



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

Geneva, 25-28 April 2023

Report of the Expert Group on Resource Management**I. Introduction**

1. The fourteenth session of the Expert Group on Resource Management was held on 25-28 April 2023.
2. This report summarizes the discussions of the Expert Group on Resource Management at its fourteenth session. All the documents and presentations of the session are available on the United Nations Economic Commission for Europe (ECE) website.¹

II. Attendance

3. The session was attended by more than 470 experts, including from the following United Nations Economic Commission for Europe (ECE) member States: Albania, Armenia, Austria, Azerbaijan, Belgium, Bulgaria, Canada, Croatia, Czechia, Cyprus, Denmark, Estonia, Finland, France, Germany, Georgia, Hungary, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Serbia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Türkiye, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, and Uzbekistan.
4. The session was attended by representatives of the European Union.
5. Experts from Algeria, Argentina, Australia, Botswana, Brazil, Cambodia, Cameroon, Chile, Cote d'Ivoire, Costa Rica, the Democratic Republic of the Congo, Egypt, El Salvador, Ethiopia, Ghana, India, Indonesia, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Madagascar, Mexico, Mongolia, Mozambique, Namibia, Niger, Nigeria, Peru, Philippines, Republic of Korea, Saudi Arabia, Senegal, South Africa, Sri Lanka, Thailand, Timor-Leste, Tunisia, Uganda, Uruguay and Zambia participated under Article 11 of the Commission's Terms of Reference.
6. Representatives of the Regional Economic Commissions (the United Nations Economic Commission for Africa (ECA), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), the United Nations Economic and Social Commission for West Asia (ESCWA)), the United Nations Conference on Trade and

¹ <https://unece.org/info/Sustainable-Energy/UNFC-and-Resource-Management/events/374260>

Development, the United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP) were in attendance. A representative from the United Nations University Institute for Water, Environment and Health (UNU-INWEH) also attended. Representatives from the European Commission (EC), represented by the EC Directorate-General (D.G.) for Internal Market, Industry, Entrepreneurship and SMEs (D.G. GROW), participated. Representatives from the African Minerals Development Centre (AMDC) and the African Development Bank (AfDB) also participated.

7. The meeting was additionally attended by representatives of international organizations, intergovernmental organizations, the financial sector, non-governmental organizations, civil society, professional societies and associations, academia and the private sector, as well as by independent experts.

III. Adoption of the agenda (agenda item 1)

Documentation: Annotated provisional agenda for the fourteenth session (ECE/ENERGY/GE.3/2023/1)

8. The Expert Group on Resource Management fourteenth session was held in a hybrid mode with the possibility for online and physical participation.

9. The annotated provisional agenda for the fourteenth session (ECE/ENERGY/GE.3/2023/1) was adopted.

10. The Chair highlighted that a number of the Vice-Chairs of the Expert Group would Chair various sessions throughout the fourteenth session.

IV. Opening remarks: Assuring sustainability in resource management (agenda item 2)

11. Opening remarks were delivered by the Deputy Executive Secretary of ECE. The Deputy Executive Secretary highlighted three crucial aspects for the future of resource management: resources as a public good, long-term planning, and the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) as global systems.

12. Mr. Stig-Morten Knutsen, Vice-Chair of the Expert Group on Resource Management delivered opening remarks on behalf of Mr. David MacDonald, Chair of the Expert Group. Mr. Knutsen underlined the importance and urgency of sustainable natural resource management. He noted that according to the International Resource Panel, global resource extraction increased by more than 250% between 1970 and 2017, reaching 92 billion tonnes. This has resulted in significant environmental impacts, such as greenhouse gas (GHG) emissions, biodiversity loss, land degradation, and water stress. Moreover, only 7.2% of the used resources were recycled in 2023, according to the Circularity Gap Report 2023. This means that most ended up as waste. Mr. Knutsen stressed that this is unsustainable and inefficient, posing a severe threat to the planet and future generations.

13. Ms. Stientje van Veldhoven, Vice President and Regional Director, Europe, World Resources Institute (WRI) delivered a keynote presentation highlighting the urgency of building circularity into resource management and the benefits this brings, as well as opportunities for cooperation between WRI and the Expert Group on Resource Management. Ms. van Veldhoven also drew attention to the Platform for Accelerating the Circular Economy (PACE) which accelerates the transition to a circular economy by harnessing the power of global leadership.

14. The Expert Group noted the growing importance of UNFC and UNRMS in addressing the current challenges in the sustainable development of energy and mineral resources in alignment with the 2030 Agenda for Sustainable Development. The Expert Group decided to strengthen the continuous development of: (i) UNFC, (ii) UNRMS and (iii) accelerate the implementation of UNFC and UNRMS in the ECE region and beyond.

