



Economic Commission for Europe**Committee on Sustainable Energy****Expert Group on Resource Management****Fourteenth session**

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Item 8 of the provisional agenda

Work plans for 2022-2023 and 2024-2025 and strengthening the Expert Group on Resource Management**Draft Work Plan for the Expert Group on Resource Management for
2024-2025****Prepared by the Bureau of the Expert Group on Resource Management**

1. The United Nations Economic Commission for Europe (ECE) Executive Committee, in addressing matters related to the Committee on Sustainable Energy (ECE/EX/2019/L.10), has mandated the Expert Group on Resource Management to carry out concrete, results-oriented activities with the objective to develop, promote and support the implementation of a global system which can be used as a tool for the sustainable management of natural resources to support attainment of the 2030 Agenda for Sustainable Development (EXCOM/CONCLU/108 of the 108th meeting of EXCOM).¹
2. According to its Terms of Reference, the Expert Group focuses on the development, promotion and support of the implementation of a global system which can be used as a tool for the sustainable management of natural resources to support attainment of the 2030 Agenda for Sustainable Development. The work includes the development and deployment of a United Nations Resource Management System (UNRMS) grounded in the United Nations Framework Classification for Resources (UNFC) comprising principles, specifications, guidance, application protocols (procedures and checklists) and best practices to aid sustainable management of energy, raw materials and other resources.
3. The mandate for the Expert Group is approved until December 2024.

I. Cross-cutting activities

4. The Expert Group will engage in cross-cutting activities where applicable and when requested by the Committee on Sustainable Energy, including:
 - (a) Contribute, as requested by the Committee on Sustainable Energy and within the scope of the Group of Experts' expertise, to work on building resilient energy systems in the ECE region. This support is elaborated in section II;

¹ https://www.unece.org/fileadmin/DAM/commission/EXCOM/Agenda/2020/EXCOM_109_17_Feb_2020/Item_2_EXCOM-Conclu-108.pdf

(b) Engage, in cooperation with other Groups of Experts and under the leadership of the Committee on Sustainable Energy, in work facilitating the transformation and greening of ECE member States' economies and energy sectors in accordance with the principles of just transition, subject to availability of extrabudgetary resources.

II. Concrete activities

5. The Expert Group has noted the powerful and positive benefits of diversity and inclusion in resource management. The Expert Group will, to the extent possible and subject to the availability of extrabudgetary resources, ensure that diversity and inclusion in resource management are reflected in its membership and during the implementation of this work plan and any capacity-building or training activities.

6. Case studies are recurrent as concrete activities and are intended to aid users of UNFC and UNRMS and support knowledge sharing.

A. UNFC and UNRMS Principles, Specifications and Requirements

Description: The Expert Group will develop, maintain and promote a comprehensive toolkit for sustainable resource management based on UNFC and UNRMS in alignment with the 2030 Agenda and in support of the UN Decade of Action.² The work will involve improving and further developing principles, specifications, guidance, application protocols, best practices and case studies to support the sustainable, transparent and equitable management of natural resources within the UNFC and UNRMS frameworks (including, but not restricted to, minerals, petroleum, renewable energy, nuclear fuel resources, injection projects, anthropogenic, groundwater and hydrogen resources) in alignment with the Sustainable Development Goals (SDGs) and climate change mitigation and adaptation. The Expert Group will coordinate with other Group of Experts under the Committee on Sustainable Energy on the Energy Resiliency Platform to ensure a comprehensive and integrated approach to energy resiliency, with a special emphasis on critical raw materials and hydrogen. Critical raw materials play a crucial role in the transition towards a low carbon economy by enabling the production of clean energy technologies and low carbon products, thereby reducing greenhouse gas emissions and contributing to a sustainable future. Hydrogen is important in the transition towards a low carbon economy as it is a clean and versatile energy carrier that can be used for a wide range of applications, including the generation of electricity, the storage of energy, and the decarbonization of various industrial sectors, thereby reducing greenhouse gas emissions and contributing to a sustainable future. Closed-loop systems, advanced data analysis using artificial intelligence and Web3, and advanced materials have the potential to reduce waste and pollution, increase resource efficiency and produce more environmentally friendly products. These advancements are crucial for sustainable resource management by 2050 and moving towards a circular, low-carbon economy. The Expert Group will explore and develop additional applications for UNFC and UNRMS to other resources³ as required and address the challenges of the food-energy-water-land nexus⁴ and progress towards a circular economy. The Expert Group will coordinate its work with the UN Working Group on Transforming the Extractive Industries for Sustainable Development and follow the call for action of the UN Policy Brief Transforming Extractive Industries for Sustainable Development⁵ to ensure alignment with global efforts to promote sustainable extractive industries. The Expert Group will develop UNFC and UNRMS to support policymaking, national resource management planning and execution, business process

