



The Committee on Earth Observation Satellites

Working Group on Capacity Building & Data Democracy (WGCapD)

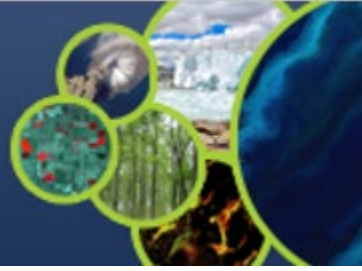
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Mr. Dan Matsapola

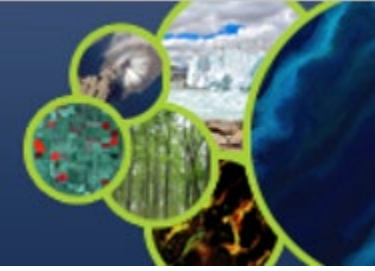
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- 1. Review of Agenda**
- 2. Summary of CEOS SIT**
- 3. Presentations from WGCapD**
- 4. Actions from UN/SpaceWGCapD-12 and way forward**
- 5. AOB**





In WGCapD Workplan

- ❑ CB-23-06 (delivery date: Q4 2023): Recovery Observatory for Decision Makers
- ❑ CB-22-04 (delivered by Q4 2022): Earth Observations and Recovery Observatories – Capacity Building for Decision Makers
- ❑ CB-21-05 Capacity Development for Flooding Plan (delivered by Q4 2021)
- ❑ CB-21-07 MOOC on Disaster Risk Management (delivered by Q2 2021)
- ❑ ...

Other upcoming activities (CSSTEAP)

S.N.	Course Name	Commencement Date	Concluding Date	Duration
1.	Short Course on Geospatial Application in Disaster Risk Reduction for Environmental Disasters (Forest fire, Heat wave and Atmospheric Pollution)	03 July 2023	14 July, 2023	2 weeks

- Identification by space agencies of list of information layers that are shared using machine to machine interfaces (API)
- Identification of learning resources/best practices and other resources that are in the form of code (e.g. jupyter notebooks)
- Identify and Answer to the needs raised during the last UN-Space/WGCapD-12 meeting



Case Study – Chad floods 2022

Event

Early warning Watchlist

1-6 months

- Seasonal watch list by EME Early Warning unit
- Sub-national flood risk analysis under development

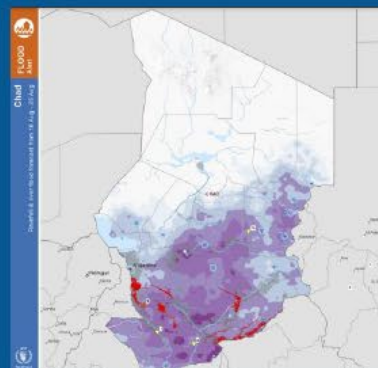


Area	Watchlist Category	Priority	Remarks
Abéché	High	High	...
Abéché	Medium	Medium	...
Abéché	Low	Low	...

Rainfall forecast & flood alert

10-14 days

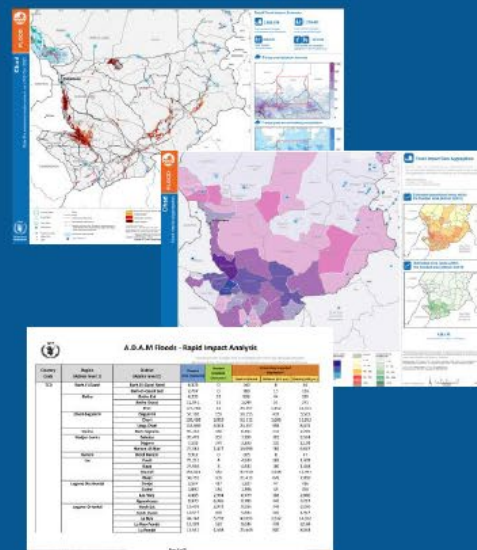
- Rainfall (3-day, 5-day and 7-day)
- Flood inundation forecast (6-day)



Automatic Impact Analysis

72-hour post flood

- Satellite-derived impact analysis (population, crop, points of interest)

