



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

Geneva, 25 October 2022

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

1. The thirteenth session of the Expert Group on Resource Management was held on 25 October 2022.
2. This report summarizes the discussions of the Expert Group on Resource Management at its thirteenth session. All the documents and presentations of the session are available on the United Nations Economic Commission for Europe (ECE) website¹.

II. Attendance

3. The session was attended by more than 160 experts, including from the following United Nations Economic Commission for Europe (ECE) member States: Albania, Austria, Azerbaijan, Bulgaria, Cyprus, Finland, France, Germany, Hungary, India, Kazakhstan, Kyrgyzstan, Netherlands, Norway, Portugal, Russian Federation, Serbia, Slovenia, Sweden, Tajikistan, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, and Uzbekistan. Representatives of the European Union also participated.
4. Experts from Argentina, Brazil, the People's Republic of China, Costa Rica, Dominican Republic, El Salvador, Iran (Islamic Republic of), Mexico, Namibia, Nigeria, Saudi Arabia, South Africa, Thailand and Uganda, participated under Article 11 of the Commission's Terms of Reference.
5. A representative from the United Nations University Institute for Water, Environment and Health (UNU-INWEH) 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) also participated.
6. The meeting also was attended by representatives of non-governmental organizations, academia and the private sector, as well as by independent experts.

¹ <https://unece.org/info/Sustainable-Energy/UNFC-and-Resource-Management/events/363370>



III. Adoption of the agenda (agenda item 1)

7. The Expert Group on Resource Management noted that the continuing unprecedented circumstances caused by the COVID-19 pandemic had resulted in the thirteenth session being held in a hybrid mode with the possibility of online and physical participation. It was also noted that the session was originally due to be held on 25-29 April 2022, but due to the geopolitical challenges in the ECE region, the session was rescheduled as a one-day meeting on 25 October.

8. The revised annotated provisional agenda for the thirteenth session (ECE/ENERGY/GE.3/2022/1/Rev.1) was adopted. It was agreed that the opening remarks would be taken under this agenda item, and an update on the Activities and priorities of the Committee on Sustainable Energy and matters for consideration by the Expert Group on Resource Management would be taken under agenda item 7 “Other business”.

9. Opening remarks were delivered by the Director of the Sustainable Energy Division, Mr. Dario Liguti and the Chair of the Expert Group on Resource Management, Mr. David MacDonald.

10. A minute’s silence was held in memory of Ms. Jennifer McCoy, Vice-Chair of the Expert Group and Senior Manager, Energy, Ernst & Young LLP, who sadly passed away on 21 October 2022.

IV. Elections of officers (agenda item 2)

11. The Expert Group elected the following experts to the Bureau as Vice-Chairs with effect from the close of the thirteenth session for a period of two years until the close of the fifteenth session: Ms. Branka Knežević (Bosnia and Herzegovina), Mr. Viktor Babashev (Kazakhstan), and Mr. JU Jianhua (the People’s Republic of China). Other members elected to the Bureau at the twelfth session in 2021 will continue until the end of the fourteenth session.

12. The Expert Group was advised of changes to the Bureau since the twelfth session: the European Federation of Geologists (EFG) Vice-Chair Mr. Michael Neumann has stepped down and been replaced by Mr. Glen Burridge; the African Union Commission (AUC) Vice-Chair Mr. Frank Mugyeyni has stepped down and been replaced by Ms. Marit Kitaw; and Mr. Tunde Arisekola from Nigeria has stepped down as Vice-Chair. The Technical Advisory Group Chair participates in the Bureau on an ex-officio basis. It was noted that Mr. Alistair Jones has stepped down as Chair of the Technical Advisory Group and been replaced by the Co-chairs, Mr. Satinder Purewal and Mr. Alexander Shpilman. The outgoing Bureau members Messrs Neumann, Mugyeyni, Arisekola and Jones were thanked for their longstanding commitment and support of the work of the Expert Group and Bureau.

