EO services

Service ID: name	EO products forming the service	Ancillary data for the service	User needs addressed by the service
Investment Management domain			
S01:Asset Accessibility Assessment	· Land use maps (P01) · Mapping travel times to assets (P10) · Digital Elevation Model (DEM)		UN11: Realistic assessment of accessibility to assets.
S02: Natural hazard risk analysis	· Drought monitoring at assets level (P21) · Wildfires danger forecasting (P23) · Identification of flood hazard areas (P24) · Identification of trends related to shifts in rainfall patterns (P25)		UN12: Analysis of potential risks in specific regions. UN14: Need to screen the feasibility of projects against different hazards criteria.
S03: Security risk analysis	· Predicting terrorism hotspots (P16)	· The Armed Conflict Location & Event Data Project (ACLED) · Uppsala Conflict Data Program (UCDP) · IB Global Politics - Conflict Analysis Data Sheet	UN12: Analysis of potential risks in specific regions.
S04: Client risk mapping	· Land use maps (P01) · Drought monitoring at assets level (P21) · Wildfires danger forecasting (P23) · Identification of flood hazard areas (P24) · Identification of trends related to shifts in rainfall patterns (P25)	· The Armed Conflict Location & Event Data Project (ACLED) · Uppsala Conflict Data Program (UCDP) · IB Global Politics - Conflict Analysis Data Sheet	UN13: Need to geo-map clients.
S05: Monitoring crop productivity	· Crop type and acreage mapping (P02) · Crop phenology, rotation, and number of seasons (P03) · Tillage, and crop residue cover practices (P04) · Green biomass and yield estimation (P05)		UN18: Need to monitor crop productivity.
Green Finance domain			
S06: Natural assets time series analysis	· Land cover maps (P17) · Land use maps (P02) · Vegetation indices · Monitoring reforestation and deforestation activities (P07)		UN27: Need to assess historical trends and baseline of natural assets.
S07: Assessing crop types' of impact on sustainable and environmental investments	· Crop type and acreage mapping (P02) · Deforestation activities (part of P07) · Land degradation · Carbon sequestration in soil		UN28: Need to classify the types of crops being grown to assess the Sustainability and Environmental impact of agricultural investments. UN29: Need to accurately measure the planted area for crops.
S08: Assessing trees health condition and forest carbon sequestration	· Estimation of Above-Ground Carbon Stocks in Forests (P27) · Deforestation and reforestation monitoring (P07)		UN30: Need for monitoring with accurate measurements of the growth and health of trees and verifying the sustainability of forest management practices.

	· Carbon Sequestration in Soil		
	· Vegetation Indices		
S09: Measuring the growth of carbon stocks: in forests	· Estimation of Above-Ground Carbon Stocks in Forests		UN32: Need to periodically estimate the growth of above-ground and soil carbon stocks (in forests).
	· Carbon Sequestration in Soil		
Risk Analysis domain			
S10: Natural hazard prediction	· Wildfire danger forecasting (P23)	· Historical drought maps	UN37: Need to assess historical trend and baseline of natural assets.
	· Identification of Flood Hazard Areas (P24)		
	· NEX-GDDP-CMIP6: NASA Earth Exchange Global Daily Climate Projections (to 2100)		
	· Copernicus seasonal forecast program		
S11: Geohazards prediction	· Surveillance of Oil and Gas Pipelines for Geohazard and Ground Subsidence Vulnerabilities (P37)		UN37: Need to assess historical trend and baseline of natural assets.
	· Monitoring Highway and Railway Networks (P35)		
	· Monitor Slow-Moving Subsidence (P38)		
	· Coastal erosion (P31)		
	· Dams' Safety (P36)		
S12: Historical asset data analysis	· NEX-GDDP-CMIP6: NASA Earth Exchange Global Daily Climate Projections		UN38: Need for trustworthy time series of reliable data on assets.
	· ERA5-land data (Table 26 in the Annex C.)		
	· Copernicus Land Services data (Table 26 in the Annex C.)		
	· Land use change (P01)		
	· Land cover change (P17)		
	· SPEI		
	· FAPAR anomaly		
	· Vegetation indices anomalies		
	· Soil moisture anomaly		
S13: Business activities' impact on ecosystems and biodiversity	· Deforestation activities (part of P07)	· Biodiversity Intactness Index (BII)	· UN39: Need to assess the potential impact of business activities or investments on ecosystems and biodiversity.
	· Land cover change (P11)	· Integrated Biodiversity Assessment Tool (IBAT)	
	· Land use change (P12)		
	· Vegetation indices		
	· Water quality monitoring		
	· Wetland extent mapping		
S14: Sea level risk monitoring	· DEM	· Building footprint dataset such as Bing maps or World Settlement Footprint (WSF)	· UN40: Need to monitor the risk of sea level rise threatening coastal property, infrastructure, and supply chains.
	· Land cover change (P17)		
	· Land use change (P01)		
	· Dams' Safety (P36)		
S15: Monitor temperature increase on assets	· Heat hazard maps (P29)		· UN41: Need to monitor the impact of increased temperatures on assets.
	· Impact of increased temperatures on soil moisture and vegetation condition (P28)		
S16: Climate resilient flood management	· Land cover maps (P17)		· UN43: Need to monitor changing precipitation patterns and flood risk in vicinity of vulnerable assets.
	· Land use maps (P01)		

	· Identification of flood hazard areas (P24)		
	· Identification of trends related to shifts in rainfall patterns (P25)		
S17: Urban properties geolocations map	· Land use maps (P01)		· UN47: Need up-to-date geospatial data on residential and industrial infrastructures' locations.
	· Building inventory (P09)		
Insurance Management domain			
S18: Crop damage map	· Crop Type and acreage Mapping (P02)		· UN55: Detecting crop damage at the level of individual farms/fields.
	· Changes and anomalies of multiple vegetation indices		