² UN Decade of Action <https://www.un.org/sustainabledevelopment/decade-of-action/>

³ Where the term “resources” is used, this refers to natural resources, including anthropogenic ones, to be produced, stored or managed.

⁴ ECE (2021) Natural Resource Nexuses in the ECE region <https://unece.org/info/Sustainable-Energy/UNFC-and-Sustainable-Resource-Management/pub/355180>

⁵ UN (2021) Policy Brief: Transforming Extractive Industries for Sustainable Development <https://unece.org/info/Sustainable-Energy/UNFC-and-Sustainable-Resource-Management/pub/356790>

innovation, capital allocation, financial reporting and sustainable development implementation, with consideration of environmental and social factors as well as local needs and priorities in sustainable resource management.

Work to be undertaken: The Expert Group will continue developing and maintaining UNFC and UNRMS principles that apply to all resources and assist countries in aligning management of their resources with the 2030 Agenda. The Application Standards Task Force operating under the Commercial Applications Working Group will help preparers and users of UNFC and UNRMS by developing standards for adopting UNFC and UNRMS based on selected examples of best practices. The work will be done in consultation with the Technical Advisory Group and Working Groups, preparers, users, vendors, and academia.

Deliverables:

- (i) Updated UNFC and UNRMS principles and definitions that are required for the integrated and sustainable management of resources;
- (ii) Guidance for applying UNFC and UNRMS to resources that may be needed, for specific geographical contexts, and in support of the ECE Energy Resiliency Platform;
- (iii) Establishment of a framework for quality control, comparability and interoperability to facilitate the work of preparers and users of UNFC and UNRMS, respecting the conditions under which they work. This work should be undertaken by an Application Standards Task Force initially under the Commercial Applications Working Group.

Timeline:

- (i) Updated strategy and roadmap for UNFC and UNRMS maintenance and improvement: April 2025;
- (ii) Updated UNFC principles and definitions: April 2025;
- (iii) Updated UNRMS principles and requirements: April 2025;
- (iv) Regional guidance on the application of UNFC and UNRMS, including in support of a circular economy, energy resiliency platform and the food-water-energy nexus: April 2024 to ongoing;
- (v) Draft framework for quality control, comparability and interoperability: April 2024 to ongoing.

B. UNFC and UNRMS, including specifications, guidances and best practices for application

Description: The Expert Group will develop, maintain and update the specifications, guidance, application protocols, best practices and case studies for the application of UNFC and UNRMS for the integrated and sustainable management of resources in alignment with the 2030 Agenda and in support of the UN Decade of Action. UNFC and UNRMS principles, specifications and guidance are required to ensure effective action on climate goals and progress towards a circular economy. This activity will work with and support the Committee on Sustainable Energy in its efforts, in particular its studies on ways to reach net zero greenhouse gas (GHG) emissions and the SDGs.

Technical Advisory Group: The Expert Group will maintain a Technical Advisory Group consisting of various Working Groups to develop UNFC such that it will apply to multiple resource sectors within specific national and regional contexts.

UNRMS Sub-group: The Expert Group will maintain a UNRMS Sub-group, reporting to the Bureau, to develop UNRMS such that it will apply to multiple resource sectors within specific national and regional contexts.