13. The Bureau comprises: Mr. David MacDonald (United States of America) as Chair, Mr. Igor Shpurov (Russian Federation) as First Vice Chair, and Ms. Nurangiz Farajullayeva (Azerbaijan), Ms. Branka Knežević (Bosnia and Herzegovina), Mr. Viktor Babashev (Kazakhstan), Mr. Stig-Morten Knutsen (Norway), Mr. Rafal Misztal (Poland), Ms. Teresa Ponce de Leão (Portugal), Ms. Erika Ingvald (Sweden), Ms. Mucella Ersoy (Turkey), Ms. Karen Hanghoj (United Kingdom of Great Britain and Northern Ireland), Ms. Sarah Forbes (United States of America), Mr. Andrew Cross (Australia), Mr. JU Jianhua (the People’s Republic of China), 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 and Southeast Asia (CCOP)), Mr. Roger Dixon (Committee for Minerals Reporting International Standards (CRIRSCO)), Mr. Glen Burridge (European Federation of Geologists (EFG)), Mr. Zoltán Horváth (EuroGeoSurveys (EGS)), Mr. Henri Paillere (IAEA), Ms. Gioia Falcone (International Geothermal Association (IGA)), Mr. Luis Lopez (Latin American Mining Organization (OLAMI)), Mr. Bernard Seiller (Society of Petroleum Engineers (SPE)) as Vice-Chairs. The Co-chairs of the Technical Advisory Group of the Expert Group on Resource Management (currently Mr. Satinder Purewal and Mr. Alexander Shpilman) participate in the Bureau on an ex-officio basis.

V. Expert Group on Resource Management Realignment (agenda item 3)

14. The Expert Group on Resource Management comprises a diverse spectrum of expertise, interests, regions and experience. It is a subsidiary body of the intergovernmental Committee on Sustainable Energy. The Expert Group is also a key stakeholder of the UN Working Group on Transforming the Extractive Industries for Sustainable Development. The Expert Group's key responsibilities include (i) the development of the United Nations Framework Classification for Resources (UNFC), (ii) the development of the United Nations Resource Management System (UNRMS), and (iii) supporting the implementation of UNFC and UNRMS.

15. The Bureau proposed that the Expert Group take a stock check to assess whether the current structure of the Expert Group needs a realignment whilst noting the currently limited resources of the ECE secretariat to support and coordinate activities and drive implementation of the Expert Group's approved work plan.

16. The Chair of the Expert Group and the Co-Chair of the Technical Advisory Group presented a proposal to realign the Expert Group. Mr. Stig-Morten Knudsen, Vice-Chair of the Expert Group and Norwegian Petroleum Directorate, presented on the need to develop UNFC and UNRMS fit for purpose. Ms. Karen Hanghoj, Vice-Chair of the Expert Group and Director, British Geological Survey, provided general observations on the purpose, value and need to realign the Expert Group.

17. The Expert Group noted the growing applications of the United Nations Framework Classification for Resources (UNFC) and the United Nations Resource Management System (UNRMS) and their deployment in the ECE region and beyond. The Expert Group has evolved into a rich source of expertise for sustainable resource management, which could be tapped for various initiatives, including the United Nations Working Group on Transforming the Extractive Industries for Sustainable Development. The Expert Group further noted the proposal of the Bureau and the Co-chairs of the Technical Advisory Group to realign the Group. The Expert Group recommended that its current structure needs to be realigned to reflect the priorities outlined in the annotated provisional agenda (resource and commercial management, standards development and deployment (UNFC and UNRMS) and systems (e.g., IT, blockchain, eXtensible Business Reporting Language (XBRL) etc.) meeting inter alia the needs of stakeholders, including the International Centres of Excellence on Sustainable Resource Management that are being established.

18. The Expert Group requested that a formal proposal to realign the Expert Group be prepared by the Bureau, in collaboration with the Technical Advisory Group, including all the Working Group Chairs, and the secretariat, for submission to the fourteenth session of the Expert Group.

19. The Expert Group noted the critical importance of sustainable resource management in responding to the emerging energy, raw material, food supply and climate crises and agreed that the ECE secretariat's capacity to support and coordinate activities needs to be enhanced.

