

UNITED NATIONS
ECONOMIC COMMISSION FOR EUROPE

Reaping the security benefits of greening the OSCE economies

A review of the implementation of the OSCE commitments relevant to the environmental component of the theme of the 25th Economic and Environmental Forum
“Greening the economy and building partnerships for security in the OSCE region”

25th OSCE ECONOMIC AND ENVIRONMENTAL FORUM
CONCLUDING MEETING
Prague, 6–8 September 2017

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Acronyms

BIG-E	Batumi Initiative on Green Economy
EBRD	European Bank for Reconstruction and Development
ENVSEC	Environment and Security Initiative
GGKP	Green Growth Knowledge Partnership
GREEN Action Programme Task Force	Green Economy and Environment Action Programme Task Force
OECD	Organisation for Economic Co-operation and Development
OCEEA	Office of the Co-ordinator of OSCE Economic and Environmental Activities
OSCE	Organization for Security and Co-operation in Europe
PAGE	Partnership for Action on Green Economy
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme

Executive Summary

Green economy commitments

Greening the economy is highly relevant to the OSCE security agenda. This review focuses on the environmental component of the transition to a green economy in the OSCE region. OSCE commitments related to greening the economy go back to the 1975 Helsinki Final Act. Since the concept of green economy is relatively new, it has not yet been explicitly mentioned in any of the OSCE documents manifesting political commitments. But actions that are fundamental to greening the economy (such as resource efficiency or the integration of environmental concerns in economic policies) have been addressed in several OSCE key documents as part of the economic and environmental dimension of the OSCE's comprehensive approach to security. OSCE commitments to achieve sustainable development are particularly relevant.

Green economy frameworks

At the global level, the main political framework for promoting the transition to a green economy is the outcome document of the 2012 United Nations Conference on Sustainable Development (Rio+20), *The Future We Want*. The outcome document of the 2015 United Nations Sustainable Development Summit (*Transforming Our World: the 2030 Agenda for Sustainable Development*), which sets the Sustainable Development Goals, does not make an explicit reference to green economy or green growth. Many OSCE participating States are also members of the Organisation for Economic Co-operation and Development (OECD) and thus the OECD Green Growth Strategy is a relevant framework for them.

At the regional level, the *Pan-European Strategic Framework for Greening the Economy* was endorsed by ministers at the Eighth Environment for Europe Ministerial Conference held in Batumi (Georgia) in 2016. The Batumi Initiative on Green Economy (BIG-E), which consists of voluntary commitments to operationalize the Strategic Framework until 2030, was launched at the same Conference. The GREEN Action Task Force work focuses on assisting countries of the South Caucasus, Central Asia and Eastern Europe in greening their economies by promoting the integration of environmental considerations into the processes of economic, social and political reform. The European Union's *acquis communautaire*, which also extensively addresses environment, resource efficiency and energy security issues, is driving policymaking in its member States and it is also influencing policymaking in many other OSCE participating States that are not part of the European Union.

At the national level, green economy strategies and policy frameworks have been developed by only a few countries in the OSCE region. In some OSCE participating States, the green economy strategy is part of a broader policy strategy.

Green economy actions

Countries in the OSCE region are undertaking efforts to green their economies. Despite many challenges, there are good examples of the successful implementation of green economy policy packages, in particular sectoral ones, which showcase how countries can green or start to green their economies. Actions taken and progress vary from country to country.

Due to energy security concerns, energy efficiency and renewable energy promotion are high on the political agenda. All sub-regions of the OSCE region have been cutting their energy intensity, sharply narrowing the absolute gaps between them; but there is still enormous potential for efficiency improvements throughout the OSCE region in transport, buildings, industry, and the upstream segments of the energy sector. All sub-regions of the OSCE region have increased the share of renewable energy consumption in total final energy consumption; but renewables still represent only a small share of total primary energy supply.

International organisations in the OSCE region support countries in their joint efforts for the green transition through a wide range of regional cooperation activities. The number of programmes and agencies involved varies across sectors.

A range of OSCE activities undertaken by the OCEEA and OSCE Field Operations support the principles that underpin the greening of the economy. The OSCE tackles environmental and security issues in many different fields where improvements contribute to the transition to a green economy. Energy efficiency and renewable energy are also a particular focus of the work of the OSCE in the economic and environmental dimension.

Green economy challenges and policy gaps

The efforts of countries in the OSCE region to contribute to the transition to a green economy are undermined by the lack of green economy policy and strategic frameworks or other policy and strategic frameworks with green economy considerations. Challenges in pursuing green economy policies are related, but are not limited, to the adequate application of policy impact analysis, the absence of strategies and stable green development conditions, pressures created by the economic downturn and related difficulties in mobilizing capital, a lack of necessary green skills, and knowledge and pressures from interest groups or lobbies. OSCE participating States face a series of policy gaps in terms of the knowledge base, governance and institutional arrangements, policy frameworks, and implementation.

Conclusions

The transition to a green economy is relevant to the OSCE comprehensive approach to security, as it is expected to deliver significant security benefits. There is a substantial body of OSCE commitments that are relevant to the transition to a green economy, but there are no explicit OSCE commitments on the green economy. OSCE participating States are making progress in those commitments, though at different paces and in different fields. OSCE participating States face important challenges in the transition to a green economy.

There are already a number of green economy policy frameworks at the global and regional level. Policy frameworks at national level are often weak or non-existent, however. For the most part, existing green economy frameworks and activities do not recognise the links with peace, stability and security. The knowledge base on the links between green economy and security is underdeveloped.

The OSCE, uniquely, can bring a security perspective to the green economy agenda and mobilise the diplomatic and security communities to support the transition to a green economy. The OSCE has already developed experience in the field of the green economy, mostly at the implementation level and in partnership with other international organisations. The OSCE executive structures, including OSCE field operations, as well as Aarhus Centres supported by the OSCE, could support efforts by countries on a long-term basis, which is key if the transition to a green economy is to be successful.

There is potential and demand for the OSCE to increase its impact on the transition to the green economy in the OSCE region. The transition to a green economy in the OSCE region represents a very large endeavour that could benefit from any amount of political, financial and technical resources that the OSCE would be able to mobilise. Several international organisations are working in the field of green economy, both at the normative and the implementation levels, and often in partnership. The OSCE's comprehensive approach to security, field presence, convening power and potential as a platform to raise awareness and share best practices among different stakeholders, including the private sectors, is recognised and valued by other partners working on the transition to the green economy and related fields.

Recommendations

Recommendation 1. Building on previous OSCE green economy-related commitments, the OSCE's experience in this field, and the outcomes of the Eighth Environment for Europe Ministerial Conference, develop an OSCE food-for-thought paper on the green economy. Such a food-for-thought paper is recommended to identify the links between the transition to a green economy and improved security, define a range of green economy-related actions that contribute to deliver security benefits (including energy efficiency and renewable energy use), and set priorities for OSCE engagement in

the green economy field. Based on the food-for-thought paper, consider drafting and adopting a Ministerial Council Decision on issues related to green economy and environmental co-operation, that endeavours to integrate green economy considerations into the broader work of the OSCE, mobilise current OSCE institutional resources, and further develop OSCE capacities to deliver on this new agenda.