15. The Expert Group noted with appreciation the work of the Bureau and the secretariat and their efforts to manage and direct the Expert Group's work plan between annual sessions despite human and financial resource constraints and the challenging situation caused by the multiple ongoing global crises.

V. Seminar: Deploying the United Nations Framework Classification for Resources in Europe and beyond to assure information for sustainable resource management (agenda item 3)

16. The Seminar on Deploying UNFC in Europe and Beyond to Assure Information for Sustainable Resource Management was organized jointly by ECE, E.C. DG GROW, Geological Service for Europe (GSEU) and the Future Availability of Secondary Raw Materials (FutuRaM) Project Consortium.

17. The one and a half-day Seminar focussed on deploying UNFC in Europe and other regions to ensure sustainable resource management. The speakers discussed the benefits of using UNFC as an information source for the sustainable management of resources, with a focus on primary and secondary raw materials, including assisting in decision-making for different stakeholders (governments, industry, investors, and international organizations). The speakers also discussed the challenges of implementing UNFC in different regions, countries, economic sectors (industry, finance) and how these can be overcome. The seminar provided an opportunity to learn about best practices for implementing UNFC, as well as share experiences and exchange information. The discussions also drew attention to the inclusion of UNFC in the proposed European Critical Raw Materials Act in the context of strategic projects, exploration, monitoring and extractive waste.

18. The Expert Group noted the increasing deployment of UNFC in Europe and other regions to support sustainable resource management. The Expert Group agreed to explore opportunities for further regional and global implementation of UNFC and UNRMS. The Expert Group further noted with appreciation ongoing Horizon Europe projects, such as GSEU and FutuRaM, which focus on implementation of UNFC.

19. The Expert Group noted best practices for implementing UNFC and UNRMS across different regions and sectors, including the African Minerals and Energy Classification and Management System (AMREC) based on UNFC and UNRMS, and agreed to continue to provide technical support for the implementation and development of case studies in different regions.

VI. Activities and priorities of the Committee on Sustainable Energy and matters for consideration by the Expert Group on Resource Management (agenda item 4)

20. The Director of the Sustainable Energy Division provided an update on the activities and priorities of the Committee on Sustainable Energy and matters for consideration by the Expert Group on Resource Management. The Director introduced the ECE Platform on Resilient Energy Systems, highlighting that sustainable resource management and access to critical raw materials are priority areas for the work under the Platform in 2023.

21. The Director also drew attention to a number of side events or sessions that ECE is organizing or co-organizing with a focus on critical raw materials and sustainable resource management, including UNFC and UNRMS, namely during: Seventh ECE International Public-Private Partnerships Forum (Athens, Greece, 3-5 May 2023); UN Sustainable Finance and Transition Day at the DZ Bank Capital Markets Conference 2023 (Frankfurt, Germany, 12 May 2023); Second Edition of the ECE Regional Forum on Climate Initiatives to Finance Climate Action and the Sustainable Development Goals (Frankfurt, Germany, 4 July 2023); United Nations High-Level Political Forum on Sustainable Development (New York, USA, 10-19 July 2023); and 2023 UN Climate Change Conference, including the 28th meeting of

the Conference of the Parties (COP 28) (Dubai, United Arab Emirates, 30 November – 12 December 2023).

22. The Expert Group noted the decision of the Committee on Sustainable Energy to create an ECE Platform on Resilient Energy Systems and agreed to support its implementation with a specific focus on critical raw materials and classification and management of hydrogen resources.

23. The Expert Group noted the proposed draft decision of the Commission to the United Nations Economic and Social Council (ECOSOC), inviting the application of the UNRMS Principles and Requirements worldwide and requested to be updated on any progress.

24. The Expert Group noted the importance of critical raw materials for clean energy technologies and the need to overcome the challenges in their development in Central Asia. The Group recommended focused support for the implementation of UNFC and UNRMS, which could help improve the governance, regulation, diversification and value addition of these resources and foster sub-regional cooperation and integration to enhance the capacity and competitiveness of Central Asia in this sector.

25. The Expert Group is a vital platform for advancing UNFC and UNRMS, which are essential tools for achieving sustainable and integrated development of resources. The Expert Group facilitates the exchange of knowledge and best practices on how to apply these frameworks to various resource sectors, such as minerals, energy and water. The Expert Group noted that the current activities require higher levels of regular and extrabudgetary funding and support from its stakeholders to continue its work and to expand its scope and impact.

26. The Expert Group emphasized that just transition, which aims to ensure social and economic well-being for workers and communities affected by the shift to a low-carbon economy, is essential for sustainable resource management. The Expert Group recommended that just transition should be a key consideration in the further development and implementation of UNFC and UNRMS. The Expert Group should cooperate with the Group of Experts on Coal Mine Methane and Just Transition and consider organizing a joint discussion at the fifteenth session of the Expert Group in April 2024.