Work to be undertaken:

The Technical Advisory Group will support the integrated development and application of UNFC principles, specifications, guidance, best practices and case studies for all resources to aid policy formulation, national resource management, company business process management and capital allocation.

The UNRMS Sub-group will support the development and application of UNRMS principles, requirements, guidance, best practices and case studies to aid integrated and sustainable management of resources.

Deliverables:

- (i) Coordination and facilitation of Working Groups and Task Forces in:
 - (a) Development and updating UNFC and UNRMS principles, specifications, and guidance;
 - (b) Best practice documentation and case studies on the opportunities for and challenges in using UNFC and UNRMS in various sectors.
- (ii) Review of documents developed by sectoral Working Groups, or other documents as requested by the Bureau, and responding to external requests for assistance or advice.

Timeline:

- (i) Annual report to the fifteenth session of the Expert Group, 2024;
- (ii) Annual report to the sixteenth session of the Expert Group, 2025;
- (iii) Updated versions of UNFC and UNRMS documentation as required: April 2024 to ongoing;
- (iv) Best practice documents and case studies on the application of UNFC and UNRMS for integrated and sustainable resource management: April 2024 to ongoing;
- (v) Reviews of sectoral documents and recommendations to the Bureau: April 2024 to ongoing.

C. UNFC and UNRMS specifications and guidance for Mineral Resources

Description: The Expert Group, through its Minerals Working Group will develop additional documentation that supports the use of UNFC and UNRMS for the sustainable management of mineral resources in alignment with the 2030 Agenda and in support of the UN Decade of Action. The management of mineral resources encompasses all stages of the minerals value chain, including exploration, resource assessment, mining, processing, and site closure and remediation, ensuring a responsible and sustainable approach to mineral resource utilization.

Work to be undertaken: Development and maintenance of specifications, guidance, application protocols, best practices and case studies for the application of UNFC and UNRMS to mineral resources. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with the UNRMS Sub-group and other Working Groups as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Maintain and support the implementation of specifications, bridging documents and guidance for the application of UNFC and UNRMS to mineral resources;
- (ii) UNFC and UNRMS best practices and case studies for application to mineral resources.

Timeline:

- (i) Updated specifications and, in particular an updated Bridging Document between the CRIRSCO Template and UNFC, as well as any other Bridging Documents and guidance for application to mineral resources as required: April 2024 to ongoing;
- (ii) Best practices and case studies for application to mineral resources: April 2024 to ongoing.

D. UNFC and UNRMS specifications and guidance for Petroleum Resources

Description: The Expert Group, through its Petroleum Working Group, and UNRMS Sub-group, will develop and update documentation that allows application of UNFC and UNRMS to petroleum resources in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: Maintenance of specifications, bridging documents, guidance, application protocols, best practices and case studies for application of UNFC and UNRMS to petroleum resources. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and UNRMS Sub-group as may be needed, cooperate with the Group of Experts, including on Coal Mine Methane and Just Transition, on Cleaner Electricity Systems and on Gas, as may be needed, and will report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Maintain and support the implementation of specifications, bridging documents and guidance for the application of UNFC and UNRMS to petroleum and other related resources;
- (ii) UNFC and UNRMS best practices and case studies for application to petroleum and other related resources.

Timeline:

- (i) Updated specifications, bridging documents and guidance for application to petroleum and other related resources as required: April 2024 to ongoing;
- (ii) Best practices and case studies for application to petroleum and other related resources: April 2024 to ongoing.

E. UNFC and UNRMS specifications and guidance for Renewable Energy Resources

Description: The Group of Experts, through its Renewable Energy Working Group Sub-groups, will continue to develop documentation that will allow UNFC and UNRMS to be applied to renewable energy resources in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: The Working Group and its Subgroups will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group as may be needed and cooperate with the Group of Experts on Renewable Energy, and will report to the Bureau of the Expert Group between annual sessions of the Expert Group. The Working Group will:

- (i) Maintain specifications and guidance for the application of UNFC and UNRMS to geothermal energy as required;
- (ii) Maintain specifications and guidance for the application of UNFC and UNRMS to bioenergy as required;
- (iii) Maintain specifications and guidance for the application of UNFC and UNRMS to solar energy as required;

- (iv) Maintain specifications and guidance for the application of UNFC and UNRMS to wind energy as required;
- (v) Develop and maintain specifications and guidance for the application of UNFC and UNRMS to hydro and marine energy as required;
- (vi) Develop case studies and best practices for the application of UNFC and UNRMS to renewable energy as required.

