Earth Observation for Sustainable Development
In partnership with International Financing Institutions

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Initial Phase: Raised interest of IFIs in EO During period 2010 - 2015

- 65+ small-scale demonstrations of EO-derived environmental information in the implementation of Official Development Assistance (ODA) projects; MoUs signed.
First use of Sentinel 1 data for fisheries protection in developing countries (West Africa).

Example: World Bank project: Illegal fishing

European Commission Gets Tough with Illegal Unreported and Unregulated Fishing, With A Little Help from Liberia

December 28, 2015

Sachiko Kondo / World Bank
International Financing Institutions (IFIs): How could they use EO?

Information Drivers

• Green Growth
  ▪ Environmental impact / sustainability of economic development investments

• Climate Resilience / Proofing
  ▪ Long-term durability of development investments

• Natural Capital Valuation
  ▪ Economic valuation of Ecosystems for National and Global accounting (GDP)

• Open Development
  ▪ Increasing drive towards transparency in knowledge resources

Information Uses

• In support directly to Programs / Projects
  ▪ concept definition, planning, implementation
  ▪ close-out and remission
  ▪ as part of capacity-building in developing countries

• In support of Monitoring & Evaluation (M&E) methodologies
  ▪ as best-practice to harmonize M&E tools:
    - Feasibility
    - Environmental Impact Assessments
    - Audits
    - SDG Indicators / Reporting

• In support of policy & planning
  ▪ sectorial analyses,
  ▪ country development planning
Growing use of IFI financial resources for procurement of EO-based information

- Initial set of ESA-financed projects (total cost of 2.7 M€) have generated **directly** EO procurements by mainly GEF, World Bank & IFAD for additional activities:
  - **7 M $US** (approved & allocated)
    (forest management, urban extent, land degradation, smallholder agriculture)
  - **10-14 M $US** (in planning)
    (Great Green Wall Sahel & W. Africa, sustainable cities, food security, climate resilience landscape assessment W. Africa)

- In addition, frequent examples recent (2015) of use of EO in in 17-20 IFI projects, occurring **independently** of ESA demonstration activities.

- Longer-term ‘What-If ?’ scenario for **systematic use** of EO in of **ALL** IFI projects leads to ROM figures for annual procurement of EO-based information as (2014 projects pipeline WB, ADB, IADB, AfDB):
  - **40-50 M€/yr** for projects preparation (0.1%)
  - **140-280 M€/yr** for projects implementation (1-2%)

- Spin-off **commercial procurement** from clients in the developing countries (both government and private sector), as a result of the business networking, presence and contacts made (**EO Asian Market only**):
  - **450 M$** (2012), -> **1,500 M$** 2022
  - European share was **45 M€** (2012)
  - Realistic to grow to **100 M€** ?
Geographic distribution of ‘What If?’ scenario (i.e. EO in ALL IFI projects; WB, ADB, IADB, AfDB)
**Longer-Term Vision: Transfer EO into ODA**

(next ~ 8 years)

- **Phase 1** (25 M€, 3 years, in EOEP-5): **Consolidate Requirements, Engage Stakeholders** (IFIs & Client States) via regional demonstrations of EO for 10 specific thematic areas.

- **Phase 2** (65 M€, 5 years, EW element, C-MIN19): **Mainstream & Transfer EO** into operational working processes & financing of ODA as ‘best-practice’ source of environmental information in Environmental Safeguards Systems (ESS) and Monitoring & Evaluation methodologies, SDGs of highly relevant.

> EARTH OBSERVATION FOR SUSTAINABLE DEVELOPMENT
Phase 1: Consolidation of Requirements

Implementation: Activities

- **Phased approach**: Set-up phase (1st year) followed by Large-scale regional demonstrations (next 2 years),

- **Phase A: Strategic Planning & Stakeholder Engagement**
  - Engage IFI’s and key stakeholders in IFI client states,
  - Define mechanisms for sustainable transfer of EO and define common actions to address issues across the project life-cycle,
  - Elaborate and prepare the EO demonstrations required (European data access, service specifications, support tools, capacity-building).

- **Phase B: Service Demonstration & Transfer Preparation**
  - Develop EO service clusters, and execute/scale-up EO service demonstrations,
  - Connect to existing international networks and development support initiatives,
  - Implement cooperative training and capacity building, both within IFI (for project preparation) and IFI Client countries (project implementation); priorities: SE Asia, LAC, Africa,
  - Prepare the sustainable transfer of EO services into routine working practices of large scale ODA programmes and projects.
EOEP-5 Block 4: **EO for Sustainable Development**

- **10 Large-Scale Activities** in remaining high-priority thematic domains to consolidate Requirements & Engage Stakeholders (IFIs & Client States) via regional demonstrations of EO, (each contract 2 M€, 3 years)
  - **2016** (started): *Agriculture, Urban, Water Resources*
  - **2018** (ITT June): *Energy & Extractives, Forest Management, Ecosystems Services,*

- **EO for SDGs** for in-depth review of the SDG Global Indicator Framework, assess potential use of EO in SDG targets, showcase EO for a few of SDG Indicators country-level demonstration in partnership with the National Statistical Office (1 contract, 400 K€, Q2)

- **EO ‘Walk-in Clinic’** for rapid-response, small-scale exploratory uses of EO information in Bank projects/activities (1 contract 2 M€, 3 years, ITT 2017), pre-qualified EO information suppliers, 2-3 competing consortia for EO service provision (40 K€ Euro max units).

- **EO for Environmental Safeguards policies**, Monitoring & Evaluation Methodologies, Environmental Impact Assessments (1 contract, 500 K€, 1.5 years, ITT Q1 2018).
• Official Development Assistance (ODA) is a sector of huge (and long-term) economic activity with increasing attention on environmental sustainability (green growth) and climate change (resilience, proofing) of the (mainly large infrastructure) investment projects to promote economic growth in developing countries,

• Earth Observation can deliver key environmental information that supports the definition, planning, implementation, monitoring and assessment of many (not all) major projects and programmes.

• Europe has world-leading capabilities in Earth Observation (both ESA and national EO missions) and a highly skilled and experienced EO information services industry. WB and ADB recently signed long-term, strategic cooperation agreements with ESA.

-> Significant opportunity to take EO to a new, highly relevant user community; CEOS and GEO can be key.
Thank You!

and ....

For further information.