VII. Activities of the Working Group on Transforming the Extractive Industries for Sustainable Development – Towards a new model for global collaboration on critical raw materials (agenda item 5)

27. A session was organized with panellists representing the Co-Chairs of the UN Working Group on Transforming the Extractive Industries for Sustainable Development namely UNDP, UNEP and the Regional Economic Commissions, ECA, ECE, ECLAC, ESCAP, and ESCWA. The session focussed on the importance of critical raw materials (CRMs) for sustainable development and the transition to a green or circular economy. The extractive industries have great potential to drive growth, reduce poverty, while also posing financial, economic, governance, social, and environmental concerns. The session also discussed how the Working Group on Transforming the Extractive Industries for Sustainable Development can coordinate extractives-related work, serve as an information and knowledge hub, provide policy advice and technical assistance to stakeholders in the sector, and integrate extractive industries' work into other UN-wide initiatives such as Financing for Development (FfDI) in the Era of COVID-19 and Beyond. The session also showcased collaborative efforts to transform the extractive industries and ensure they contribute to the green transition.

28. Noting the recommendations presented in the UN Secretary-General's 2021 policy brief on "Transforming Extractive Industries for Sustainable Development" and the work plan of the Working Group on Transforming the Extractive Industries for Sustainable Development, the Expert Group decided to take the lead in delivering on: (i) Partnerships with other organizations and stakeholders and (ii) developing a toolkit for the sustainable management of critical raw materials. The Expert Group further noted that it will support

other activities of the Working Group, including support for Least Developed Countries (LDCs) and Land Locked Developing Countries (LLDCs) on critical raw materials management and other activities such as scaling up and replication of good practices and policy advice and technical assistance to stakeholders.

VIII. The United Nations Resource Management System: Sustainable Resource Management Transformation Pathway to 2030 (agenda item 6)

29. A session on UNRMS highlighted the importance of this voluntary global standard for sustainable integrated resource management. UNRMS aims to support stakeholders in a range of goals, including aiding the incorporation of a circular economy wherever possible, supporting the development of policies and regulations in the sustainable management and advancement of the Sustainable Development Goals (SDGs), and providing a comprehensive information framework and methodology to support resource progression at different levels. The session also discussed how UNRMS could help address sustainability and technology challenges to promote the optimal and responsible use of natural resources.

30. The Expert Group noted with appreciation the work of the UNRMS Sub-group and the publication of UNRMS: Principles and Requirements (ECE/ENERGY/144 and ECE Energy Series 74) and the proposed draft decision to the United Nations Economic and Social Council (ECOSOC), inviting the application of UNRMS Principles and Requirements worldwide. The Expert Group agreed to promote its deployment and implementation by Member States, industry, and other stakeholders.

31. Noting the roadmap for UNRMS development and implementation, the Expert Group requested the UNRMS Sub-group to develop complementary documentation for operational aspects of UNRMS, such as: (i) a clean energy index, (ii) service orientation, including for CRMs and anthropogenic resources, (iii) resource supply system, (iv) a blockchain and machine learning/artificial intelligence model for resource management and (iv) a CRMs dashboard.

32. Recognizing the importance of case studies in demonstrating the effectiveness of UNRMS in sustainable resource management, the Expert Group requested the UNRMS Sub-group to support the development of case studies.

IX. Development and Implementation Road Map for the United Nations Framework Classification for Resources: The next five years (agenda item 7)

Documentation:

Bridging Document between the Petroleum Resources Management System and the United Nations Framework Classification for Resources – 2023 Update (ECE/ENERGY/GE.3/2023/4)

Bridging Document between the Oil and Fuel Gas Reserves and Resources Classification of the Russian Federation of 2013 and the United Nations Framework Classification for Resources (ECE/ENERGY/GE.3/2023/5)

Concept Note and Proposed Actions: Application of the United Nations Framework Classification for Resources and the United Nations Resource Management System to Hydrogen Projects (ECE/ENERGY/GE.3/2023/6)

United Nations Framework Classification for Resources Case Study: Titanium deposit, the Piampaludo exploration project in Italy (ECE/ENERGY/GE.3/2023/7)

33. The session discussed the activities of the Technical Advisory Group and the various sectoral Working Groups of the Expert Group, which have been actively involved in developing and applying UNFC to different types of resources. The Technical Advisory Group also coordinates the activities of the Working Groups on Social and Environmental

Considerations, on Commercial Applications, and on Women in Resource Management. One of the key activities of the Working Groups was the development and update of UNFC sectoral specifications and Bridging Documents, the latter explain the relationship between UNFC and other classification systems. Several case studies were discussed to illustrate the application of UNFC to various resource projects. The session discussed “UNFC and UNRMS Road Map: A Framework for Updating Documents,” which sets out 5 to 7-year timelines for updates to ensure that documents are regularly reviewed and revised to keep pace with changing circumstances and evolving best practices. The session also discussed the importance of applying UNFC and UNRMS to hydrogen resources. Hydrogen is a potential source of clean energy that can reduce GHG emissions and enhance energy security.

