II. Response to capacity-building needs assessment

Overarching objective: 1, 2 and 3	1.1, 1.2, 1.6, 1.7, 2.2, 2.3, 2.5 and 3.4
Country	Morocco
Outline the nature of your national challenge(s)	Morocco faces several challenges with regard to the management of natural resources and natural hazards: • Water management • Soil degradation and desertification • Deforestation and forest management • Biodiversity and natural ecosystems • Agriculture and food security • Demographic pressure and urbanization • Natural hazard management • Coastal and marine management
Please explain more, including whether you have already identified a space solution	Space solutions in these areas have been developed around the world by numerous institutions – private and public enterprises, NGOs and universities – to help decision makers and strengthen their management capacity: • Climate change: monitoring of sea level rise; monitoring of land cover and ecosystems; water and natural resource management; monitoring of extreme climate events • Water resources: water level monitoring; monitoring of soil moisture; water quality; watershed mapping; drought forecasting; flood monitoring; optimization of irrigation • Natural hazard management: risk assessment and prevention; crisis response and management; resilience and reconstruction • Land and urban planning: remote sensing for land use mapping and monitoring; disaster management and resilience planning; monitoring of the urban heat island effect; urban sustainability and environmental monitoring; simulation and modelling of urban growth • Agriculture: disaster early warning and dynamic monitoring system; extraction of crop distribution information and precise area estimation; dynamic monitoring and evaluation of crop growth; rapid forecasting and precise estimation of crop yields • Coastal and marine studies: monitoring of ocean currents and water temperature; protection of biodiversity; detection of marine pollution; coastal erosion and sea level rise; mapping of fish stocks; monitoring of fishing and maritime activities • Forest management: forest mapping and classification; monitoring of deforestation and reforestation; monitoring of forest degradation; forest fire prevention and management
What kind of assistance would be most beneficial for you in this regard?	• Training aimed at building national capacity with respect to the use of space data, models and in situ data to tackle some of the challenges listed above • Participation in technical events: conferences and webinars relating to the latest developments with regard to applications and methodologies using space data

	• Support in the implementation of certain projects in collaboration with national and international institutions in the following priority areas: natural hazards; water resources; climate change • Capacity-building, especially with respect to the integration of AI-based methodologies for the rapid extraction of information from satellite imagery • Capacity-building with respect to the application of digital twin technology in priority areas such as natural hazards • National capacity-building with respect to the application of RADAR data to natural hazards, including landslides and earthquakes
Name of relevant national stakeholder	All CRTS partners: ministries responsible for each thematic area, national agencies and offices, universities and the private sector