20. The Expert Group noted with appreciation the decision of the Committee on Sustainable Energy to request additional resources to support activities under the Sustainable energy subprogramme, including on modernizing resource management systems.

VI. Delivering the Sustainable Development Goals: Development, maintenance and implementation of the United Nations Framework Classification for Resources and the United Nations Resource Management System (agenda item 4)

21. A panel session moderated by Ms. Karen Hanghoj, Vice-Chair of the Expert Group and Director, British Geological Survey, discussed UNRMS principles and requirements. The panellists were Ms. Teresa Ponce de Leão, Vice-Chair of the Expert Group and Chair of

the UNRMS Sub-group, Ms. Frances Wall, Exeter University, UK and member of the UNRMS Sub-Group, Mr. Simon Michaux, Geological Survey of Finland (GTK), Finland, and Mr. Julian Hilton, Chair of the Sustainable Development Goals (SDGs) Delivery Working Group.

22. Attainment of the 2030 Agenda for Sustainable Development and the Paris Agreement requires a holistic and integrated approach to sustainable resource management. The discussion addressed the role of the United Nations in setting international rules and standards to sustain and nurture natural capital as a critical public good. Implementing the 18-point call to action of the UN Policy Brief “Transforming Extractive Industries for Sustainable Development”² through the UN Working Group on Transforming the Extractive Industries for Sustainable Development was discussed. Implications for the work of the Expert Group were considered.

23. The Expert Group was briefed on the progress made since the twelfth session on the development, maintenance and application of UNFC for the sustainable management of resources, including any recommendations from the Bureau of the Expert Group. The Expert Group is tasked to develop and maintain UNFC through rigorous testing, review, and periodic updating. Current applications and expansion of UNFC for the sustainable management of renewable energy, mineral, petroleum, nuclear fuel and anthropogenic resources, groundwater and injection projects were discussed and reviewed.

24. Coming reforms to mitigate climate change and meet the SDGs require that resource management be based on relevant project-based metrics beyond source and products. The Expert Group was invited to decide whether and how to include such metrics in UNFC and UNRMS.

25. ECE and the Expert Group have promoted the view that commercial assessments at the jurisdictional level are required in addition to assessments done at the enterprise level to meet the needs of jurisdictions and the capital market to assess opportunities and risks to investments associated with the reforms. The Expert Group was briefed by Mr. Sigurd Heiberg, Chair of the Commercial Applications Working Group, on the status of interactions between the UN and the capital market and the role that an expanded UNFC and UNRMS may play in this context.

26. The United Nations Resource Management System (UNRMS) is being developed as a comprehensive tool kit to ensure natural resources are managed in a sustainable and integrated manner. The UNRMS Subgroup presented the document “United Nations Resource Management System: Principles and Requirements” (ECE/ENERGY/GE.3/2022/6). The Expert Group, noting the importance of UNRMS in supporting sustainable resource management, requested the UNRMS Sub-group finalize the document based on the ongoing public consultations. Should there be no substantive changes proposed, the Expert Group recommended it be published as an official ECE publication.

27. The Expert Group discussed the “Concept Note: United Nations Framework Classification for Resources and United Nations Resource Management System – Systems approach to enabling the resource as a service paradigm through blockchain technologies” prepared by the Sustainable Development Goals Delivery Working Group (ECE/ENERGY/GE.3/2022/5) and requested the Working Group to further develop the tools and present the revised document and any tools developed to the fourteenth session of the Expert Group.

28. The Expert Group noted with appreciation the accelerated implementation of UNFC, in particular in countries of the European Union with a focus on application of UNFC to mineral and anthropogenic resources. The Expert Group further noted with appreciation the extrabudgetary project funded by the European Commission “Supporting UNECE member States in the development and implementation of UNFC and UNRMS” (2020-2024), implementation of which is in its third year, which has facilitated the accelerated implementation of UNFC. Noting the scale of the task to deploy UNFC in the ECE region and beyond, further develop UNRMS and build the required capacity for application of both,

² https://www.un.org/sites/un2.un.org/files/sg_policy_brief_extractives.pdf

in particular of UNFC at national level and at EU level, requested the secretariat to continue its efforts to secure additional extrabudgetary resources.