34. The Expert Group noted with appreciation the work of the Technical Advisory Group to coordinate and support the activities of the sectoral Working Groups of the Expert Group. The Expert Group approved the roadmap for UNFC and UNRMS-related activities for the next five years in the application of UNFC and UNRMS for the sustainable management of various resources, including mineral, petroleum, renewable energy, nuclear fuel, anthropogenic, groundwater, injection projects, and hydrogen. The Expert Group requested that all the specifications be updated to UNFC (2019) by the Working Groups, reviewed by the Technical Advisory Group and, in the event of substantive changes, approved by the Bureau for submission to the Expert Group. The Expert Group requested the Technical Advisory Group to continue reviewing documents developed by the Working Groups and submit recommendations to the Bureau between annual sessions.

35. The Expert Group recognized that there is a need for further clarification on how the G axis of UNFC is used for different resources and in different applications, and potentially a need for further guidance or standards so as to ensure consistent use of UNFC and clear communication. The Expert Group agreed to form a G-axis Task Force and requested the Bureau to elaborate on the organizational issues. The proposed tasks of the Task Force are:

(a) Summarise differences in how the G-axis is interpreted and applied for different resources i.e. whether there are different meanings attached to the G-axis Categories when classifying different resources and what these different meanings are;

(b) Clarify the consequences of these differences in interpretation i.e., do differences in use of the G axis matter and if so, how?;

(c) Identify options for the Expert Group e.g.: (i) recognize, clarify and accept differences, or (ii) provide additional guidance on the use of the G axis, or (iii) modify generic and/or supplementary specifications to harmonize them. There is no intent with this initiative to change UNFC.

36. The G-axis Task Force should develop a Terms of Reference in consultation with the Technical Advisory Group and the Working Groups, and on approval will complete the three tasks outlined and report back to the Bureau by the end of 2023.

(a) Minerals

37. The Expert Group noted with appreciation the contribution of the Minerals Working Group to the development and deployment of UNFC in Europe, including development of the Guidance for the Application of UNFC for Mineral and Anthropogenic Resources in Europe (UNFC Guidance Europe).² The efforts to improve this document will help to ensure the quality of information needed for sustainable resource management. The work to develop guidance and presentations thereon, best practices and case studies on the application of UNFC and UNRMS, as well as the support given to other UN-wide initiatives, was also noted with appreciation.

² <https://unece.org/sed/documents/2022/10/working-documents/guidance-application-united-nations-framework>

(b) Petroleum

38. The Expert Group noted with appreciation the work of the Petroleum Working Group. The Expert Group approved the revised Bridging Document between the Petroleum Resources Management System and UNFC (ECE/ENERGY/GE.3/2023/4) and requested the secretariat to post it on the website. The Expert Group approved the revised Bridging Document between the Oil and Fuel Gas Reserves and Resources Classification of the Russian Federation and UNFC (ECE/ENERGY/GE.3/2023/5) and requested the secretariat to post it on the website. The Expert Group requested the Working Group to support the development of case studies and best practices on applying UNFC and UNRMS to petroleum resources.

(c) Renewable energy resources

39. The Expert Group appreciated the work of the Renewable Energy Working Group and requested the development of case studies on the application of UNFC and UNRMS in cooperation with the ECE Group of Experts on Renewable Energy.

(d) Nuclear fuel resources

40. The Expert Group noted with appreciation the work of the Nuclear Fuel Resources Working Group and requested exploring ways to promote the application of UNFC and UNRMS to nuclear fuel resources, including potential collaboration with relevant stakeholders and organizations and sharing best practices and case studies. The Expert Group recommended continuing the collaboration with the ECE Group of Experts on Cleaner Electricity Systems to enhance the work on the interplay of technologies and energy resiliency activities. The Expert Group further recommended conducting further research and analysis on the challenges and opportunities of sustainable management of nuclear fuel resources and how UNFC and UNRMS can help address these challenges.

(e) Injection projects

41. The Expert Group noted with appreciation the work of the Injection Projects Working Group and requested the finalization of the updated Specifications for the Application of UNFC to Injection Projects for Geological Storage. The Expert Group recommended developing case studies and exploring new ways to apply UNFC and UNRMS to injection projects, including but not limited to carbon capture, utilization and storage, enhanced oil recovery, and waste disposal. The Expert Group requested the Injection Projects Working Group to collaborate with other relevant Working Groups and organizations to share knowledge and best practices for applying UNFC and UNRMS to injection projects.