Recommendation 2. Encourage participating States to develop or improve national institutional and policy frameworks to promote the transition to a green economy; take the lead in raising awareness of the security benefits of the transition to a green economy among relevant stakeholders, including diplomatic and security communities, in the OSCE region; and support the participating States, upon their request, to gather political support among the diplomatic and security communities to promote the transition to a green economy and in particular the development of national green economy frameworks.

Recommendation 3. Support the participating States, upon their request, in: (a) strengthening their capacities to manage the transition to a green economy (including sustainable energy topics) with a particular focus on developing national green economy frameworks that integrate security considerations; (b) raising awareness about the transition to a green economy, including on circular economy approaches, and to promote community-based efforts, including, where appropriate, through Aarhus Centres, civil society organizations and other multi-stakeholder partnerships and initiatives; and (c) identifying and implementing green economy actions that will deliver security benefits. In addition, facilitate the identification of regional green economy projects that can deliver security benefits, encourage international financial institutions to fund their implementation, and further develop the knowledge base on the links between the transition to a green economy and security, building on OSCE experiences and those of participating States and other partners.

Recommendation 4. Further engage in defining the regional agenda on the transition to a green economy and support international dialogues for technical and knowledge exchange on the green economy field (including good practices and lessons learned) by bringing in a green economy and security perspective, facilitating the participation of diplomats and security experts, sharing the results of country-level activities on the green economy and security field, and helping to articulate the security benefits of green economy actions. In addition, assess OSCE's current green economy-related activities and its engagement in inter-agency partnerships and engage more actively in inter-agency partnerships (such as the GREEN Action Programme Task Force, PAGE, GGKP, etc.) where the OSCE, as a regional security organization, can add most value based on its comparative advantages.

1. OSCE environmental commitments related to greening the economy

Greening the economy is highly relevant to the OSCE security agenda. Greening the economy is an approach to foster economic progress while ensuring environmental sustainability and social equity. Greening the economy seeks to mobilize more action-oriented, mainstream and bottom-up pathways towards the ultimate goal of sustainable development (OSCE, 2017a, 2017b, 2017c). The transition to a green economy is expected to generate a range of economic, social and environmental benefits (such as increased economic prosperity, shared prosperity, improved quality of life, green jobs, maintenance of natural capital and ecosystems, and reduced environmental risks including those at the transboundary level) that will contribute to enhancing security and stability within and across borders in the OSCE region. The transition to a green economy as a key path to sustainable development calls for enhanced cooperation on a broad range of economic and environmental topics – both among and within countries. Closer cross-border cooperation in areas such as environmental risk reduction, good environmental governance, resource efficiency, energy security, energy efficiency and renewable energy, can prevent or reduce tensions resulting from resource scarcity and environmental degradation.

This review focuses on the environmental component of the transition to a green economy in the OSCE region. It addresses two major topics: reducing environmental risks, and resource efficiency and renewable energy fostering energy security. This review complements the set of recent reviews of the implementation of OSCE commitments in the fields of energy efficiency (UNECE, 2011), energy (UNECE, 2013), disaster risk reduction (UNDP, 2014), water governance (UNECE, 2015) and good environmental governance (2016). This review builds on the discussions held at the Second Preparatory Meeting of the 25th OSCE Economic and Environmental Forum dedicated to “Greening the economy for sustainable development, security and stability” that took place in Astana on 14-16 June 2017.

OSCE commitments related to greening the economy go back to 1975. Since the concept of green economy is relatively new, it has not yet been explicitly mentioned in any of the OSCE documents manifesting political commitments. The nearly equivalent concept of green growth¹ was mentioned for the first and so far only time in the Ministerial Council Decision on Improving the environmental footprint of energy-related activities in the OSCE Region of 2013. The Decision commits to make the best use of the OSCE as a platform for a broad dialogue, cooperation, exchange of information and sharing of best practices, *inter alia*, on green growth. But actions that are fundamental to greening the economy (such as resource efficiency or the integration of environmental concerns in economic policies) have been addressed in several OSCE key documents as part of the economic and environmental dimension of the OSCE’s comprehensive approach to security. The 1975 Helsinki Final Act, the founding document of the OSCE, already included as fields of cooperation sustainable energy, rational use of resources, and environmental quality, as well as a full chapter on the environment. Since then many documents including relevant commitments have been adopted by the OSCE participating States, they are listed in Table 1.

OSCE commitments to achieve sustainable development are particularly relevant. The OSCE Strategy Document for the Economic and Environmental Dimension, adopted in Maastricht in 2003, committed the OSCE to pursue action and cooperation to achieve sustainable development through (a) promotion of coordinated approaches to institutional frameworks for sustainable development, (b) formulating and implementing national strategies/programmes of sustainable development, (c) promoting public participation in sustainable development policy formulation and implementation; (d) enhancing the role of local authorities and stakeholders, (e) increasing efficiency in the use of natural

¹ The expressions “green growth” and “transition to a green economy” emerged nearly simultaneously in the discourse of international organizations. The World Bank and the OECD use the former (more recently formulated as “green and inclusive growth”), while United Nations agencies generally use the latter.

resources and preventing the deterioration of the environmental habitat; and (f) providing conditions and mechanisms for mobilizing internal and external resources for development, and ensuring adequate social conditions. This document also committed OSCE to encourage energy dialogue and efforts to make more efficient use of energy resources, and to support further development and use of new and renewable sources of energy.

Table 1. OSCE Commitments related to the transition to a green economy

Year	Document	Selected commitments
1975	Helsinki Final Act	<p>To promote research on energy efficiency, renewable energy, sources, waste reduction, and cross-border environmental problems</p> <p>To promote harmonization of definitions and methodologies and sharing of data</p> <p>To study cross-border environmental problems and promote a multi-disciplinary approach to environmental problems</p> <p>To increase the effectiveness of measures to protect the environment</p> <p>To bring environmental policies closer together</p> <p>To co-operate in the control of air pollution; water pollution control and freshwater utilization; protection of the marine environment; land utilization and soils; nature conservation and nature reserves; improvement of environmental conditions in areas of human settlement; fundamental research, monitoring, forecasting and assessment of environmental changes; and legal and administrative measures.</p>
1986	Concluding Document of the 1986 Vienna Meeting of the Conference of Security and Co-operation in Europe	<p>To reduce emissions of sulphur, nitrogen oxide and other air pollutants</p> <p>To reduce the pollution of seas and coastal areas, transboundary watercourses and international lakes</p> <p>To improve cooperation in hazardous chemicals and the transboundary movement of hazardous waste</p> <p>To combat soil degradation and protect biodiversity</p> <p>To raise environmental awareness and promote environmental education</p> <p>To cooperate in preventing industrial accidents with a transboundary impact and provide mutual assistance</p>
1990	Document of the Bonn Conference on Economic Co-Operation in Europe	<p>To ensure environmental sustainability of economic development</p> <p>To secure a more efficient use of energy and raw materials</p> <p>To cooperate in the field of environmentally sound technology</p>
1990	Charter of Paris for a new Europe	<p>To promote public awareness and education on the environment and the public reporting of the environmental impact of policies, projects and programmes.</p> <p>To introduce clean and low-waste technology</p>
1992	CSCE Helsinki Document – The Challenges of Change	<p>To integrate environmental protection in other policies and in the economic decision-making, including through the use of economic and fiscal instruments</p> <p>To ensure the safety of all nuclear installations</p> <p>To prevent the illegal movement and disposal of hazardous wastes</p> <p>To encourage the development of a network of protected areas</p>
2003	MC(11).JOUR/2 OSCE Strategy Document for the Economic and Environmental Dimension	<p>To make more efficient use of energy resources</p> <p>To support further development and use of new and renewable sources of energy</p> <p>To identify and tackle environmental threats, including risks of natural and man-made disasters</p> <p>To formulate and implement national strategies/programmes for sustainable development</p> <p>To increase the efficiency of natural resources and prevent the deterioration of the environment habitat</p> <p>To promote coordinated approaches to institutional frameworks for sustainable development</p>