29. The Expert Group noted with appreciation the work of the Technical Advisory Group to coordinate and support the activities of all the sectoral Working Groups of the Expert Group. The Expert Group requested the Technical Advisory Group to consolidate the UNFC specifications into a coherent and short set of documents and submit them to the fourteenth session of the Expert Group for approval, subject to the availability of human resources to prepare the documents. The Expert Group further requested the Technical Advisory Group to continue to review documents developed by the Working Groups and submit recommendations thereon to the Bureau between annual sessions. The Expert Group additionally requested the Technical Advisory Group to develop a roadmap for UNFC-related activities, including the development of systems to complement the standards and guidance notes, covering the next five years for review by the Bureau and subsequent submission to the fourteenth session of the Expert Group.

30. Mr. Sigurd Heiberg Chair of the Commercial Applications Working Group delivered a presentation on the Glossary of Common Terms for UNFC (ECE/ENERGY/GE.3/2022/3).

31. The Expert Group noted with appreciation the development of a Glossary of Common Terms for UNFC (ECE/ENERGY/GE.3/2022/3). The Expert Group:

(a) Approved the Common Glossary for use in UNFC and its subsidiary documents, including specifications guidance and studies;

(b) Requested the secretariat to tag the defined terms with hyperlinks to the definitions. This includes the definitions of categories, the terms defined in the Common Glossary, and the terms defined in any subsidiary document;

(c) Requested the Technical Advisory Group to research the merit of developing an XBRL facility for use with UNFC and UNRMS, including in jurisdictional, entity, partnership, and financial reporting and report the outcomes to the fourteenth session of the Expert Group.

32. Mr. JU Jianhua, Vice-Chair of the Expert Group and Director General, Department of Mineral Resources Protection and Supervision, Ministry of Natural Resources, the People's Republic of China, delivered an update on the Chinese UNFC Bridging Documents and prospects for their application.

33. The Expert Group noted with appreciation the updated Bridging Document between the National Standard of the People's Republic of China Classification for Mineral Resources and Mineral Reserves (GB/T 17766-2020) and UNFC (ECE/ENERGY/GE.3/2022/16) and the updated Bridging Document between the National Standard of the People's Republic of China Classification for Petroleum Resources/Reserves (GB/T 19492-2020) and UNFC (ECE/ENERGY/GE.3/2022/17) and requested that they be posted on the UNFC website.

34. Mr. Vitor Correia, Chair of the Competency Working Group delivered a presentation on the "Guidance Note on Competency Requirements for the Estimation, Classification and Management of Resources" (ECE/ENERGY/GE.3/2022/4) and the revisions proposed since publication of the document.

35. The Expert Group noted with appreciation the work of the Competency Working Group and reviewed the document "Guidance Note on Competency Requirements for the Estimation, Classification and Management of Resources" (ECE/ENERGY/GE.3/2022/4) and the revisions proposed since the document was published. The Expert Group agreed to the revised text and recommended it be posted on the website. The Expert Group noted that additional guidance may be needed to accommodate resource sector-specific requirements and regional and/or national requirements, as well as broader quality assurance and quality control standards applicable to the large engineering projects that are a part of resource management (see document "The United Nations Framework Classification for Resources applied to Commercial Assessments – Introductory Guidance" (ECE/ENERGY/GE.3/2021/8)). Resource sector-specific requirements could be addressed by developing separate guidance notes or annexes to the Guidance Note. The Expert Group noted that the

International Centres of Excellence on Sustainable Resource Management would be well placed to develop additional guidance that meets regional and/or national requirements.

36. Mr. Claudio Virues, Chair of the Social and Environmental Considerations Working Group delivered a presentation on the Draft UNFC Guidance for application to Coal Bed Methane (ECE/ENERGY/GE.3/2022/8).