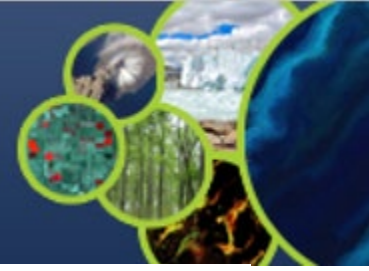


On-demand Operational Dashboard

Through the course of response

- Interactive, near-real time providing operational overview, tailored to DO needs





Capacity Building Needs

- More **RADAR** based analysis for damage estimation – especially during floods, earthquakes, tropical storms and conflicts
- More **awareness on available wealth of satellite data** and in standardization of methodologies
- Physical basis of Earth Observation for data scientists coming from other areas.
 - Good resources on **analysis of satellite data** for hazard mapping and land cover / change
- Foundational resources on applied remote sensing adapted to typical WFP needs to cover basic requirements and more **intermediate level courses** for those already with good foundations or able to progress
- **Advanced processing** with use cases in R and Python for EO analysis including Jupyter Notebooks and better use of Google Earth Engine



Use of spatial data and remote sensing

Capacity Building and knowledge:

- Integrated approach to drought
- Early warning Systems
- Drought Risk Assessment



> Drought Toolbox



> Sand and Dust Storms
Toolbox

Governance on Land Degradation Neutrality:

- Monitoring and reporting on global land degradation
- Reporting on drought



> PRAIS country reporting



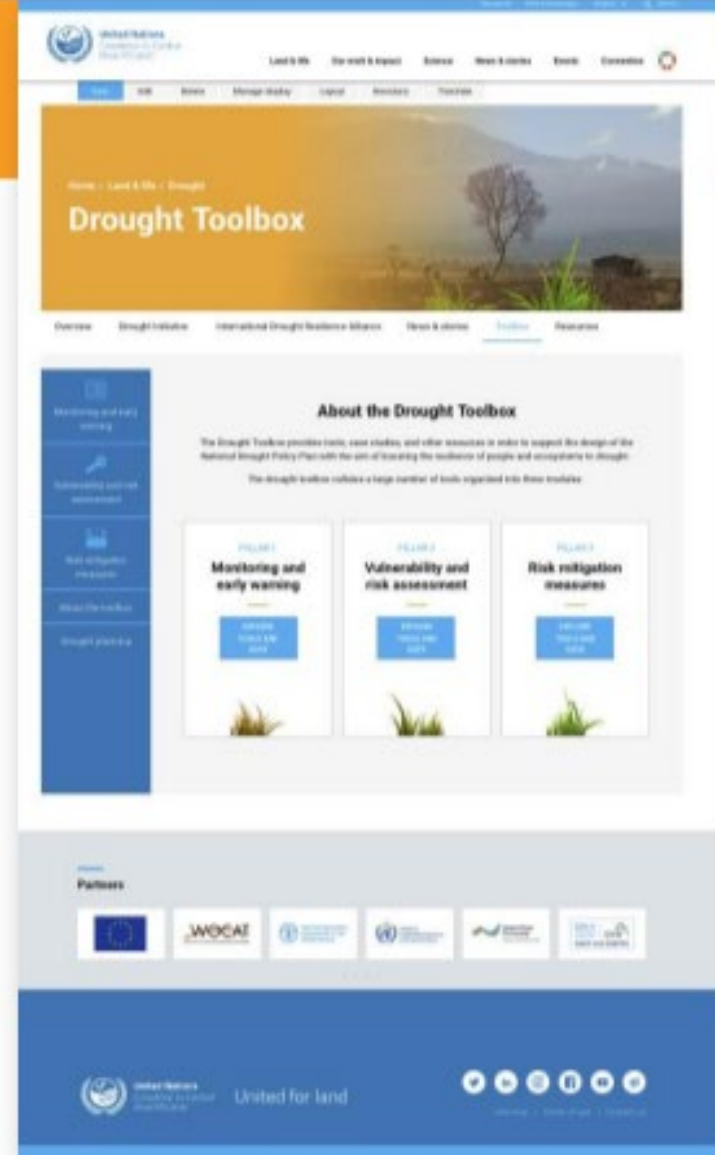
The UNCCD Drought Toolbox

Toolboxes bring together tools from a broad range of partners

Promote an integrated approach

Need for knowledge on Monitoring, EWS, risk assessment and mitigation measures

Upcoming: SDS Toolbox (incl. Tools for source monitoring)