Deliverables:

- (i) Documentation that allows UNFC and UNRMS to be applied to renewable energy resources, including updated generic specifications, specifications and guidance for bioenergy, geothermal, solar, wind energy, hydro energy and marine energy;
- (ii) A series of case studies and best practices on the application of UNFC and UNRMS to geothermal energy, bioenergy, solar energy, wind energy, and hydro and marine energy.

Timeline:

- (i) Updated Geothermal energy specifications and guidance as required: April 2024 to ongoing;
- (ii) Updated Bioenergy specifications and guidance as required: April 2024 to ongoing;
- (iii) Updated Solar energy specifications and guidance as required: April 2024 to ongoing;
- (iv) Updated Wind energy specifications and guidance as required: April 2024 to ongoing;
- (v) Hydro-marine energy specifications and guidance as required: April 2024 to ongoing;
- (vi) Guidance and case studies for the application of UNFC and UNRMS to renewable energy as required: April 2024 to ongoing.

F. UNFC and UNRMS specifications and guidance for Injection Projects

Description: The Expert Group, through its Injection Projects Working Group, will develop additional documentation to support the use of the Specifications for the Application of UNFC to Injection Projects for Geological Storage (for example, storage of carbon dioxide, natural gas storage, hydrogen or other fluid waste disposal projects) in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: Provide detailed specifications, guidance and case studies for the application of UNFC and UNRMS to Injection Projects for Geological Storage. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group, as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Maintain and support the implementation of specifications and guidance for application to injection projects;
- (ii) Case studies and best practices for using UNFC and UNRMS for carbon capture and storage and hydrogen storage projects.

Timeline:

- (i) Updated specifications and guidance as required: April 2024 to ongoing;
- (ii) Case studies on injection projects: April 2024 to ongoing;
- (iii) Case studies and best practices on the application of UNFC and UNRMS to carbon capture and storage projects and hydrogen storage: April 2024 to ongoing.

G. UNFC and UNRMS specifications and guidance for Nuclear Fuel Resources

Description: The Expert Group, through its Nuclear Fuel Resources Working Group will develop additional documentation that supports the use of UNFC and UNRMS for the sustainable management of nuclear fuel resources in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: The Nuclear Fuel Resources Working Group will produce documentation on the application of UNFC and UNRMS to nuclear fuel resources. Particular attention will also be given to the integrated resource management requirements of the nuclear fuel cycle of small modular reactors (SMRs) coupled to integrated energy systems such as renewable energy and hydrogen that contribute to attaining carbon neutrality. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group as may be needed, cooperate with the Group of Experts on Cleaner Electricity Systems and other stakeholders, and will report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Maintain and support the implementation of specifications and guidance for the application of UNFC to nuclear fuel resources;
- (ii) Best practices and case studies for application to nuclear fuel resources in integrated energy systems with a life cycle assessment perspective;
- (iii) Concept note on advanced nuclear fuel cycle projects in the context of UNFC and UNRMS.

Timeline:

- (i) Updated specifications for application to nuclear projects as required: April 2024 to ongoing;
- (ii) Best practices and case studies for life cycle assessment of nuclear fuel cycle projects: April 2024 to ongoing;
- (iii) Concept note on advanced nuclear fuel cycle projects in the context of UNFC and UNRMS: April 2024 to ongoing.

H. UNFC and UNRMS specifications and guidance for Anthropogenic Resources

Description: The Expert Group, through its Anthropogenic Resources Working Group, will develop documentation that will allow UNFC and UNRMS to manage the recovery of raw materials from anthropogenic resources in alignment with the 2030 Agenda and in support of the UN Decade of Action. Anthropogenic resources, primarily mining residues, processing residues and other end-of-life wastes, have assumed importance in the current scenarios related to the circular economy in which the strategy to reduce, reuse and recycle residues is being emphasized. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Work to be undertaken: Provide specifications, detailed guidance and case studies for the application of UNFC and UNRMS to anthropogenic resources.