(f) Anthropogenic resources

42. The Expert Group noted with appreciation the work of the Anthropogenic Resources Working Group and noted the importance of applying UNFC and UNRMS to anthropogenic resources to support the progress towards a more circular economy. The Expert Group recommended developing best practices and case studies using UNFC and UNRMS for anthropogenic resources.

(g) Groundwater resources

43. The Expert Group noted with appreciation the work of the Groundwater Resources Working Group and recommended the finalization of the Supplementary Specifications for the Application of UNFC to Groundwater Resources. The Expert Group encouraged the Working Group to continue developing case studies for applying UNFC and UNRMS to groundwater resources. The Expert Group proposed: (i) exploring opportunities for

collaboration with relevant organizations, including to strengthen links with the hydrogeological community on the benefit of developing and using UNFC and UNRMS for groundwater resources via a dedicated Network under the International Association of Hydrogeologists (IAH), including the International Groundwater Resources Assessment Centre (IGRAC) and (ii) to enhance the application of UNFC and UNRMS to groundwater resources and to provide technical support to countries in implementing UNFC and UNRMS in managing their groundwater resources.

(h) Social and environmental considerations

44. Ms. Sheila Khama, an independent advisor on mineral, oil, and gas policies and an author and podcast host, discussed the importance of community engagement in improving the social and environmental performance of extractive projects. She emphasized that communities are vested in the well-being of the surrounding environment of extractive projects, making community engagement crucial for understanding the potential impact of the projects. This understanding can help mitigate environmental risks and result in a positive impact stabilising the investments. Responsible procurement is essential, with prior informed consent required to obtain the social licence to operate. Companies should engage with communities as equal partners, which is often a legal requirement. Mitigating social risks is crucial as it helps mitigate project finance risks. Conflicts over water, land, and other physical aspects of the environment are common, making them essential considerations. Cultural aspects are also vital, and damage to heritage sites should be avoided. Indigenous knowledge of the environment is valuable in enhancing livelihood options and making the relocation, if required, with minimal disruptions. In closing, Ms. Khama stressed that community engagement should begin at the project design stage, making it essential to its success.

45. Ms. Carmen Wells, Director of Lands and Regulatory Management, Fort Chipewyan Métis Nation Association, Canada, spoke on behalf of several Indigenous Communities, including the First Nations of Fort McKay, Fort McMurray, Athabasca Chipewyan, and Mikisew Cree, as well as the Métis Nations of Fort McMurray, Fort McKay, and Willow Lake. Ms. Wells drew attention to the seepages from the Kearl Oil Sands Project mine tailing ponds in Northern Alberta, which were detected in early 2022 and were not notified to the indigenous communities for over a year. It was noted that these leaks contain toxic chemicals that could significantly threaten the local wildlife and fish. The tailings ponds are a serious concern for the indigenous communities as they endanger their water, food, wildlife, and cultural heritage. The ponds are located near the Athabasca River, a vital source of drinking water and food for many indigenous communities. They feed into the Peace-Athabasca Delta, a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site that supports rich biodiversity and traditional land use. The indigenous communities fear that the tailings ponds could contaminate their water and land with harmful chemicals, negatively impacting the wildlife and fish they depend on.

46. The Expert Group noted with appreciation the work of the Social and Environmental Considerations Working Group and requested continued development of case studies that demonstrate the application of UNFC and UNRMS for environmental, social, and governance considerations. The Expert Group recommended that the Working Group consider the development of guidelines or best practices for integrating environmental, social, and governance considerations into the application of UNFC and UNRMS. The Expert Group recommended that the Working Group explore opportunities for collaboration with relevant stakeholders, such as civil society organizations and local communities, to further enhance the social and environmental considerations in resource management.

(i) Commercial aspects and financial reporting

47. A panel session organized by the Commercial Applications Working Group focussed on the importance of a harmonized and comprehensive approach to resource management, reporting and disclosure. The panellists noted the need for collaboration between governments, industry and capital allocators to achieve public-private partnerships in resource management. Governments need to protect their interests and industry will need to

adapt to meet changing requirements by reforming industrial processes. The benefits of close cooperation between ECE and the International Sustainability Standards Board (ISSB) were outlined. Governments, industry and capital allocators should develop integrative and dynamic capabilities through public-private partnerships based on the same standard to meet common goals and to manage the opportunities and risks related to the uncertainties that arise from climate change and regulatory reforms. Climate change disclosure rules and their objectives were discussed, including the U.S. Securities and Exchange Commission (SEC) Proposed Climate-related Disclosure Rules, the EU Corporate Sustainability Reporting Directive (CSRD), the United Kingdom Sustainability Disclosure Requirements, the Task Force on Climate-related Financial Disclosures (TCFD) and the draft ISSB standards published in March 2022. The lack of coordination between overlapping disclosure regimes was highlighted, as well as the internal and external resources and expertise needed to generate the required disclosures. The panellists recommended that the Expert Group on Resource Management follow up with the contacts made with ISSB with a view to including UNFC in the relevant industry-based requirements of ISSB's draft standards. The inclusion of UNFC in the proposed EU Critical Raw Materials Act was presented as a regional example. UNFC has been included in the proposed Act to ensure harmonised and comparable data for strategic projects, mineral occurrences containing critical raw materials, new raw material projects and closed extractive waste facilities.