		To support the implementation of international environmental legal instruments To promote training on environment and security
2005	MC.DOC/3/05 20th Anniversary of the Disaster at the Chernobyl Nuclear Power Plant	To continue to contribute to international co-operation efforts to alleviate the consequences of the Chernobyl accident
2006	MC.DEC/12/06 Energy Security Dialogue in the OSCE	To promote a strategic dialogue on energy security
2007	MC.DOC/4/07 Environment and Security	To enhance cooperation in the field of environment and security To raise awareness of the potential security impacts of environmental challenges To improve environmental governance, inter alia, by strengthening the sustainable management of natural resources, especially water, soil, forests and biodiversity
2007	MC.DEC/6/07 Protecting Critical Energy Infrastructure from Terrorist Attack	To increase the protection of critical energy infrastructure protection against terrorist attack and to effectively address preparedness/ consequence management issues in this field
2007	MC.DEC/7/07 Follow-up to the 15th Economic and Environmental Forum	To strengthen dialogue and co-operation on water management within the OSCE To consider the ratification of existing international environmental legal instruments related to water management relevant to the OSCE region and support their full implementation To promote good public and corporate governance, and combat corruption, in water management To promote wider public participation in water management
2008	MC.DEC/9/08 Follow-Up to the 16th Economic and Environmental Forum on Maritime and Inland Waterways Co-Operation	To strengthen dialogue and co-operation regarding the security, environmental and economic aspects of maritime and inland waterways.
2009	MC.DEC/5/09 Migration management	To contribute to international efforts to assess the possible impact of environmental degradation on migratory pressures
2009	MC.DEC/6/09: Strengthening Dialogue and Co-Operation on Energy Security in the OSCE Area	To enhance energy efficiency and energy saving To diversify the energy mix To addressing climate change and sustainable development
2013	MC.DEC/5/13 Improving the environmental footprint of energy-related activities in the OSCE Region	To make best use of the OSCE as a platform for a broad dialogue, co-operation, exchange of information and sharing of best practices, inter alia, on green growth To promote modernisation and technological innovation in the energy sector to enhance environmental sustainability To raise environmental awareness and engage stakeholders in environmental decision-making
2013	MC.DEC/6/13 Protection of energy networks from natural and man-made disasters	To consider necessary measures to increase protection of energy networks from natural and man-made disasters To implement integrated environmental and natural resource management approaches that incorporate disaster preparedness and risk reduction
2014	MC.DEC/6/14 Enhancing Disaster Risk Reduction	To promote good governance and transparency in the field of disaster risk reduction To develop, co-ordinate and implement disaster risk reduction measures with climate change adaptation and mitigation plan

2016	MC.DEC/4/16 Strengthening good governance and promoting connectivity	To promote policies and initiatives reducing the environmental footprint of transport and its impact on climate change
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Box 1. Green economy commitments of OSCE participating States in the framework of the Batumi Initiative on Green Economy

OSCE participating States have undertaken explicit green economy commitments in other regional processes. For example, in the framework of the *The Batumi Initiative on Green Economy (BIG-E)*, which consists of voluntary commitments on green economy actions to operationalize the *Pan-European Strategic Framework for Greening the Economy* (see Section 2 below), over 77 commitments from 24 OSCE participating States were submitted for the 8th Environment for Europe Ministerial Conference and thereafter. (Additional commitments were submitted by 12 organisations). They include: Austria (1), Azerbaijan (1), Belarus (5), Croatia (5), Estonia (1), Finland (2), Georgia (4), Germany (4), Hungary (4), Italy (4), Kazakhstan (1), Kyrgyzstan (1), Latvia (3), Lithuania (5), Luxembourg (1), Netherlands (5), Poland (5), Portugal (4), Republic of Moldova (5), Romania (2), Slovenia (1), Sweden (3), Switzerland (5), and Uzbekistan (5). The received commitments cover all of the nine focus areas of the Pan-European Strategic Framework for Greening the Economy. The first reporting on progress is scheduled for 2018.

Source: UNECE (2017b) Draft overview of the BIG-E commitments on green economy actions

2. Existing frameworks for greening the economy in the OSCE region

2.1 National level frameworks

National green economy strategies and policy frameworks have been developed by only a few countries in the OSCE region. Some of those strategies and policy frameworks set specific national objectives, goals and/or targets. The green economy concept of Kazakhstan has goals and targets related to greenhouse gas emissions, energy efficiency, water and agriculture. The Swiss green economy action plan identifies six focus areas, including cleantech (development of new environmental and energy technologies), use of information and communication technologies to increase resource efficiency, improving information on the environmental impact of products, integration of environmental information (going beyond gross domestic product measurement), greening of the tax system and assessment of legislation on resource efficiency. In the Netherlands, green growth is the overarching national strategy for eight focus areas (water, climate, energy, waste as a resource/circular economy, sustainable housing, sustainable transport, bio-based economy and food), and a Green Deal programme aims at involving the business sector in the green transition. Belarus, following up on the 2015-2030 national strategy for sustainable social and economic development, has developed a national action plan for the development of the green economy up to 2020. Mongolia developed a green development strategy and an associated action plan, which were approved by its parliament in 2014 and 2016 respectively.

In some OSCE participating States, the green economy strategy is part of a broader policy strategy. In some cases, this is a sustainable development strategy (Belgium, Czech Republic, France, Lithuania, Romania) with no stand-alone set of green economy objectives, goals and targets. Yet in other cases, it is mainstreamed within environmental policies (Belgium,² Republic of Moldova, the European Commission's Seventh Environment Action Programme) or other policies, often energy policies (Hungary, Italy). In a few countries, objectives, goals and targets that can be considered green economy ones are included under the national development plan (Czech Republic, Republic of Moldova, Turkey), are part of the strategic partnership agreement with the European Commission for the implementation of the Europe 2020 targets (Greece), or are included in reforms related to harmonization with the European Union *acquis communautaire* (Serbia).

Box 2. National framework for the transition to a green economy in Croatia

The 2011 Strategic Guidelines for Green Economic Development were developed to raise the sectoral ministries' awareness of the new concept of a green economy and inform them about financial instruments for implementing green economy initiatives. They include a set of action plans and strategic documents to be adopted by the ministries to create the conditions for a green economy. The Guidelines invited the regulated community and State-owned companies to develop green economy action plans. However, the Guidelines do not set concrete goals, activities or deadlines and there are no institutional mechanisms for coordination and monitoring.

