Brief Introduction of UNEP Science Division

The work of Science Division covers foundational scientific functions of early warning, assessment and capacity development to cover its global mandate to bring global environment under review. In the current Mid-term Strategy, the Division focuses on Science-Policy Interface and Digital Transformation in support of the climate, nature and pollution-free actions. Additional to the work of the three branches explained below, Science Division also administers Secretariats of IPBES, IPCC (with WMO), STAP and UNSCEAR. The Division also works closely with regional teams in delivering services and products to member states, including through a partnership with UNCTs.

Scientific Assessments - Big Science Branch

- 1. Global Assessments (GEO-7): Implementation of UNEA resolution 5/3 Future of the Global Environment Outlook (GEO 7) and the Ad-hoc Global Assessments Dialogue (AGAD)
 - The new GEO-7 process is now in full in motion, advisory bodies are being formed (formal nominations are now <u>open until August 1st</u>). Invitations for first virtual and hybrid meetings in September and October are out. More information is provided below.
 - The AGAD continues to foster synergy among major global scientific assessments including i.e. the IPCC, IPBES, the GEO, CBD, UNCCD, Chemicals/BRS conventions etc. More information <u>here</u>.
- Thematic Assessments: including the annual Emissions Gap Report, Adaptation Gap Report, the Frontiers Series (next issue on Food System Transformation); and the World Adaptation Science Programme (WASP). Details on each of these initiatives are provided in <u>Annex A.</u>
 - The preparations for the EGR and AGR are ongoing and on track for delivery by the COP27 in Egypt. More detail on the content of this years' Gap Reports is provided below.
 - The WASP's membership and activity continues to consolidate and expand. A focus on the topics of (1) Global Goal on Adaptation (GGA) and (2) Effectiveness of Adaptation was agreed at the latest Steering Committee meeting.
 - The new Frontiers' thematic assessment on food systems' transformation will explore the climate and socio-economic impact of selected food production technologies including biomass and precision fermentation, novel vegan products, and cultivated alternatives to conventional animal-based products. More information is provided below. Funded by Belgium, release expected in early 2023.

Big Data- Big Data Branch

- World Environment Situation Room (WESR) Initiative, launched in UNEP@50, and Stockholm+50, which strategizes and operationalizes, a federated Data, Information and Knowledge Platform for Environment Action. Using a phased approach and through digital means, it will become fully functional in the next 6 years, including a *Data-driven Environmental Solutions Hub* launched at Stockholm+50. At the inception phase (phase 1, building the foundations), Several 'low-hanging fruits,' were identified and some have started provisional services to member states and UNCTs:
 - Data and statistics which contribute to reporting on the environmental SDG indicators; (linked to Sustainable Development Goals 6, 8, 12, 14, 15 and 17), marine progress report, among others.

- Country fiches and Common Country Analysis (CCA) for more than 60 countries in 5 regions.
- Support to the MEAs through further development of InfoMEA;
- Digitalization of global assessments, e.g., GEO.
- 2. In addition, the branch provides services of Global Environment Monitoring on water and air qualities, data analysis and foresight, and an open library online.

Details on each of the above topics are provided in: <u>Annex B</u>: Products and Services Portfolio of Big Data; <u>Annex C</u>: One page Presentation Synthesis of WESR; <u>Annex D</u>: WESR Facts and Figures

Capacities and Enabling Conditions for Science-Policy Interface- Capacity Development and Innovation Branch

The work of this Branch builds critical capacities and creates enabling conditions to strengthen Science Policy Interface, for climate, nature and zero-pollution actions. These systems provide decision- and policymakers with the evidence needed to understand the state of the environment and how existing or potential policies and innovations may positively or negatively affect it.

- SDG and Environment Statistics UNEP is Custodian Agency for 25 SDG indicators contributing the SDG Global database. UNEP provides statistical capacity development in 6 countries (3 in Africa and 3 in Asia) for indicator collection of data on Goal 12 (responsible consumption and production) and Goal 17 (policy coherence) in phase 2 of an EC-funded project. UNEP also tracks SDG progress trends for 92 environment-relevant SDG indicators, with its series of annual *Measuring Progress Report*.
- 2. Climate Services and Early Warning Systems (CIEWS) The Division's work on climate information and early warning systems is a vital component of UNEP's efforts to act on climate change under the current MTS. With GCF funding totaling US\$71 million, the division is currently working across five Pacific SIDS (Cook Islands, Niue, Palau, Republic of the Marshall Islands and Tuvalu) and Timor-Leste to establish, upscale and strengthen integrated climate information services and people-centred Multi-Hazard Early Warning Systems (MHEWS) to build resilience and adaptive capacity to climate change and climate-related hazards. With WMO and UNDP, UNEP has co-founded the Systematic Observations Financing Facility (SOFF), which opened its doors for business in June 2022 through a Multi-Partner Trust Fund (UNMPTF), supporting basic climate observations in LDCs and SIDS.
- 3. Enabling Innovation work includes the scanning, identification, and promotion of promising innovative environmental solutions (both technological and nature-based) to respond to environmental challenges. This work is undertaken primarily through an Innovation Facility which is supported by a network of inhouse and external, partners. In the current MTS, the focus will be to strengthen the know-how of national and local governments, as well as private sector entities, to finance, implement, and invest in innovative solutions in impact sectors. Our services and products include guidelines, methodologies, training modules, hands-on coaching technical backstop and support, and other relevant tools. Potential Collaboration with the EU/DG Research and Innovation is expected as we have started collaboration with Asia and North America.