48. The Expert Group noted with appreciation the work of the Commercial Applications Working Group, acknowledged the importance of value analyses, fiscal and contractual conditions, capital allocation, financial reporting, and encouraged the Working Group to continue its efforts. The Expert Group also noted the initiative of the Working Group to establish a UNFC Adoption (Standards) Group and requested the Bureau to further elaborate on its organizational issues. The Expert Group requested the Working Group to provide further information on the progress of financial regulators and other actors in applying UNFC and UNRMS in their financial reporting frameworks. The Expert Group recommended exploring ways to further enhance cooperation between financial regulators and the Expert Group in using UNFC and UNRMS in financial reporting.

(j) Hydrogen and other potential applications

49. The Expert Group noted with appreciation the work of the Hydrogen Task Force, which is subject to the availability of extrabudgetary funding, recommended developing, where appropriate, specifications for the application of UNFC and UNRMS to hydrogen projects and production technologies, as presented in document ECE/ENERGY/GE.3/2023/6. The Expert Group recommended enhanced cooperation with the Groups of Experts on Gas and on Cleaner Electricity Systems to test application of UNFC and UNRMS to hydrogen resources and, if applicable, develop UNFC- and UNRMS-based international hydrogen classification and management standards.

(k) Women in Resource Management

50. Ms. María Francisca Valenzuela, Chief, Gender and Human Rights Office of the Ministry of Energy of Chile, shared learnings from policymaking to support gender equality and inclusivity in the energy sector based on the experience of the Ministry of Energy of Chile with its "Energy and Women Programme". This voluntary Programme comprises ten axes, fourteen measures and forty specific actions to move forwards towards gender equality and sustainable inclusion of women in the development of energy industries and their ecosystems.

51. The Expert Group noted with appreciation the work of the Women in Resource Management Working Group and recommended actions to ensure gender equity and inclusivity in the development and implementation of UNFC and UNRMS. The Expert Group encouraged all stakeholders to prioritize gender mainstreaming and the empowerment of women in resource management.

(l) Youth

52. A panel session focused on the importance of intergenerational equity in resource management to ensure a just, green and digital transition. The Youth are critical stakeholders for effective sustainable resource management and meeting the needs of future generations in terms of economic growth, social development, and environmental protection. As a dynamic and innovative sub-group of the Expert Group on Resource Management, the Resource Management Young Member Group strives to harness the diverse perspectives and skills of the youth to drive the urgent green and digital transition in a just and equitable manner. The session discussed how the Resource Management Young Member Group can cooperate to channel its engagement in resource management, provide youth policy advocacy, support the work on capacity-building and competency, serve as an educational platform, and bring innovation into resource management discussions, with a focus on climate change effects, raw material security, and environmental, social, and governance. The session also showcased concrete actions that the Resource Management Young Member Group can and should take to reduce sustainability threats and enhance resilience with sustainable resource management, while giving a youth perspective on UNFC and UNRMS.

53. The Expert Group noted with appreciation the revised Terms of Reference of the Resource Management Young Member Group. The Expert Group further noted with appreciation the efforts of the Resource Management Young Member Group and encouraged the recruitment of more members to the Group. The Expert Group recommended strengthening the Resource Management Young Member Group's impact on resource management issues and encouraged including young members in every Working Group and Sub-group of the Expert Group on a rotational basis. In view of the importance of engaging youth in the work of the Expert Group and hearing their views, the Expert Group agreed that the Resource Management Young Member Group should become a Working Group of the Expert Group and present its perspectives to the Expert Group annual sessions.

X. Work plans for 2022-2023 and 2024-2025 and strengthening the Expert Group on Resource Management (agenda item 8)

Documentation: Draft Work Plan for the Expert Group on Resource Management for 2024-2025 (ECE/ENERGY/GE.3/2023/3)

54. Following an update by the Chair, the Expert Group noted that it had made good progress in implementing its work plan for 2022-2023 despite the challenging situation.

55. The Expert Group reviewed its work plan for 2024-2025 (ECE/ENERGY/GE.3/2023/3) and requested that the modifications agreed at the meeting be incorporated into a revised text for submission to the Committee on Sustainable Energy at its thirty-second session (Geneva, 13-15 September 2023).