Source: UNECE (2014). Environmental Performance Review of Croatia – Second Review

2.2 International level frameworks

OECD Green Growth Strategy. Many OSCE participating States are also members of the OECD and thus the OECD Green Growth Strategy is a relevant framework for them. The OECD launched its Green Growth Strategy in 2011. The document provides concrete recommendations and measurement

² The Flemish region of Belgium has both approaches.

tools to support countries' efforts to achieve economic growth and development, while at the same time ensure that natural assets continue to provide the ecosystem services on which well-being relies. The strategy proposes a flexible policy framework that can be tailored to different country circumstances and stages of development. The OECD has developed an indicator-based framework for measuring progress on green growth.

The Future We Want. At the global level, the main political framework for promoting the transition to a green economy is the outcome document of the 2012 United Nations Conference on Sustainable Development (Rio+20), *The Future We Want*. The two main themes of the conference were the transition to a green economy and the institutional framework for sustainable development. *The Future We Want* discusses green economy in the context of sustainable development and poverty eradication in paragraphs 56-74. The document places a strong emphasis on the social dimension, and it encourages States to develop and implement green economy policies. It does not, however, make any link between a green economy and security issues.

Transforming Our World: the 2030 Agenda for Sustainable Development. The outcome document of the 2015 United Nations Summit, which sets the Sustainable Development Goals, does not make an explicit reference to green economy or green growth. It rather refers to “sustained, inclusive and sustainable economic growth”, which is then listed as “Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”. One of the 10 targets under Goal 8 is “8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead”. At the same time, the 2030 Agenda reinforces the close relationship between peace, security, and development by recognizing not only that peace and security are prerequisites for achieving sustainable development, but that sustainable development provides the pathway to peaceful societies.

Pan-European Strategic Framework for Greening the Economy. It was endorsed by ministers at the Eighth Environment for Europe Ministerial Conference held in Batumi (Georgia) in 2016. It provides a platform for a coordinated approach to a green and inclusive economy across member States of the pan-European region.³ The Batumi Initiative on Green Economy (BIG-E), which consists of voluntary commitments to operationalize the Strategic Framework until 2030, was launched at the Conference and is promoted on GGKP.⁴ The Strategic Framework and BIG-E are serviced jointly by UNECE and the United Nations Environment Programme (UNEP). These tools are voluntary in nature and support countries' efforts in transitioning to the green economy and, at the same time, contributing to the implementation of the Sustainable Development Goals. The Strategic Framework builds on policy efforts to implement the outcomes of the Rio+20 Conference and the 2030 Agenda for Sustainable Development in addition to the knowledge base and good practices developed in the region. In addition to overarching actions, the Strategic Framework include nine focus areas (1) improving the measurement and valuation of natural capital, (2) promoting the internalization of negative externalities and the sustainable use of natural capital, (3) enhancing ecosystems and ecosystem services as part of ecological infrastructure, (4) shifting consumer behaviour towards more sustainable consumption patterns, (5) developing clean physical capital for sustainable production patterns, (6) promoting green and fair trade, (7) increasing green and decent jobs while developing the necessary human capital, (8) improving access to services, healthy living and well-being, and (9) promoting public participation and education for sustainable development.

³ The pan-European region comprises the 56 member countries of the UNECE. They are: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America and Uzbekistan.

⁴ <http://www.greengrowthknowledge.org/big-e>.

Green Economy and Environment (GREEN) Action Programme Task Force. Ministers at the Batumi Environment for Europe Ministerial Conference welcomed the work and extended the mandate of the GREEN Action Programme Task Force (formerly, the Environmental Action Programme Task Force), which is hosted by OECD. The GREEN Action Programme Task Force work focusses on assisting countries of the South Caucasus, Central Asia and Eastern Europe in greening their economies by promoting the integration of environmental considerations into the processes of economic, social and political reform. It does so by promoting analysis and exchange of experience among countries on key environmental policy and institutional reforms; developing guidelines and best practices for environmental policy and institutional reforms; identifying ways for environmental policy integration into the broader process of economic and political reform; working with donors and International Financial Institutions to upgrade institutional and human capacities for environmental management and to remove obstacles to investments in the environmental sector; implementing demonstration projects which can serve as models for environmental policy reform; and co-operating with the governmental and non-governmental sectors and the Regional Environmental Centres in the Caucasus, Central Asia and Eastern Europe, to build public and political support for environmental protection.

Relevant multilateral environmental agreements. A number of environmental treaties support the transition to a green economy. Most relevant are the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, its Protocol on Pollutant Release and Transfer Registers – progress in the implementation of which at the national level could serve as a key indicator to measure the success in greening the economy – and the Protocol on Strategic Environmental Assessment to the Espoo Convention on Environmental Impact Assessment in a Transboundary Context (see also EaP GREEN in box 5). In addition, national policy dialogues under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes are particularly supportive of greening the economy, through mainstreaming of the environment into other sectors’ policies.

European Union’s *acquis communautaire*. The European Union is driving policymaking in its member States and it is also influencing policymaking in many other OSCE participating States that are not part of the European Union. In European Union accession countries this is reflected in the Association agreements. More generally the European Union influences policymaking in non-European Union member States through its technical assistance and the financing from both the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank, which apply European Union environmental standards. In the field of energy, European Union policies influence 35 OSCE participating States through direct membership and the Energy Community Treaty, which requires adoption of the “*acquis communautaire*”, and by implication of the complete suite of European Union energy efficiency policies.

3. Action taken to green the economy in the OSCE region

3.1 Actions by countries

Countries in the OSCE region are undertaking efforts to green their economies. Despite many challenges, there are good examples of the successful implementation of green economy policy packages, in particular sectoral ones, which showcase how countries can green or start to green their economies (UNECE, 2016). Countries have developed a number of approaches, programmes and initiatives to foster a more efficient use of natural resources and lessen the burden on ecosystems and the natural asset base. Among them are the circular economy, sustainable ecosystem or natural resource management frameworks, environmentally sustainable sectoral approaches, nexus approaches to resource management, education for sustainable development, spatial planning, public spending on science and research, access to good practice and monitoring frameworks. In the region, increased attention is being given to actions and instruments incentivizing the private sector to innovate for and invest in greening production processes and to offer green products and services. Sustainable public procurement, market-based instruments and regulatory measures, but also information-based tools, like standards and labelling schemes, are among these. Policy and fiscal measures in support of innovative enterprises (start-ups) are also an important driver of private engagement in the development of green technologies.

Actions taken and progress vary from country to country. Examples of specific actions taken include work on improving inter-ministerial coordination (Belarus, Republic of Moldova, Ukraine), making the case for the green economy (macro-economic scoping for Azerbaijan, Belarus, Republic of Moldova, Montenegro, Serbia and Ukraine), and expressing high-level political commitment (Green Economy National Action Plans in Belarus, Georgia and Republic of Moldova). Kazakhstan is leading two supra-national initiatives: the Green Bridge Partnership and the Centre of Excellence for Green Technologies and Investments. Among OSCE participating States belonging also to the OECD, several are at the forefront of the transition towards a green economy, but no country leads in all areas and too often progress has been insufficient to protect the natural asset base (OECD, 2017). Denmark, Iceland, Luxembourg and the Netherlands consistently rank highly across most dimensions of the OECD monitoring framework, while the countries showing most progress since 2000 are Denmark, Estonia, Italy, Slovakia and the United Kingdom.