Most Relevant programs to Earth Observation- Risk knowledge

- The [RiX](#) aggregates open-source information for sharing risk data among global and national end users
- Losses and Damages new tracking system
- Benchmarking progress on DRR and adaptation
- Informing recovery, preparedness, early warning system and financing

Risk Information Exchange

Costa Rica RIX Spotlight
Disaster Risk Data Overview

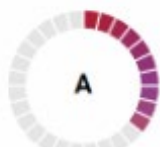
desinventar
Disaster Information Management System

EARLY WARNING FOR ALL
Executive Action Plan
2002-2007

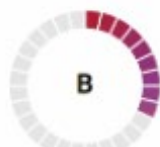
Building Disaster Resilience to Natural Hazards in Sub-Saharan Africa Region, Countries and Communities

About the catalog

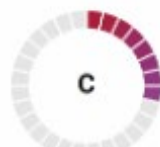
TARGET REPORT II



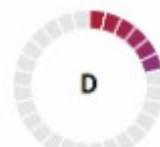
Mortality



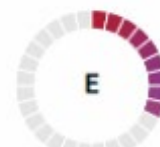
People affected



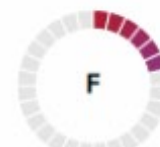
Economic loss



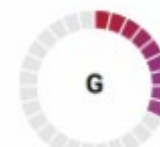
Critical infrastructure & services



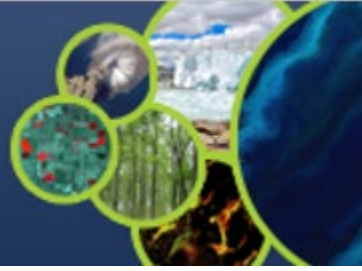
Disaster risk reduction strategies



International cooperation



Early warning and risk information



Training and data needs

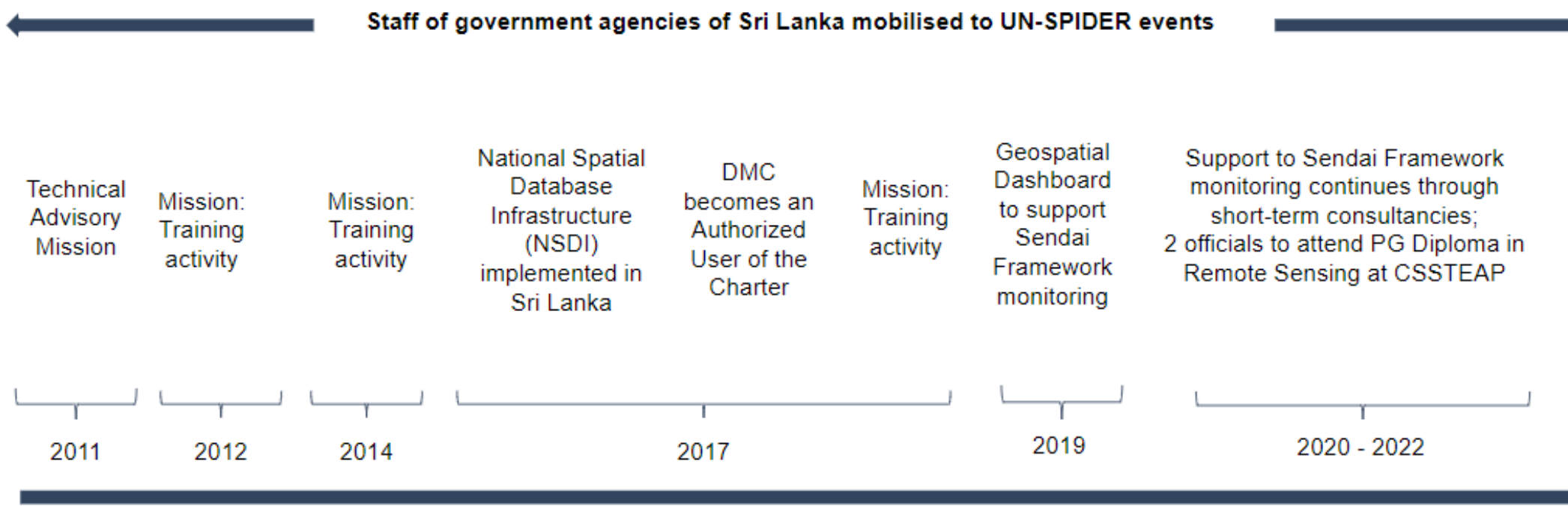
- **Capacity development**
 - Earth observation for losses and damages tracking issues in understanding which source and tools are more suitable for each level of analysis – analysis ready datasets for government decision-makers response and recovery
 - Earth observation tools for risk assessments and evaluation
 - ✓ Risk knowledge for Early warning – early action
 - ✓ Impact-based forecasting