Deliverables:

- (i) Update specifications and guidance for the application of UNFC and UNRMS to anthropogenic resources as required;
- (ii) Best practices and case studies for the application of UNFC and UNRMS to anthropogenic resources.

Timeline:

- (i) Updated specifications and guidance for application to anthropogenic resources as required: April 2024 to ongoing;
- (ii) Best practices and case studies for application to anthropogenic resources: April 2024 to ongoing.

I. UNFC and UNRMS specifications and guidance for Groundwater Resources

Description: The Expert Group, through its Groundwater Resources Working Group, will develop documentation allowing UNFC and UNRMS to manage groundwater resources in alignment with the 2030 Agenda and support of the UN Decade of Action. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and UNRMS Sub-group as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group. The Working Group anticipates to be a Network under the International Association of Hydrogeologist (IAH) to support the link between the Working Group and the hydrogeological community on the benefits of developing UNFC and UNRMS for application to groundwater resources.

Work to be undertaken: Provide specifications, detailed guidance and case studies for the application of UNFC and UNRMS to groundwater resources.

Deliverables:

- (i) Specifications and guidance for the application of UNFC and UNRMS to groundwater resources;
- (ii) Best practices and case studies for the application of UNFC and UNRMS to groundwater resources.
- (iii) Network under IAH to strengthen link between the Working Group and the hydrogeological community on the benefits of applying UNFC and UNRMS to groundwater resources.

Timeline:

- (i) Specifications and guidance for application to groundwater resources: April 2024 to ongoing;
- (ii) Best practices and case studies for application to groundwater resources: April 2024 to ongoing.
- (iii) IAH Network: January 2024 to ongoing.

J. UNFC and UNRMS specifications and guidance for Hydrogen Resources

Description: The Expert Group, through its Hydrogen Task Force, will develop documentation allowing UNFC and UNRMS to manage hydrogen resources in alignment with the 2030 Agenda and support of the UN Decade of Action, subject to the availability of extrabudgetary resources. The UNFC- and UNRMS-based international framework will include specifications, a Life Cycle Assessment-based taxonomy, and a Guarantee of Origin of Hydrogen (GOH) system. The Task Force will consult and cooperate with the Technical Advisory Group, Working Groups, the UNRMS Sub-group and the Group of Experts on Gas, as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Work to be undertaken: Provide UNFC and UNRMS based international framework for hydrogen resource management, conduct pilot projects and case studies on its application.

Deliverables:

- (i) Subject to the availability of extrabudgetary resources, an assessment of the applicability of UNFC and UNRMS to hydrogen and, if deemed applicable, a UNFC and UNRMS based international framework for hydrogen resources;
- (ii) Subject to the availability of extrabudgetary resources, pilot projects, best practices and case studies for the application of UNFC and UNRMS to hydrogen resources.

Timeline:

- (i) Subject to the availability of extrabudgetary resources, an assessment of the applicability of UNFC and UNRMS to hydrogen and, if deemed applicable, development of UNFC and UNRMS based international framework for hydrogen resources: April 2024 to ongoing;
- (ii) Subject to the availability of extrabudgetary resources, pilot studies, best practices and case studies for application to hydrogen resources: April 2024 to ongoing.

K. UNFC and UNRMS specifications and guidance for commercial applications and financial reporting

Description: UNFC and UNRMS have been designed to meet, to the extent possible, the needs of commercial applications including financial sustainability reporting, particularly those conforming to Environmental, Social, and Governance (ESG), industry and investors in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: The Commercial Working Group has produced documentation on the application of UNFC and UNRMS for commercial applications, information quality, valuation and data reporting. The Working Group will continue this work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups, the newly established Application Standards Task Force and the UNRMS Sub-group, as may be needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group. The Working Group will follow the development of International Sustainability Standards by the International Sustainability Standards Board (ISSB).