Box 3. Addressing water security through the transition to a Green Economy in Kazakhstan

Kazakhstan expects an upward trend in water consumption and reduced availability of water resources which threatens six of its eight water basins by 2020. Given that 45% of water resources in Kazakhstan are replenished from external sources, cross-border co-operation is vital to water security, requiring a comprehensive, integrated and strategic approach. Such an approach is being developed in the framework of Kazakhstan's transition to a Green Economy. Kazakhstan adopted in 2013 the Concept on transition to a Green Economy, which lays the foundation for a completely new development paradigm. In 2015, building on a decade of water sector reforms and increases in domestic funding, a EU-funded project led by UNDP with support from UNECE was launched to support Kazakhstan's transition towards a Green Economy model that focuses on the water sector and will be supporting improvements in governance and increase in resource efficiency.

Source: UNECE website

Due to energy security concerns, energy efficiency and renewable energy promotion are high on the political agenda. These fields are the focus of the rest of this sub-section.

Energy efficiency. All sub-regions of the OSCE region have been cutting their energy intensity, sharply narrowing the absolute gaps between them (see Figure). The greatest factor underpinning improvements in energy intensity over the period since 1990 has been the restructuring of formerly planned economies. There is still enormous potential for efficiency improvements throughout the OSCE region in transport, buildings, industry, and the upstream segments of the energy sector. For example, improving the energy efficiency of European Union buildings (35% of which are over 50 years old) could result in a reduction in the region’s total energy consumption by an estimated 5–6%. Western Europe represents the largest market for energy efficient buildings, which is attributable to its high energy prices and strict building codes.

Renewable energy. All sub-regions of the OSCE region have increased the share of renewable energy consumption in total final energy consumption, South East Europe being the fastest (see Figure). Renewable energy share in total final energy consumption nearly doubled from 1990 to 2014 across the UNECE region from 5.9% to 11.5%. This has been made possible by technological advances, fuelled by government subsidies, that are making renewable sources cost competitive, in particular photovoltaics. Although the rate of growth has been significant, renewables represent only a small share of total primary energy supply. Doubling the share again from 2012 levels will depend on the potential for renewable energy (which varies considerably from country to country based primarily on climate), prevailing energy market conditions, and available socio-economic drivers.

Progress in energy efficiency and renewable energy

FIGURE 11.12 All subregions of the Europe, North America, and Central Asia region cut their energy intensity, sharply narrowing the absolute gaps between them
Primary energy intensity (MJ/2011 PPP \$)

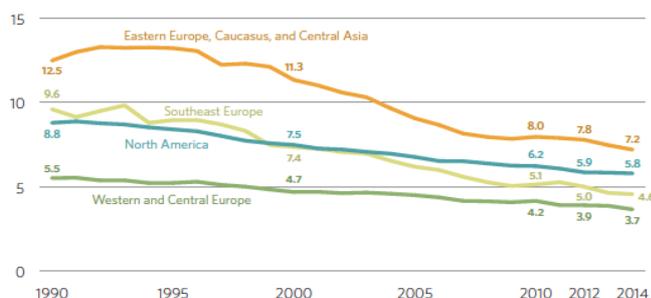
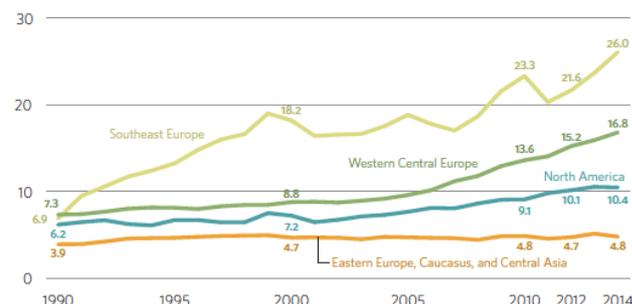


FIGURE 11.16 All subregions in the Europe, North America, and Central Asia region, Southeast Europe the fastest, increased the share of renewable energy consumption in total final energy consumption in 1990–2014
Share of renewable energy consumption in total final energy consumption (%)



Source: International Energy Agency and World Bank (2017)

Box 4. Energy Efficiency: Retrofitting building stock in the European Union

The Energy Performance of Buildings Directive of the European Union requires member States, *inter alia*, to put policies in place that improve the state of the building stock and change consumer behaviour. Retrofitting allows businesses and house owners to reduce their buildings’ environmental impact, while at the same time cuts running costs and energy bills, and improves building performance. Adequate policy action has stimulated building owners to invest on a large scale in increasing energy performance by improving the insulation of walls and windows or improving heating systems. This resulted in job creation in the construction sector (i.e., construction works, construction material production and distribution) and helped reduce energy loss from buildings, contributing to decreasing heating bills and curbing emissions of air pollutants and greenhouse gases from collective or individual heating, thereby improving ambient air quality and mitigating climate change. However, only those approaches that include measures aimed at upgrading skills, qualifications and innovation will also have lasting effects on the competitiveness of the sector. Those who could suffer losses from these policy packages include energy and heating fuel distributors: for every 1% of improvement in energy efficiency, European Union gas imports fall by 2.6%.

Source: UNECE (2016) Greening the economy in the pan-European region

Box 5. Renewable Energy: Progress and prospects in South East Europe, Eastern Europe and Central Asia

Macroeconomic developments and the persistence of fossil fuel subsidies have hampered the development of renewable energy and energy efficiency markets in the countries of South East Europe, Eastern Europe and Central Asia. South East Europe has interesting potential for cost-competitive deployment of solar and wind power generation. However, renewable energy is being challenged politically, given the cost of government support policies. In the heating sector, the use of solar water heaters and biomass could be expanded in both South East Europe and Eastern Europe. Ukraine, the region's largest renewable energy player, is working to make its market more attractive to investors in Eastern Europe. In the Caucasus, Azerbaijan is creating opportunities for renewable energy development with the government's support. Georgia is moving from hydropower to other renewable energy sources, such as wind. Armenia is opening opportunities, especially for solar photo-voltaic, with a strong government push. In Central Asia, both Kazakhstan and Uzbekistan plan to develop utility-scale power generation projects, based on government support combined with financing from development banks (the EBRD and the Asian Development Bank, respectively). Kyrgyz Republic and Tajikistan (with the exception of hydropower) remain on the margins of renewable energy deployment, despite their need to improve the reliability of electricity and heat supplies. Development of the vast renewable energy resource potential in the Russian Federation has been slow, as considerable localisation requirements impede project development. Investment across the region, except in the Russian Federation, continues to be driven by international donors and development banks. Examples of past investments (Georgia, Kazakhstan and Ukraine), as well as plans by the governments to attract additional investors (Armenia, Georgia, Kazakhstan, Ukraine and Uzbekistan), suggest the potential for future growth.