37. The Expert Group reviewed the Draft UNFC Guidance for application to Coal Bed Methane (ECE/ENERGY/GE.3/2022/8) and requested the Petroleum Working Group to consider all comments received from the Expert Group, as well as the Group of Experts on Coal Mine Methane and Just Transition. Should there be no substantive changes proposed, the document can be posted to the UNFC website. In the event of substantive changes proposed, the Bureau should prepare a revised text for submission to the Expert Group for agreement.

38. Ms. Gioia Falcone, Vice-Chair of the Expert Group, Chair of the Geothermal Sub-group and Rankine Chair – Professor of Energy Engineering, Systems, Power and Energy Division, School of Engineering, University of Glasgow, presented on the Updated Specifications for the Application of UNFC to Geothermal Energy (ECE/ENERGY/GE.3/2022/18).

39. The Expert Group noted with appreciation the Updated Specifications for the Application of UNFC to Geothermal Energy (ECE/ENERGY/GE.3/2022/18) developed by the UNFC Ad Hoc Committee of the International Geothermal Association (IGA) and approved it to be posted online. The Expert Group noted the importance of further testing the classification of renewable energy projects using UNFC and agreed to facilitate case studies or pilot projects by countries in cooperation with the Group of Experts on Renewable Energy for presentation at its fourteenth session.

40. Mr. Claudio Virues, Chair of the Social and Environmental Considerations Working Group, delivered a presentation on the activities of the Working Group and the “Draft Governance Guidelines related to Environmental and Social Factors in Resource Classification and Management” (ECE/ENERGY/GE.3/2022/7).

41. The Expert Group noted with appreciation the work of the Social and Environmental Considerations Working Group. The Expert Group reviewed the “Draft Governance Guidelines related to Environmental and Social Factors in Resource Classification and Management” (ECE/ENERGY/GE.3/2022/7) and recommended that the Guidance be posted to the ECE website and encouraged its use.

42. Mr. Sigurd Heiberg, Chair of the Commercial Applications Working Group, delivered a presentation on the activities of the Working Group and the “The United Nations Framework Classification for Resources applied to Commercial Assessments – Guidance” (ECE/ENERGY/GE.3/2022/10).

43. The Expert Group noted with appreciation the work of the Commercial Applications Working Group and the information provided in the document “The United Nations Framework Classification for Resources applied to Commercial Assessments – Guidance” (ECE/ENERGY/GE.3/2022/10). The Expert Group requested that the Guidance be posted to the ECE website. The Expert Group expressed support for the efforts of the Commercial Applications Working Group, the Bureau and ECE to strengthen the relationship with the International Financial Reporting Standards (IFRS) Foundation International Sustainability Standards Board (ISSB) and other standard setters with the view to achieving common standards for resource management (e.g., UNFC and UNRMS) and sustainability financial standards. The Expert Group recognized that the use of common standards in this regard is a prerequisite, both for the achievements of the Expert Group and for serving the capital allocators in successfully financing the reforms.

44. The Expert Group noted that the work on commercial applications of UNFC has revealed a need to adjust the formal definition of UNFC to include metrics that projects carry beyond sources and products, e.g., emissions, costs, revenues, energy requirements, other input factors etc. The Expert Group agreed on the use of the metrics that decisions require, both in the form of scalars and as time series.

45. The Expert Group noted the request of the Committee on Sustainable Energy at its thirty-first session that the Expert Group:

(a) Investigate existing classifications and specifications for hydrogen and develop, where appropriate, specifications for the application of UNFC and UNRMS) to hydrogen projects and production technologies;

(b) Develop pilot hydrogen resource management projects and case studies applying UNRMS principles.

46. The Expert Group recommended that, subject to volunteers and extrabudgetary funds being identified, a working group be established to undertake this work. The Expert Group further noted that the Committee at its thirty-first session had requested the ECE Group of Experts on Gas to lead the work of the subprogramme related to hydrogen and to do so in close collaboration with the other groups of experts. The Expert Group also recommended the Bureau to explore opportunities for cooperation with the ECE Group of Experts on Energy Efficiency.