Deliverables:

- (i) Specifications and guidance for the application of UNFC and UNRMS to commercial applications, information quality, valuation and data reporting;
- (ii) Best practices and case studies for application to commercial applications, valuation and data reporting.

Timeline:

- (i) Specifications and guidance for commercial applications, information quality, valuation and data reporting: April 2024 to ongoing;
- (ii) Best practices and case studies for application to commercial applications, information quality, valuation and data reporting: April 2024 to ongoing.

L. UNFC and UNRMS specifications and guidance for women and diversity in resource management

Description: The Expert Group, through its Women in Resource Management Working Group, will support activities that will include relevant specifications and guidance in UNFC and UNRMS pertaining to women and diversity in alignment with the 2030 Agenda and in support of the UN Decade of Action. The Expert Group on Resource Management recognized the powerful and positive benefits of diversity and inclusion in resource management and has stepped up its activities to support the achievement of the following targets of SDG 5 and SDG 8:

5.5 - Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

8.3 - Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises (MSMEs), including through access to financial services.

Work to be undertaken: This activity will explore how resource management can help attain SDG 5: Achieve gender equality and empower all women and girls, and necessary specifications and guidance are provided in UNFC and UNRMS. SDG 5 recognizes that providing women and girls with, inter alia, equal access to education, decent work, and representation in economic decision-making will fuel sustainable economies and benefit societies. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group, as may be needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Review a number of resource management projects and work to determine challenges and opportunities in enhancing performance from a gender perspective through the application of UNFC and UNRMS;
- (ii) Select sector- or country-specific cases that illustrate how the principles outlined in SDG 5 could be applied in resource management through UNFC and UNRMS;
- (iii) Case studies on successful resource management strategies, led or implemented by women in resource management, that helped career upskilling to enhance efficiency.

Timeline:

- (i) Updated specifications and guidance for women and diversity in UNFC and UNRMS: April 2024 to ongoing;
- (ii) Policy dialogue(s) on promoting gender participation in resource management: April 2024 to ongoing;
- (iii) A network of women engaged in resource management projects: April 2024 to ongoing;
- (iv) Case studies and recommendations on mainstreaming gender in resource management in a range of positions from young professionals to senior leadership: April 2024 to ongoing.

M. UNFC and UNRMS specifications and guidance for Social and Environmental Considerations

Description: The Expert Group, through its Social and Environmental Considerations Working Group, will develop and maintain specifications and guidance for Environmental, Social and Governance (ESG) in UNFC and UNRMS in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: Develop detailed specifications, principles, guidance and best practices for ESG in sustainable resource management in alignment with the SDGs. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group, as may be needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Updated specifications, principles, guidance and best practices for ESG in the management of resources according to UNFC and UNRMS, in particular, to ensure alignment with the SDGs.

Timeline:

- (i) Updated ESG principles, guidance and specifications in resource management: April 2024 to ongoing;
- (ii) Best practice documents on technical, policy and legal aspects related to accommodating ESG for the management of resources in various sectors: April 2024 to ongoing;
- (iii) Case studies on the application of UNFC and UNRMS specifications and guidance for ESG: April 2024 to ongoing.

N. UNFC and UNRMS guidance for Competency in Resource Management

Description: The Expert Group, through its Competency in Resource Management Working Group, will develop guidance to support the transparency and accountability of UNFC and UNRMS for the classification and management of natural resources in alignment with the 2030 Agenda and in support of the UN Decade of Action.

Work to be undertaken: Develop detailed guidance to support transparency, reliability and consistency of UNFC and UNRMS for classification and management of all resources. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and UNRMS Sub-group, as may be needed, and will report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Detailed updated guidance on UNFC and UNRMS competency requirements for resource reporting;
- (ii) Report on alignment between UNFC and UNRMS competency requirements and options for resources reporting and existing competency frameworks prescribed by relevant reporting standards;
- (iii) UNFC and UNRMS based competency curriculum.