Source: UNECE (2017) UNECE Renewable Energy Status Report

3.2 Actions by international organisations

International organisations in the OSCE region support countries in their joint efforts for the green transition through a wide range of regional cooperation activities. These include organizing meetings and workshops to strengthen leadership for green economy, as well as to enable peer learning or to develop and share green economy knowledge or establish the Shared Environmental Information System.⁵ For example, the OECD and the UNECE assess progress on green growth/transition to a green economy through their respective Environmental Performance Review processes. International organizations also facilitate pilot projects on green economy for the application of appropriate instruments, or for the development and implementation of various national green economy strategies, road maps or action plans. They support joint efforts to introduce measurement approaches, including indicators for measuring the green transition.

A significant part of the support is organised through multi-agency partnerships (see Box 5). Examples of other projects include the United Nations Development Programme (UNDP) and OECD to a pilot project on the integration of green growth indicators in Kyrgyzstan; the Rovaniemi Action Plan for the Forest Sector in a Green Economy developed by UNECE; or the work of the Regional Environmental Centres supporting resource efficiency, circular economy and sustainable consumption and production practices in the pan-European region.

The number of programmes and agencies involved varies across sectors. The preliminary results of the on-going mapping of activities in support of greening the economy in the pan-European region carried out by UNECE indicate that nine agencies (GGKP, the International Labour Organization, International Telecommunications Union, OECD, OSCE, UNDP, UNECE, UNEP and the World Intellectual Property Organization) carry out 87 programmes across 14 sectoral categories. Each programme may target more than one category. In each sector there are multiple agencies providing support – as many as seven for the economy-wide, energy, and waste categories. OSCE’s six programmes represent 7% of the total number of programmes and target 7 sectoral categories.

Table 2. Sectoral mapping of international agencies’ support for greening the economy

Sectors	Number of agencies	Number of programmes
Economy-wide	7	31
Energy	7	27
Waste	7	17
Other	5	16
Manufacturing	5	13
Transport	4	12
Water	5	12
Agriculture	4	11
Forestry	5	13
Housing, buildings, construction	3	6
Fishing	3	5
Mining	2	5
Tourism	2	2
Education	1	1

(preliminary results)

Source: UNECE data (preliminary)

⁵ The Shared Environmental Information System a collaborative initiative of the EC together with the European Environment Agency and the 39 countries of the European environment information and observation network (Eionet) launched in 2009 and being developed across the UNECE region following a decision taken at the 7th Environment for Europe Ministerial Conference (Astana, 21-23 September 2011) .

Box 5. Inter-agency partnerships to support the transition to a green economy

Green economy is a field where there is strong inter-agency collaboration and co-operation, following the 2012 United Nations Conference on Sustainable Development (Rio+20). The main inter-agency partnerships relevant to the OSCE region include:

EaP GREEN. The "Greening Economies in the European Union's Eastern Neighbourhood" (EaP GREEN) programme was launched in 2013 as a response to the EU's commitments in Rio+20 and other fora. The programme is led by OECD and includes UNDP, UNECE and the United Nations Industrial Development Organization as contributing partners. This EU-funded programme assists six countries of the European Union Eastern Neighbourhood Partnership (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine) in progressing faster towards a green economy framework by assisting the development of strategic plans and policies and the implementation of demonstration activities on resource-efficient and cleaner production, organic agriculture and sustainable public procurement.

PAGE. The Partnership for Action on Green Economy (PAGE) was launched in 2012 at Rio+20 as a mechanism to coordinate United Nations action on green economy. It currently comprises five United Nations agencies: UNEP, the International Labour Organisation, UNDP, the United Nations Industrial Development Organization and the United Nations Institute for Training and Research. Two OSCE participating States are part of PAGE: Kyrgyzstan and Mongolia.

GGKP. The Green Growth Knowledge Platform (GGKP) was established in January 2012 by the Global Green Growth Institute,¹ the Organisation for Economic Co-operation and Development, the United Nations Environment Programme and the World Bank. It is a global network of international organizations and experts that identifies and addresses major knowledge gaps in green growth theory and practice. By encouraging widespread collaboration and world-class research, the GGKP offers practitioners and policymakers the policy guidance, good practices, tools, and data necessary to support the transition to a

3.3 Actions by the OSCE

A range of OSCE activities undertaken by the OCEEA⁶ and OSCE Field Operations support the principles that underpin the greening of the economy – reduction of environmental risks and resource efficiency. Recognizing the close connection between the environment and security, the OSCE aims to strengthen co-operation on environmental issues as part of a broader effort to prevent conflict, build mutual confidence and promote good neighbourly relations. The OCEEA implements projects in close co-operation with OSCE field operations; organizes an annual Economic and Environmental Forum; and holds a yearly Economic and Environmental Dimension Implementation Meeting to review the implementation of commitments in the economic and environmental dimension and to identify priorities for future work. The OSCE supports a network of 60 Aarhus Centres⁷ in 14 countries that are valuable platforms for co-operation on the reduction of environmental risks and are also well-placed to promote a green economy and resource efficiency.

The OSCE tackles environmental and security issues in many different fields where improvements contribute to the transition to a green economy. It does so by working in partnership with international organizations, national governments and civil society – Box 6 describes one of those partnerships. Overall, the OSCE’s environmental activities addressing transboundary water management, climate change and security, disaster risk reduction, hazardous waste management, and good environmental governance as well as energy security contribute to reducing environmental risks, including those at transboundary level, and avoiding potential tensions related to natural resources. These activities support confidence and trust building within and across borders and add to promoting the green economy. More recently, the OSCE has started to support activities specifically designed to promote and facilitate the transition to a green economy. Examples of specific activities are listed in Table 3.

Box 6. OSCE and the Environment and Security Initiative (ENVSEC)

As one of the founding members, since 2003, the OSCE is actively engaged in the Environment and Security Initiative (ENVSEC) which is a partnership of the OSCE, the Regional Environment Centre for Central and Eastern Europe, UNDP, UNECE and UNEP. ENVSEC’s mission is to promote sustainable resource management and environmental co-operation in order to contribute to the reduction of environment and security risks through strengthened cooperation among and within countries in Central Asia, Eastern Europe, Southern Caucasus, and South-Eastern Europe. ENVSEC is a practical effort which aims to provide or stimulate the provision of (i) vulnerability assessments, early warning and monitoring of environment and security risks, particularly with regard to catastrophic incidents; (ii) improved capacities of national institutions for more effective environment and security policies, and stronger institutional dialogue; (iii) technical expertise and financial resources mobilized for clean-up and remediation; and (iv) increased knowledge and awareness about the linkages between environment and security risks, and enhanced participation of interested actors in activities that aim at preventing and reducing these risks.

Energy efficiency and renewable energy are a particular focus of the work of the OSCE in the economic and environmental dimension. The OSCE covers both economic and environmental aspects of energy security through a strategic dialogue among participating States which include some of the world’s largest energy producers, consumers, and transit countries. In particular, the OSCE supports participating States through activities carried out in its field offices in fostering energy security through energy efficiency and renewable energy, strengthening the resilience of critical energy networks against natural and man-made disasters and de-risking investments in the energy sector. In the energy field, the OSCE closely co-operates with international specialized organizations, namely the International Energy Agency, the Sustainable Energy Division of UNECE, UNDP, the International Renewable Energy Agency, EBRD, the International Energy Charter and the World Energy Council.