Capacity building /institutional strengthening



Sri Lanka: National Spatial Database Infrastructure (NSDI), Sendai Framework monitoring tool and support during disasters





UN-SPIDER needs



New technologies and availability of data

➔ Mobilization of experts,

Provide targeted, prioritized support to countries

➔ Financial or in-kind resources for mobilization of experts and participants from developing countries

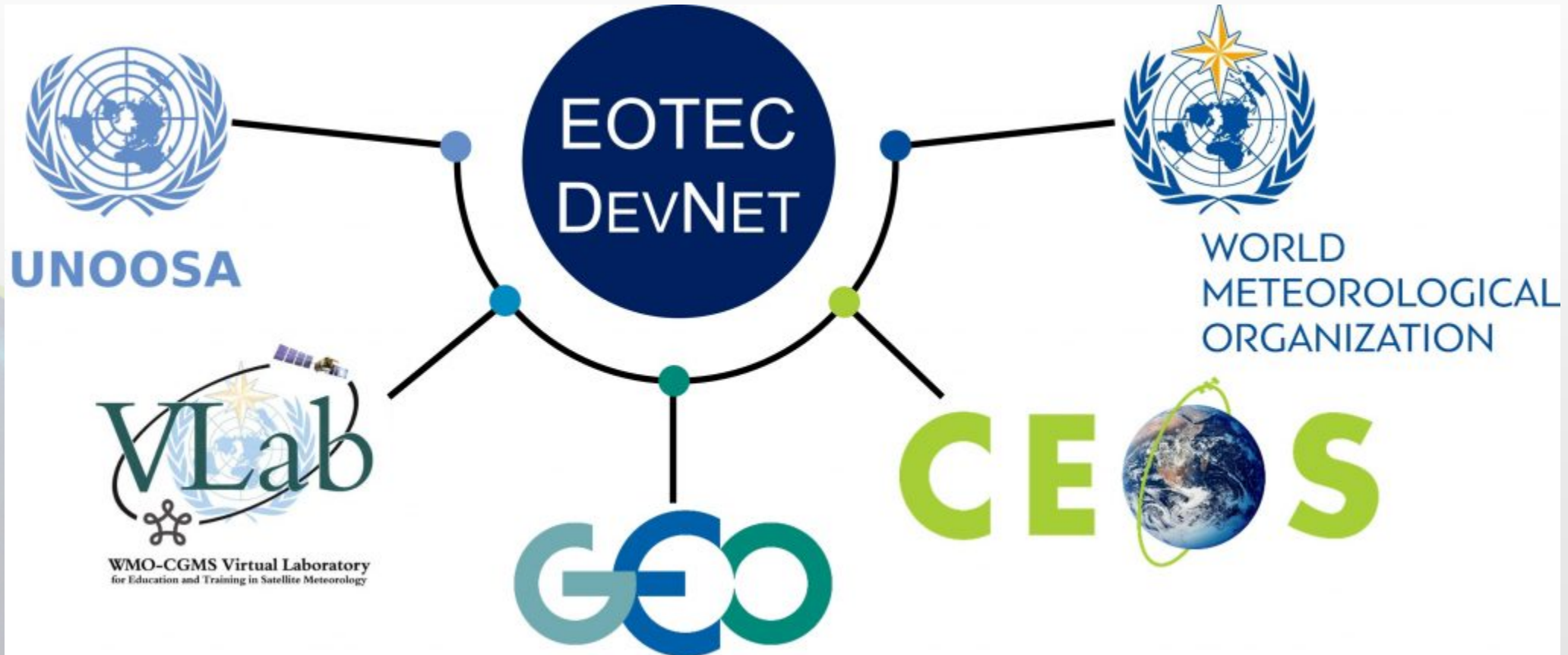
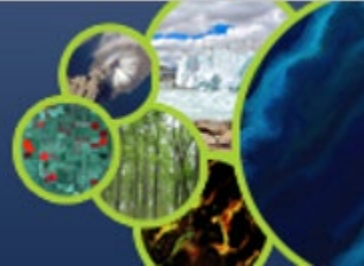
Continue activities in a number of African and Asian countries.