Timeline:

- (i) Updated competency guidance for resource reporting: April 2024 to ongoing;
- (ii) Report on alignment between UNFC and UNRMS competency requirements and existing international frameworks: April 2024;
- (iii) UNFC and UNRMS based competency curriculum: April 2025.

O. UNFC and UNRMS guidance and best practices for the delivery of Sustainable Development Goals and progress towards the Circular Economy

Description: The Expert Group, through its SDGs Delivery Working Group, will develop documents that will support the effective use of UNFC and UNRMS to help attain the relevant SDGs, especially in the context of integrated, multi-resource energy and raw material programmes and projects.

Work to be undertaken: The Expert Group, through its Sustainable Development Goals Delivery Working Group, will produce a carefully targeted set of principles, specifications, and guidance that will direct and focus the use of UNFC and UNRMS as support tools for delivering those SDGs most critically dependent on balanced and integrated resource management. Specifications and guidance development will be supported by related sources or reference documents such as the System of Environmental-Economic Accounting (SEEA), the UN Environment Programme International Resource Panel report Mineral Resource Governance in the 21st Century and a selection of custom-built case studies. The development of closed-loop systems, the rise of advanced data analysis techniques enabled by Artificial Intelligence, Machine Learning and Web3, and the emergence of advanced materials have the potential to reduce waste and pollution, increase resource efficiency, and

lead to more environmentally friendly and sustainable products. These breakthroughs in resource management could significantly improve sustainability outcomes and help move towards a more circular and low-carbon economy. Related social considerations include stakeholder consultation and engagement, particularly concerning conflict prevention, the rights of indigenous peoples, gender equality and equitable distribution of benefits. Related economic considerations include applications of materiality and double materiality concepts to ESG investments, sustainability accounting and financial reporting. The work will be conducted in cooperation with other relevant stakeholders and international organizations. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group as needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Deliverables:

- (i) Detailed specifications, guidance, best practices and case studies on the effective use of UNFC and UNRMS for sustainable development of resources and related services that can support the attainment of relevant SDGs, progress towards closed-loop systems and reduction of GHGs;
- (ii) Case studies to demonstrate the effectiveness of UNFC and UNRMS for the realization of specific goals in "circular" resource life-cycle management, including reengineering resource flows to support and serve the circular economy transition;
- (iii) Good practices for good governance, innovative approaches, investment and financing for transformative projects on balanced, integrated management of food, energy and water resources.

Timeline:

- (i) Specifications and guidance to support the sustainability and resilience of development of resources: April 2024 to ongoing;
- (ii) Compilation of case studies in applying transformative techniques and technologies to integrated resource management: April 2024 to ongoing;
- (iii) Guidance for good governance, applications of materiality principles to ESG investment, reporting and environmental-economic accounting for transformative SDGs-delivery projects: April 2024 to ongoing.

P. Support to Implementation of UNFC and UNRMS and Partnerships in Sustainable Resource Management through a Global Network of International Centres of Excellence on Sustainable Resource Management

Description: UNFC and UNRMS support the sustainable development of diverse energy, raw material and services sectors in different geographical locations in alignment with the 2030 Agenda and in support of the UN Decade of Action. UNFC and UNRMS users need to be trained on an ongoing basis and made aware of any changes to the framework and its applications. Subject to the availability of extrabudgetary resources, the Expert Group will develop capacity-building programmes on UNFC and UNRMS through the potential establishment of a network of International Centres of Excellence on Sustainable Resource Management.

To the extent possible, the Expert Group and the Bureau will provide technical support for the network of International Centres of Excellence, including regional and national advisory services and international peer-review missions to ECE and other United Nations Member States. Initiatives such as "UNFC Guidance Europe", "UNFC and UNRMS Africa", "UNFC and UNRMS Eurasia and Asia-Pacific", "UNFC and UNRMS Latin America" and "UNFC and UNRMS West Asia" will be supported through the International Centres of Excellence.

Work to be undertaken: The network of International Centres of Excellence will provide technical support for developing concept notes, detailed project design and implementation as necessary:

- (i) Subject to the availability of extrabudgetary resources, provide and/or coordinate technical support for the implementation of regional and national UNFC and UNRMS initiatives;
- (ii) Subject to the availability of extrabudgetary funds, support the implementation of the network of International Centres of Excellence on Sustainable Resource Management.