56. The Expert Group noted that the delivery of a number of activities in the 2024-2025 work plan is dependent on the availability of extrabudgetary resources and deemed securing such resources critical for attainment of the Expert Group's objectives. The Expert Group requested the Bureau, in cooperation with the Secretariat, to identify potential sources of funding.

57. The Expert Group noted that in 2025 its sixteenth session would be shortened meeting with overlapping sessions with the Groups of Experts on Coal Mine Methane and Just Transition and on Gas.

XI. International Centres of Excellence on Sustainable Resource Management and extrabudgetary projects supporting implementation the United Nations Framework Classification for Resources and the United Nations Resource Management System (agenda item 9)

58. A session focussed on Central Asia which is rich in natural resources, such as minerals, petroleum, renewable energy sources, and water. However, these resources are often underutilized, poorly managed, or subject to geopolitical conflicts. To unlock the resource potential of the region and ensure its sustainable development, there is a need for a comprehensive and integrated resource management system that can address the social, environmental, and economic aspects of resource production and use. The discussions and presentations explored how UNFC and UNRMS can be applied to the resources of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan to support their resource progression and policy development. The session also showcased some successful examples of UNFC and UNRMS implementation in the region and discussed the challenges and opportunities for further adoption and dissemination.

59. A number of key questions were posed during the session: (i) How can UNFC and UNRMS help the Central Asian countries to assess and optimize their resource potential and align it with their national development goals and the 2030 Agenda for Sustainable Development?, (ii) What are the main challenges and opportunities for implementing UNFC and UNRMS in the Central Asian region, especially in terms of data availability, quality, and harmonization, stakeholder engagement, and capacity building? and (iii) What are the best practices and lessons learned from applying UNFC and UNRMS to different types of resources in the Central Asian region, such as minerals, petroleum, renewable energy sources, and water?

60. The Expert Group noted the importance of establishing International Centres of Excellence on Sustainable Resource Management (ICE-SRMs) for the global deployment of UNFC and UNRMS.

61. The Expert Group noted the work of recently established independent ICE-SRMs in Russia and in Mexico, which have been actively advocating for UNFC and UNRMS principles and requirements in their regions of reference. There are similar initiatives in the making in other regions around the world.

62. The Expert Group recommended that a Centre on Sustainable Resource Management (CSRMS) should coordinate the network of ICE-SRMs and assist efforts to seek extrabudgetary funding to support activities in this area.

63. The Expert Group noted the update on the European Commission-funded project to support ECE member States in developing and implementing UNFC and UNRMS and encouraged efforts to secure additional extrabudgetary funding.

XII. Communications, promotion, and outreach (agenda item 10)

64. The activities of the Communications Working Group were presented to the Expert Group.

65. The Expert Group discussed its current and proposed cooperation with Member States, industry, capital allocators and other organizations and entities, and emphasized the importance to achieve synergies and complementarity of efforts and to avoid overlap and duplication.

66. The Communications Working Group of the Expert Group on Resource Management has been diligently conducting its activities through remote means, relying on regular e-mail correspondence and quarterly teleconferences.

67. To further amplify the Working Group's efforts, a comprehensive Communications Plan for the ECE Sustainable Energy Division was developed. This plan specifically focuses

on effectively communicating the further development and implementation of UNFC and UNRMS with a dedicated budget and a communication specialist to provide support,

68. The Communications Working Group has been proactive in conducting education and outreach activities, aimed at promoting awareness and understanding of application of UNFC and UNRMS among the expert group and the wider public. During the period 2022-2023, the Working Group has been primarily focused on expanding its outreach through participation or supporting the participation of members of the Expert Group in conferences and workshops. The Working Group also supported the publication of press releases and fact sheets to foster active engagement with a wide range of organizations and stakeholders interested in the application of UNFC and UNRMS.

69. Additionally, the Working Group established collaboration with the recently established ICE-SRM in Mexico, which has been actively advocating for UNFC and UNRMS in the mining, oil and gas, and critical minerals sectors.

70. To effectively engage with these communities, including the scaled-up Resource Management Young Member Group (RMYMG), the Working Group is exploring various communication channels and platforms such as the ECE website and social media channels, a dedicated ECE Sustainable Energy LinkedIn page, as well as evaluating the requirements for tailored training materials to cater to the unique needs of this group.

71. The Expert Group reviewed and discussed its activities and upcoming events in 2023 and 2024 to promote and educate on UNFC and UNRMS and thanked the Working Group for its efforts to promote UNFC and UNRMS and other aspects of the Expert Group's work.