⁶ Office of the Co-ordinator of OSCE Economic and Environmental Activities

⁷ <https://aarhus.osce.org/>

Table 3. Examples of green economy-related activities supported by the OSCE

<p>Greening the economy</p>	<ul style="list-style-type: none"> • Promoting the principles of green economy among stakeholders (Serbia) • Development of country-specific Green Growth Indicators (Armenia). • Workshops to promote the green economy and enhance the national legislation for a transition to a green economy (Kazakhstan) • Training events to raise awareness of women entrepreneurs in opening and running their own businesses through the use of green technologies (Kazakhstan) • Establishment of the Green Technologies Transfer Centre (Kazakhstan) • Capacity development and awareness raising for the integration of green economy mechanisms in the business sector (Kyrgyzstan) • Promotion of circular economy practices (Serbia), recycling (Kyrgyzstan), and sustainable waste management (Bosnia and Herzegovina) • Develop the capacities of the Aarhus Centres to deepen their understanding of the green economy concept and identify how they can contribute further to supporting efforts in this field.
<p>Environmental risk reduction and management</p>	<ul style="list-style-type: none"> • Wildfire management (South Caucasus, Central Asia, Mongolia, Chernobyl-affected areas in Eastern Europe). • Trainings in sustainable water management (Kazakhstan, Tajikistan, Turkmenistan) • Efficient water distribution through water user associations (Kyrgyzstan) • Facilitating river basin co-operation in Central Asia (support in establishment and operation of the Chu-Talas Commission between Kazakhstan and Kyrgyzstan), Eastern Europe (development of the Dniester River Basin Agreement and facilitating negotiations/transboundary dialogue between the Republic of Moldova and Ukraine) and the Southern Caucasus (development and negotiation of the draft Kura River Basin Agreement between Azerbaijan and Georgia). • Hazardous waste management (Tajikistan) • Strengthening stakeholder engagement in the remediation of Uranium Legacy Sites (Kyrgyzstan, Tajikistan, Uzbekistan) • Assessment of hazardous waste hotspots (Armenia, Georgia) • Strengthening cross-border cooperation and learning in Disaster Risk Reduction (South Eastern Europe and Central Asia) • Strengthening the capacities of Aarhus Centres in Disaster Risk Reduction to enhance awareness of local communities (Albania, Armenia, Bosnia and Herzegovina, Kyrgyzstan, Republic of Moldova, Serbia, Tajikistan)
<p>Resource efficiency and renewable energy</p>	<ul style="list-style-type: none"> • OSCE Sustainable Energy Initiative for the Mediterranean Partners for Co-operation (including field studies, facilitating investments and transfer of know-how and technology) • Developing a solar roadmap for Turkmenistan • Expert workshop on green energy efficiency standard in the housing sector in (Kazakhstan) • Support to the Establishment of a Centre for Green Technologies and Investments (Kazakhstan) • Support toward solar-powered street lighting in Tashkent • Field Study in Solar Energy and Energy Efficiency to Austria

Source: OSCE (2017a, 2017b, 2017c), OSCE website and OSCE submission to the UNECE survey of green economy activities

4. Challenges and policy gaps regarding greening the economy in the OSCE region

4.1 Challenges

Overview. The efforts of countries in the OSCE region to contribute to the transition to a green economy are undermined by the lack of green economy policy and strategic frameworks or other policy and strategic frameworks with green economy considerations. Challenges in pursuing green economy policies are related, but are not limited, to the adequate application of policy impact analysis, the absence of strategies and stable green development conditions, pressures created by the economic downturn and related difficulties in mobilizing capital, a lack of necessary green skills, and knowledge and pressures from interest groups or lobbies. While success in pursuing green economy programmes and initiatives depends on the introduction and enforcement of a range of policy instruments (clear rules and regulations, the application of price signals discouraging environmental pollution and resource depletion, transparency, effective engagement of civil society and the private sector, and close cooperation between countries) the effectiveness of these instruments, and the ability to use them effectively, is weak in many OSCE participating States.

Knowledge development and sharing. Moving towards a green economy requires an appropriate evaluation of information to track progress, support policy development and guide decision-making. In the pan-European region, however, assessments of the transition to a green economy at the national level have so far been undertaken only by a limited number of countries.

Strategy and policy development. National green economy strategies and policy frameworks, with detailed objectives, goals and/or targets have been developed only by a few countries in the region.

Public expenditure programmes. While most countries in the region are using public investment programmes to green certain aspects of their economies, ambitions are limited by a context of tight public budgets.

Monitoring frameworks. Monitoring can help track changes and progress in the application of strategies and programmes. However, since a rather limited number of countries have developed such strategies and programmes, it is not surprising that monitoring frameworks are not available either.

Indicators. While efforts to develop green economy indicators are springing up across the region, they sometimes use different approaches, which may hinder international comparability. It will be therefore important to ensure that such indicators are developed as part of a broader monitoring scheme used to support the implementation of the strategic framework for the green economy in the pan-European region. The work of OECD on green growth indicators, which are compatible with UNECE datasets, needs to be taken into account.

High-level oversight and coordination. Institutional and governance capacity to guide wide-ranging policy reform and to overcome institutional inertia and silos around economic, social and environmental policymaking is an essential condition for greening the economy, in both developed and transition economies of the region. This can be achieved through a combination of strengthening governance from the top down, increasing cooperation across government and enhancing collaboration and collective action. In the pan-European region only a few countries have set up an official high-level body for oversight and coordination of public policy on green economy.

Capacity development for public administration staff. Many countries are developing the operational capacities of public administration staff on topics that are related to the green economy, which is a positive development. At the same time, the training is often topic-specific, whereas a more strategic level training for managing the transition to a green economy throughout the policy cycle, from issue identification to policy evaluation, is not provided.

4.2 Policy gaps

Knowledge base. Countries may wish to continue pursuing thematic studies, possibly with the support of scientific institutions and international organizations, as well as the active involvement of business, in order to develop methodologies for new policy actions, or new applications of policy actions, which should help achieve the specific green economy goals even more effectively. Such new methodologies could further enrich the green economy knowledge already available with toolboxes and platforms, for example the Green Growth Knowledge Platform and the UNECE green economy toolbox. Countries may also wish to develop green economy-wide assessments to identify opportunities and better understand where “low-hanging fruit” actions for the green transition lie, and hence to make them more effective. Finally, countries may wish to contribute to a common monitoring and evaluation framework to assess and guide progress in the transition to a green economy. One building block is the identification of common green economy indicators.

Governance and institutional arrangements. Countries may wish to put in place good coordination between government actors and establish an effective leadership for the green economy transition. Relevant authorities in the countries may wish to initiate a discussion at the government level to this end. Countries may also wish to focus more attention on enhancing governmental staff capacities for green economy, including by establishing a dialogue with the business community. Efforts could be directed at putting in place a systematic approach to capacity development.