VII. Application of the United Nations Framework Classification for Resources and the United Nations Resource Management System in different geographical contexts (agenda item 5)

47. A panel session, moderated by Mr. Viktor Babashev, Vice-Chair of the Expert Group and President, Eurasian Engineering Association (EEA), discussed application of UNFC and UNRMS in different geographical contexts.

48. Mr. Milan Grohol, Vice-Chair of the Expert Group and Policy Officer, DG GROW, European Commission, presented the revised Draft Guidance for the Application of UNFC for Mineral and Anthropogenic Resources in Europe.

49. The Expert Group noted with appreciation the work carried out under the “UNFC for Europe” initiative, including the development of the Draft Guidance for the Application of UNFC for Mineral and Anthropogenic Resources in Europe (ECE/ENERGY/GE.3/2022/9) to harmonize classification and management of raw materials at EU-level under the European Commission's Raw Materials Initiative. The document is now known as UNFC Guidance Europe. The Expert Group noted the revised version of the UNFC Guidance Europe document based on comments received from the public consultation and requested that it be posted it on the website and its wider use promoted.

50. Mr. Tunde Arisekola, African Minerals Development Centre, presented an update on the implementation of the UNFC African Mineral and Energy Resource Classification and Management System (UNFC-AMREC) and the Pan-African Resource Reporting Code (PARC)).

51. The Expert Group noted with appreciation the developments related to the deployment of UNFC in Africa, in particular the adoption of the UNFC African Mineral and Energy Resource Classification and Management System (UNFC-AMREC) and the Pan-African Resource Reporting Code (PARC)) by the Specialized Technical Committee of the Ministers of Industry, Mining and Energy in 2021 and its endorsement by the Heads of State of Africa in 2022 as the continental system for Africa. The Expert Group noted the efforts by the African Union Commission's AMREC Working Group and the African Minerals Development Centre (AMDC) to implement UNFC-AMREC.

VIII. Work plans for 2020-2021 and 2022-2023 (agenda item 6)

52. The Expert Group noted with appreciation that its work plan for 2020-2021 (ECE/ENERGY/2019/11) has been implemented.

53. The Expert Group discussed progress to implement its work plan for 2022-2023 (ECE/ENERGY/GE.3/2021/3).

54. The Expert Group noted that it has made good progress in implementing its work plan for 2022-2023 despite the challenging situation caused by COVID-19.

55. The Group of Experts noted with appreciation the work of the Bureau and the secretariat to manage and direct the Group's activities between annual sessions despite human and financial resource constraints, the continuing COVID-19 pandemic situation and geopolitical challenges in the ECE region.

IX. Other business (agenda item 7)

56. The Secretary of the Committee on Sustainable Energy presented an update on the activities and priorities of the Committee on Sustainable Energy and matters for consideration by the Expert Group on Resource Management.

57. The Expert Group noted the conclusions and recommendations of the Committee at its thirty-first session, in particular related to the Expert Group and its activities and implications for its work plan (ECE/ENERGY/143, paragraphs 32-40).

58. The Expert Group noted the Committee's decision to prioritize and implement special activities that coordinate and promote efforts related to energy resilience across the region and provide an ECE Platform on Resilient Energy Systems for inclusive dialogue. Under this initiative, there will be an emphasis on energy-related climate financing and the critical raw materials needed to transition to net-zero economies.

59. The Expert Group also noted the request of the Committee to the subsidiary bodies to formulate proposals that support efforts to building more resilient energy systems in the ECE region (ECE/ENERGY/143, paragraph 18 refers). The Expert Group agreed that it would respond to this request as early as possible and, in particular, when developing its work plan for 2024-2025.

60. Following discussion and careful review and in the light of the expanded scope of the application of UNFC and the development of UNRMS, the Expert Group agreed that its fourteenth 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.

61. The fourteenth session of the Expert Group is scheduled to be held in Geneva, Switzerland, 24-28 April 2023.

X. Adoption of conclusions and recommendations (agenda item 8)

62. The Expert Group adopted the conclusions and recommendations.

XI. Adoption of the report and close of the meeting (agenda item 9)

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