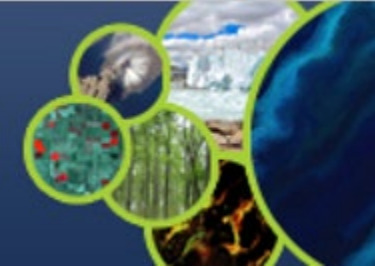
Increase number of LDC countries supported

Provide more continuous support to each country visited

Increased support to Latin America, Caribbean, the Pacific







Welcome to the beta version of EOTEC DevNet's tool tracking capacity building resources for flooding!

What is the purpose of this Tracker?

A broad range of Earth Observation tools and models exist to help with global flood forecasting, monitoring and impact assessment, each with unique inputs and capabilities. This variety can make it challenging for potential users (i.e. humanitarian and government agencies) to choose the optimal tool to prepare for, mitigate, and manage responses to specific flood events without a clear way to discern between tools or understand the options available. Once they identify the right tools, they often need training and capacity building support to be able to use those tools most effectively, which can be another barrier to use.

To address this challenge, EOTEC DevNet has launched a tracker to help users find the right flood tools and associated capacity building resources best suited for their needs. The tracker enables filtering flood tools based on the disaster risk response stage (forecasting, response, risk assessment), tool category (flood depth mapping, flood extent mapping, flood modeling), geographic domain (global, regional, local) and their operational status (operational or in development). The tracker's searchable database currently contains dozens of tools and capacity building resources and will be further expanded and refined in collaboration with regional experts.

How to use this Tracker?

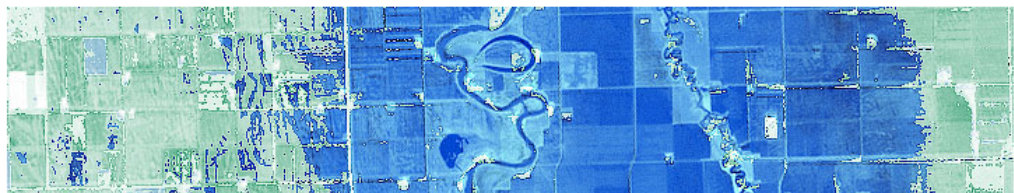
Please use the menu items on the top right side of your screen to navigate to either [Tools](#) or [Capacity Development Resources](#) sections.

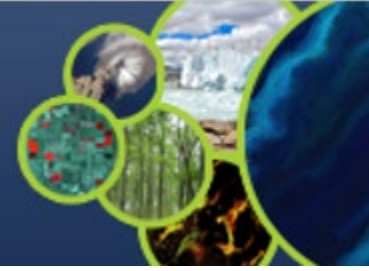
In the *Tools* section, please use the available filtering options to narrow down the list to the most relevant options. Feel free to use either a map feature that uses information about tool's self-reported applicability for a particular country, or a more advanced filter that can show the tools based on other criteria. Filtering is also available for the *Capacity Development Resources* section.

A detailed walk-through of all the features is available in this [recording](#) of the Flood Tracker Demo webinar.

How can I help this effort?

- Do you know of a helpful flooding tool not currently included in the tracker? Please [submit a request to have it added](#).
- Don't see a great capacity building or training resource featured on the site yet? Please [submit a request to have it added](#).
- Do you have feedback on how the Floods Toolkit could be further improved? Please share it by using this [questionnaire](#) or email us at EOTECDevNet@gmail.com





- **CEOS Training Calendar** – <https://training.ceos.org/>
- **CEOS WGCapD Resources Webpage** – <http://ceos.org/ourwork/workinggroups/wgcapd/resources-2/>
 - Best practices guide for conducting trainings
 - Training report template
 - Sample post-training questionnaire
 - Links for various capacity building portals and web resources
- **Distribution Lists** – WGCapD maintains a distribution list that reaches all previous trainees and can be used for sharing appropriate news and opportunities

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END