Policy framework. Countries may wish, building on the common objectives and goals, to identify their own specific goals, and develop green economy strategies at the national level. Clear goals and well-articulated strategies will accelerate the transition process and make it a logical sequence of actions. The national strategies should be prepared with the active participation of business.

Implementation. Countries in the OSCE region may wish to expand the application of green economy instruments, with the aim of increasing green economy investments. National strategies, building on the Pan-European Strategic Framework, will help apply the instruments in a more effective and efficient way. Countries may also wish to consider how to finance green economy programmes and projects, in particular how to invest in green infrastructure and stop or limit brown economy activities, including through the mobilization of private financing

Box 7. Focus on greening the energy sector

Challenges

- Attempts to improve **energy efficiency** often fall short because of a lack of effective national policy frameworks: policies that lower energy prices through excessive subsidies encourage wasteful consumption; production and consumption subsidies distort markets; housing stocks are poorly managed; land use management is inefficient; new participants face barriers to entry; there are inadequate norms and standards; and the statistics and information to manage energy use and track progress are incomplete. In addition, there is often a lack of public awareness and education about the long-term economic and social benefits of action to improve energy efficiency and industrial productivity.
- Wider uptake of **renewables** requires addressing barriers to fair competition vis-à-vis conventional technology (without resorting to long-term subsidies), implementing stable long-term energy policy frameworks in a future energy system context, and deploying innovative and targeted financial mechanisms.

Policy gaps

- **Information.** There is a need to develop appropriate indicators that show progress on energy for sustainable development. Many countries need support to establish energy statistics programmes that monitor and report key energy production and consumption variables, and that are fully integrated into other economic and social national statistical efforts. It will be necessary to collect data on energy production and consumption patterns consistent with the desired future energy system and to strengthen the analytical capacity of the different interactions involving energy policy in order to provide innovative sustainable policy approaches to address multidisciplinary energy-related issues.
- **Normative instruments.** A full range of standards and best practice guidance is needed throughout the energy system including development of regional and international norms covering interconnections, interoperability and trading.
- **Investments and financing.** Achieving greater interconnectivity and mutually beneficial economic interdependence will require investment in energy infrastructure projects to enhance energy efficiency, integrate renewable energy, and optimize energy resource utilization. Encouraging interconnection infrastructure projects among countries with complementary energy resources is a cost-effective way to enhance mutual energy security. This will involve mobilizing significant financial resources. It will be necessary to align investment incentives with the objectives of the 2030 agenda.
- **Technology.** Research and development and commercial introduction of new technology, capital, and management skills are essential to support the needed transitions. It will be important to extend international collaboration on research and development of new technology and exchange lessons learned about large scale deployment of low carbon energy sources.
- **Open dialogue.** It will be important to maintain an open dialogue among energy-producing, -transit and -consuming countries on energy security, technology and policy

Source: UNECE (2017) Energy for Sustainable Development in the UNECE region

5. Conclusions and recommendations for possible OSCE follow-up activities

5.1 Conclusions

Conclusion 1. There is a significant body of OSCE commitments that are relevant to the transition to a green economy, but there are no explicit OSCE commitments on the green economy.

Conclusion 2. OSCE participating States are making progress in those commitments, though at different paces and in different fields. The OSCE region faces important challenges in the transition to a green economy.

Conclusion 3. The transition to a green economy is relevant to the OSCE comprehensive approach to security, as it is expected to deliver significant security benefits.

Conclusion 4. There are already a number of green economy policy frameworks at the global and regional level. Policy frameworks at national level are often weak or non-existent, however.

Conclusion 5. For the most part, existing green economy frameworks and activities do not recognise the links with peace, stability and security.

Conclusion 6. The knowledge base on the links between green economy and security is underdeveloped.

Conclusion 7. Several other international organisations are working on the field of green economy, both at the normative and the implementation levels, and often in partnership.

Conclusion 8. The OSCE, uniquely, can bring a security perspective to the green economy agenda and mobilise the diplomatic and security communities to support the transition to a green economy.

Conclusion 9. The OSCE has already developed experience in the field of the green economy, mostly at the implementation level and in partnership with other international organisations.

Conclusion 10. The OSCE executive structures, including OSCE field operations, as well as Aarhus Centres supported by the OSCE could support efforts by countries on a long-term basis, which is key if the transition to a green economy is to be successful.

Conclusion 11. The OSCE's comprehensive approach to security, field presence, convening power and potential as a platform to raise awareness and share best practices among different stakeholders, including the private sectors, is recognised and valued by other partners working on the transition to the green economy and related fields.

Conclusion 12. There is potential and demand for the OSCE to increase its impact on the transition to the green economy in the OSCE region.

Conclusion 13. The transition to a green economy in the OSCE region represents a very large endeavour that could benefit from any amount of political, financial and technical resources that the OSCE would be able to mobilise.

5.2 Recommendations for possible OSCE follow up

Recommendation 1. Building on previous OSCE green economy-related commitments, the OSCE's experience in this field, and the outcomes of the 8th Environment for Europe Ministerial Conference, develop an OSCE food-for-thought paper on the green economy. Such a food-for-thought paper is recommended to identify the links between the transition to a green economy and improved security, define a range of green economy-related actions that contribute to deliver security benefits (including energy efficiency and renewable energy use), and set priorities for OSCE engagement in the green economy field. Based on the food-for-thought paper, consider drafting and adopting a Ministerial Council Decision on issues related to green economy and environmental co-operation, that

endeavours to integrate green economy considerations into the broader work of the OSCE, mobilise current OSCE institutional resources, and further develop OSCE capacities to deliver on this new agenda.

Recommendation 2. Encourage participating States to develop or improve national institutional and policy frameworks to promote the transition to a green economy; take the lead in raising awareness of the security benefits of the transition to a green economy among relevant stakeholders, including diplomatic and security communities, in the OSCE region; and support the participating States, upon their request, to gather political support among the diplomatic and security communities to promote the transition to a green economy and in particular the development of national green economy frameworks.

Recommendation 3. Support the participating States, upon their request, in: (a) strengthening their capacities to manage the transition to a green economy (including sustainable energy topics) with a particular focus on developing national green economy frameworks that integrate security considerations; (b) raising awareness about the transition to a green economy, including on circular economy approaches, and to promote community-based efforts, including, where appropriate, through Aarhus Centres, civil society organizations and other multi-stakeholder partnerships and initiatives; and (c) identifying and implementing green economy actions that will deliver security benefits. In addition, facilitate the identification of regional green economy projects that can deliver security benefits, encourage international financial institutions to fund their implementation, and further develop the knowledge base on the links between the transition to a green economy and security, building on OSCE experiences and those of participating States and other partners.

Recommendation 4. Further engage in defining the regional agenda on the transition to a green economy and support international dialogues for technical and knowledge exchange on the green economy field (including good practices and lessons learned) by bringing in a green economy and security perspective, facilitating the participation of diplomats and security experts, sharing the results of country-level activities on the green economy and security field, and helping to articulate the security benefits of green economy actions. In addition, assess OSCE's current green economy-related activities and its engagement in inter-agency partnerships and engage more actively in inter-agency partnerships (such as the GREEN Action Programme Task Force, PAGE, GGKP, etc.) where the OSCE, as a regional security organization, can add most value based on its comparative advantages.

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