Deliverables:

- (i) Subject to the availability of extrabudgetary resources, support national and regional initiatives for the implementation of UNFC and UNRMS: April 2024 to ongoing;
- (ii) Report and update to the Expert Group annually on the status of implementation support to the network of International Centres of Excellence on Sustainable Resource Management: April 2024 to ongoing;
- (iii) Report on extrabudgetary projects to support capacity-building activities undertaken delivered annually to the Expert Group: April 2024 to ongoing.

Timeline:

- (i) National and regional capacity-building initiatives on UNFC and UNRMS: 2024 and 2025;
- (ii) Annual reports on the status of support to implement the network of International Centres of Excellence on Sustainable Resource Management: April 2024 and April 2025;
- (iii) Annual reports on capacity-building activities presented to the Expert Group: April 2024 and April 2025.

Q. Communications, Promotion and Outreach

Description: The Expert Group, through its Communications Working Group, will implement the agreed promotion and outreach strategy in alignment with the 2030 Agenda and in support of the UN Decade of Action. The Working Group will support communications, promotion and outreach in coordination with other Working Groups. It is noted that many of the activities of the Working Group will be subject to the availability of extrabudgetary resources. The Working Group will work under the guidance of the Technical Advisory Group, consult and cooperate with other Working Groups and the UNRMS Sub-group, as may be needed, and report to the Bureau of the Expert Group between annual sessions of the Expert Group.

Work to be undertaken:

- (i) Support the development of the vision and mission statements of the Expert Group;
- (ii) Develop and implement a strategy to attract experts to voluntarily work in the various Working Groups of the Expert Group;
- (iii) Develop, maintain and update standard presentations on UNFC and UNRMS;
- (iv) Conduct webinars on UNFC and UNRMS, helping to promote updates on the specifications and guidance;
- (v) Contribute to workshops, seminars and other outreach events on UNFC and UNRMS, e.g. development of programmes and agendas. Participate in events subject to the availability of extrabudgetary resources;
- (vi) Identify events at which papers on UNFC and UNRMS could be presented. Contribute to writing the papers and presentations and promote Expert Group involvement;
- (vii) Support the development of news stories and other material for ECE's web pages on sustainable resource management and social media;

- (viii) Develop promotional materials, such as brochures and leaflets;
- (ix) Offer support to the Resource Management Young Member Group (RMYMG) and help to engage youth in the work of the Expert Group and ensure the views and needs of youth are reflected in outputs of the Working Group;
- (x) Offer support to the Women in Resource Management Working Group;
- (xi) Offer support to activities related to surveys and other initiatives requiring stakeholder engagement as required.

Deliverables:

- (i) Annual report on communication, promotion and outreach activities;
- (ii) Updated standard presentations on UNFC and UNRMS;
- (iii) Regular webinars and promotion on the ECE website;
- (iv) Identify events to promote UNFC and UNRMS and prepare or contribute to papers and presentations;
- (v) New stories and other material for the ECE website and promotional material such as brochures and leaflets;
- (vi) Support provided to the Resource Management Young Member Group;
- (vii) Support provided to the Women in Resource Management Working Group.

Timeline:

- (i) Annual reports of the Communications Working Group presented to the Expert Group: April 2024 and April 2025;
 - (ii) Updated standard presentations and other promotional on UNFC and UNRMS posted to the ECE website: April 2024 and ongoing;
 - (iii) Webinars organized: April 2024 to ongoing;
 - (iv) Contributions to conferences, workshops and seminars: April 2024 to ongoing;
 - (v) News stories and promotional materials on UNFC and UNRMS: April 2024 and ongoing;
 - (vi) Resource Management Young Member Group supported with educational and promotional material on UNFC and UNRMS: April 2024 and ongoing;
 - (vii) Women in Resource Management Working Group supported with webinars, educational material and other promotional tools as needed: April 2024 and ongoing.
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