is no one-size-fits-all instrument mix that can ensure transition to green economy.
Therefore, actions that governments need to design in order to ensure green and socially sound futures need to be based on robust knowledge and assessment of their socioeconomic, environmental and health conditions and trends, as well as a good understanding of the environmental, social and economic impacts of chosen instruments.

**How United Nations is helping the green economy transition?**

The United Nations has a key role to play in fostering the transition to the green economy. It helps to set the global/regional/national regulations, norms and standards for the green economy, through its global and regional conventions. The United Nations also helps to build capacity at all levels to transition towards the green economy through green economy programmes and projects. The United Nations has a role in advocating for the opportunities offered by the green economy in order to mobilize businesses participation on a massive scale, and for more sustainable production and consumption patterns, including through voluntary initiatives.

UNECE is well-placed to lead the green economy agenda in the pan-European region for a number of reasons. **First**, it has necessary expertise in most of the green economy sectors, namely, sustainable energy, transport, housing, water, and timber/forestry. **Second**, our normative work covers international norms and standards which directly contribute to the transition towards the green economy. **Third**, our Member States have accumulated sufficient experience related to green economy and UNECE provides a unique forum to exchange their national experience and best practice.

**What are the specific UNECE activities on green economy?**

We are about to launch a green economy toolbox at UNECE, with which we will offer our various tools in the areas of environmental protection, education, finance, housing, innovation, measurement and statistics, standards, sustainable energy or transport, to support the transition to green economy. The toolbox will be available at [http://www.unece.org/greeneconomywelcome/home.html](http://www.unece.org/greeneconomywelcome/home.html)

The UNECE toolbox comprises guides, guidelines, methodologies and manuals on legal instruments, norms and standards, as well as policies and educational material to support the transition to green economy. I would like to provide more details about these tools.
In order to protect environment – an important pillar of green economy transition – we helped our Member States to negotiate and adopt multilateral environmental agreements which offer legal frameworks and policy solutions to reduce emissions, to promote sustainable production, resource efficiency and equitable use of resources, as well as to strengthen governance, transparency and accountability. We also provide technical assistance to our Member States to accede to and implement these legal instruments.

We help our Member States to be aware of the impact of the adopted policies and instruments on their environmental and economic performance. Under the Programme on Environmental Monitoring and Assessment, we assist our Member States in establishing or improving the systems of environmental monitoring and reporting, assess the impact of national policies on environmental performance of a country, and provide a sound basis for appropriate policy development aimed at safeguarding the environment and for sustainable use of natural resources. Under the Environmental Performance Reviews Programme, we evaluate the environmental performance and provide tailor-made recommendations on how to further improve the performance and ensure successful transition to green economy.

Under the Innovation Performance Reviews Programme, we are examining possible policy actions to stimulate innovation activities, enhance innovation capacity and improve the efficiency of national innovation systems, crucial for achieving the green economy.

We promote the use of energy-efficient technology, market formation and investment activities on energy efficiency and renewable energies under our Sustainable Energy Programme. In particular, we promote the use of clean coal technology and the role of coal in sustainable development. We offer business development course for energy efficiency projects and regional analysis for policy reform on energy efficiency and renewable energies. We help to understand the use of the UN Framework Classification for Fossil Energy and Mineral Reserves and Resources and the true effect of energy resource development.

We promote energy-efficient housing and climate neutral cities under our Housing and Land Management Programme. We offer the Action Plan for energy-efficient housing which includes a wide range of measures aimed at removing barriers to energy efficiency and progressively moving towards a low-energy and – ultimately – zero-energy carbon neutral housing sector. We have prepared a report which outlines systematic interrelated
measures for progressive transformation towards low-energy, low-carbon, highly resilient and ultimately climate neutral cities.

Under the Forest and Timber Programme, we promote a vision for the forest sector in achieving green economy, which enables the forest sector to supply marketed and unmarketed forest goods and services, create revenue and livelihoods while maintaining and developing forest ecosystem services on a sustainable basis, within the context of a changing climate. We promote forest sector governance taking into full account all ecosystem services provided by the forest with compensation scheme for services suppliers whenever feasible.

We work on the development and assurance of standards under our Programme on Regulatory Cooperation and Standardization Policies. We facilitate transboundary cooperation in the domain of technical regulations, standardization, metrology, accreditation, conformity assessment and market surveillance of products and services. This field is of crucial importance in the context of green economy, as citizens need to be assured of their green and sustainable choices in their daily decision-making when purchasing goods and services traded nationally as well as internationally.

We help in establishing financing for innovative development and foster entrepreneurship and public-private partnerships through our Economic Cooperation and Integration Programme. We offer self-guided learning software on financing for innovation and develop policy recommendations on financing and development of clean technologies. We guide governments on how they can provide incentives in public-private partnerships contracts to deliver public services in a more environmentally sensitive way.

We promote transition to green economy through development of competences, knowledge, skills as well as good understanding of values, to put the green economy concept into practice. Our Programme on Education for Sustainable Development assists the Member States in elaborating and implementing the necessary education curricula in support of sustainable development and green economy.

We promote safe and sustainable transport through our Transport Programme. We help our Member States to establish regulation for limiting pollution from transport, introduce
standards and regulations for hybrid or electric vehicles, or on bio-fuels. We deliver recommendations on market fuel quality, environmentally friendly vehicles or hydrogen and fuel cells vehicles. We offer procedures for vehicle tests. We develop tools to assess transport policy vis-à-vis CO₂ emissions. We offer studies on competitive alternatives to road and rail transport. We help to develop intelligent transport systems, better infrastructure and intermodal transport operations. We help to shape legislation and provide best practice and capacity building for increasing road safety including on regulation for construction of safe roads, manufacturing of safe vehicles, as well as governance for safe road traffic and education for drivers. We pursue an integrated approach to policy making across transport, health and environment in order to address key challenges to transport and ensure sustainable mobility, in particular through walking and cycling.

Finally, through our Statistics Programme, we provide a framework for measuring sustainable development and the progress in achieving the transition to green economy. We offer and explain a capital approach for measuring sustainable development supplemented by inclusion of the distributional aspects within current generations and of the cross-border distribution.

We, at UNECE, work at many fronts to make the third industrial revolution happen. We count on the support of all stakeholders in this process.

Thank you.