Satellites for international development

Perspectives from the Norwegian Space Agency (NOSA)

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NICFI Satellite Data Program

- Established by Norway in 2020
- Targets governmental users
- Extended in 2024 with co-funding from Bezos Earth Fund

Optical images with 3-5 m resolution

27000+ users worldwide

Covers 100 countries monthly - superusers have daily updates
2007 → 3 billion NOK annually to protect and restore tropical forest.

REDD – Reduced Emission from deforestation and forest degradation.

NICFI → detailed satellites images could be used by the forest countries.

2012 → Teamed up with UN FAO to make the SEPAL- data management platform.

2020 → Norway launched the NICFI Satellite Data Programme
International agreements paved the way for satellites

- Need for global monitoring.
- Important for international development.
Norway and international development

- Long humanitarian tradition
- Aid budget (over) 1% of GNP
- Political consensus
- UN major partner for Norway
- Priority for NOSA
Examples from Norway

National funding scheme

• Data accessible for governmental agencies, NGOs, enterprises and general public.
• The Norwegian Space Agency’s ambition is to bridge the gap between satellite data and end users.
Oil Spill Detection

Challenge:
• Six times larger ocean than land area
• Vulnerable marine ecosystems
• Responsible management

Solution:
• 1990s → First space satellite data monitoring service established, initiated by the Norwegian Space Agency
Maritime Monitoring

Challenge:
• Securing maritime traffic
• Keeping track of illegal activities
• Situational awareness

Solution:
• National AIS-bearing small satellites for multiple purposes, eg oil spill
Climate and Sustainability

Challenges:
- Forecasting weather hazards, flooding, snow avalanches, improving climate science, preventing biodegradation, risk assessment of thawing permafrost...

Solutions:
- High quality weather forecast - yr.no
- Ice mapping in the Arctic, climate monitoring
- Early warning of forest damage
- Ground motion service
Blue Justice Initiative

- Fisheries crime
  - Significant losses
  - Affects food security and living conditions
  - Impacts tax revenue and export earnings
- Norway launched the Blue Justice Initiative to help developing countries to combat illegal fishing and other forms of fisheries crime
- 2023: 60 countries
- BJ Ocean Surveillance Programme
- AIS-data and NRD
Humanitarian Aid

The Norwegian Space Agency works with various national and UN system actors to evaluate possible solutions.

- Humanitarian efforts and crises
- Uncovering human rights violations
- Global food security
- Protecting biodiversity
The Way Forward at NOSA

• Keep talking to everyone – we always need new allies 😊!
• Build teams – serve cake!
• Starting earlier with mixing R&D/industry funding with aid funding!
• Always remember why we are doing this!
• Never, never give up!
Thank You!

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