XIII. Election of officers (agenda item 11)

72. The Expert Group elected the following experts to the Bureau with effect from the close of the fourteenth session for two years until the close of the sixteenth session: as Chair Ms. Karen Hanghoj (United Kingdom) and as Vice-Chairs: Mr. Stig-Morten Knutsen (Norway), Mr. Andrzej Głuszyński (Poland), Ms. Teresa Ponce de Leão (Portugal), Ms. Erika Ingvald (Sweden), Ms. Múcella Ersoy (Türkiye), Ms. Sarah Forbes (United States of America), Mr. David MacDonald (United States of America), Mr. Andrew Cross (Australia), Mr. Hussein Allaboun (Jordan), Mr. Ulises Neri (Mexico), Mr. Milan Grohol (EC D.G. GROW), Ms. Marit Kitaw (African Union Commission (AUC)), Mr. Young Joo Lee (Coordinating Committee for Geoscience Programmes in East & Southeast Asia (CCOP)), Mr. Glen Burrige (European Federation of Geologists (EFG)), Ms. Julie Hollis (EuroGeoSurveys (EGS)), Mr. Henri Paillere (International Atomic Energy Agency (IAEA)), Ms. Gioia Falcone (International Geothermal Association (IGA)), Mr. Luis Lopez (Latin American Mining Organization (OLAMI)). Members elected to the Bureau at the thirteenth session in 2022 will continue until the end of the fifteenth session, namely Ms. Branka Knežević (Bosnia and Herzegovina) and Mr. Victor Babashev (Kazakhstan).

73. The Bureau comprises Ms. Karen Hanghoj (United Kingdom) as Chair and Ms. Branka Knežević (Bosnia and Herzegovina), Mr. Victor Babashev (Kazakhstan), Mr. Stig-Morten Knutsen (Norway), Mr. Andrzej Głuszyński (Poland), Ms. Teresa Ponce de Leão (Portugal), Ms. Erika Ingvald (Sweden), Ms. Múcella Ersoy (Türkiye), Ms. Sarah Forbes (United States of America), Mr. David MacDonald (United States of America) Mr. Andrew Cross (Australia), Mr. Hussein Allaboun (Jordan), Mr. Ulises Neri (Mexico), Mr. Milan Grohol (EC D.G. GROW), Ms. Marit Kitaw (AUC), Mr. Young Joo Lee (CCOP), Mr. Glen Burrige (EFG), Ms. Julie Hollis (EGS), Mr. Henri Paillere (IAEA), Ms. Gioia Falcone (IGA) and Mr. Luis Lopez (OLAMI) as Vice-Chairs. Mr. Satinder Purewal and Mr. Aleksandr Shpilman, Co-Chairs of the Technical Advisory Group, are ex-officio members of the Bureau.

74. The Chair of the Bureau is a Vice-Chair of the Bureau of the Committee on Sustainable Energy ex-officio.

75. The Co-Chairs of the Technical Advisory Group are ex-officio members of the Bureau.

76. The Expert Group extended its thanks to Mr. David MacDonald for his years as Chair of the Expert Group on Resource Management, noting that Mr. MacDonald was elected as Chair in May 2012. The Expert Group further noted with appreciation the commitment, time and expertise Mr. MacDonald dedicated to this role and the progress that was achieved in the development and implementation of UNFC and UNRMS during his tenure.

77. The Expert Group also extended its thanks and appreciation to the outgoing members of the Bureau: First Vice-Chair, Mr. Igor Shpurov (Russian Federation) and the following Vice-Chairs: Mr. Roger Dixon (CRIRSCO), Ms. Nurangiz Farajullayeva (Azerbaijan), Mr. Zoltán Horváth (EGS), Mr. Jianhua JU (the People's Republic of China), Mr. Rafal Misztal (Poland), and Mr. Bernard Seiller (Society of Petroleum Engineers).

XIV. Other business (agenda item 12)

78. Following discussion and careful review and considering the expanded scope of application of UNFC and the development of UNRMS, the Expert Group agreed that its fifteenth session needs to be held over five days, including an educational and training session on UNFC and UNRMS, but with an option to reduce the total number of days commensurate with the required agenda items. The fifteenth session is currently scheduled to be held in Geneva, Switzerland, 22-26 April 2024.

79. The Expert Group noted that energy and resource resiliency is a priority for the Committee on Sustainable Energy. This cross-cutting issue requires a holistic and integrated approach. Therefore, future sessions of the Expert Group will integrate more with the other Groups of Experts reporting to the Committee to share best practices, identify common challenges and opportunities, and leverage synergies for sustainable resource management. The objective is to start this approach effective the sixteenth session in 2025.

XV. Adoption of conclusions and recommendations (agenda item 13)

80. The Expert Group adopted the conclusions and recommendations.

XVI. Adoption of the report and close of the meeting (agenda item 14)

81. The meeting report was adopted subject to any necessary editing and formatting.
