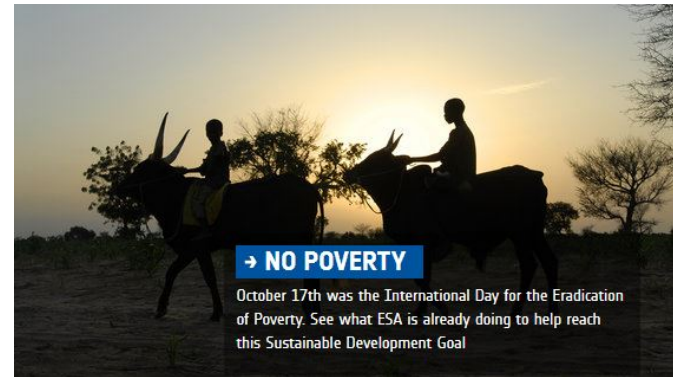


ESA Catalogue of activities supporting UN SDGs

Isabelle Duvaux-Béchon, ESA Strategy Department
COPUOS, 12 June 2017, Vienna, Austria

Addressing the global challenge of sustainable development

- Supporting ESA Member States and stakeholders to address:
 - in the long-term, to support the **economic development** and stability of the countries of origin, transit or destination of migrants (supporting the UN Resolution on the 2030 Agenda for Sustainable Development)
 - Wherever possible, **migration flows** to alleviate human suffering and avoid loss of life
- By:
 - Identifying the potential users
 - Better promoting our assets
- In view of
 - Using better our own assets
 - Identifying new lines of action

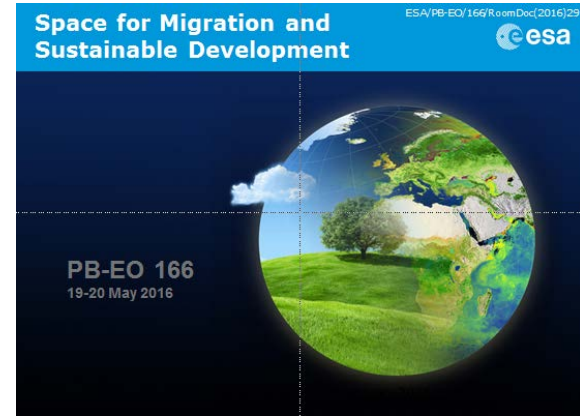


The idea of a “Coordination Platform”

- The issue of sustainable development (and migration in many cases) is **a top concern** as confirmed at Council at Ministerial level in December
- **“Users”** on the ground are often **unaware** of what space can offer, or of the applications available.
- Many **activities and services already available** in approved programmes
- In 2016 ESA proposed to MS a non binding **“Coordination Platform for the Use of Space Technologies to support Sustainable Development Goals (including Migration)”**
- Proposing a “window” (a catalogue) to **facilitate the identification** of what may be offered and **promote collaboration** between space agencies, operators and service providers

The project presented in 2016

- The idea was presented to and discussed at ESA Council and Boards concerned
- As the concept was new, there was a wish expressed at that time to better understand what it could be, the political nature (or not) of the project and the commitment for ESA
- Request by MS in Council (June 2016) that ESA:
 - Builds its catalogue as a “technical” offer to show what are the activities considered
 - Starts discussing with UN for the “political” side



Actions taken in 2016

- Project re-oriented towards Sustainable Development
- 2016 Draft catalogue and associated brochure on line in time for CM16:
 - Organised along UN SDG
 - Presenting a selection of ESA activities addressing each goal
- Discussions started with UNOOSA to ensure consistency with their projects and build partnership



Catalogue organised by SDG: www.esa.int/SDG



END POVERTY IN ALL ITS FORMS EVERYWHERE

Support to Sustainable Oil Palm Production in Papua New Guinea

INTERNATIONAL CHAPTER | SPACE & MAJOR DISASTERS

Earth Observation Support to the Storm Surge Community

ESA activities supporting Sustainable Development

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Sen2Coral

ESA activities supporting Sustainable Development

Timely Enforcement Services Using Earth Observation - Marine Pollution (MARPOL Convention)

Sen2Coral

ESA activities supporting Sustainable Development

Timely Enforcement Services Using Earth Observation - Marine Pollution (MARPOL Convention)

ESA activities supporting Sustainable Development

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Innovators III Webcam

Identifying Alzheimer's using space assets

Life Support

Scanning Earth, saving lives

ESA activities supporting Sustainable Development

ESA Scientific Exploration of Operational (SIO) Programme Sentinel-6

ESA activities supporting Sustainable Development

ESA activities supporting Sustainable Development

ANNEX

SDG1

Project	Status	Contact	Website
Agri-Chemical	On going	Ola Grøbak	WSP Project
CGRALS	Completed	Espen Isdahl	2DUP Project
Crop yield production	On going	Ola Grøbak	WSP Project
Organic agriculture	On going	Ola Grøbak	WSP Project
Innovator III Webcam	On going	Bergman Kater	2DUP Project
Human health in agriculture	On going	Oleis Anso	Smart

SDG3

Project	Status	Contact	Website
BioSis	Completed	Bergman Kater	Preparing for the future
Innovator III Webcam	On going	Bergman Kater	2DUP Project
Human Physiology research	On going	Man Høeggen	Human Spaceflight Activities
MAKIDS	On going	Christophe Lasserre@esa.int	Space Engineering Technology
ESA Chasteland Lowering Technology	On going	Christophe Lasserre@esa.int	Space Engineering Technology
STEXA Long duration advanced habitat for autonomous, non-reaching habitats	On going	Philip Batts	Space Engineering Technology
Scanning Earth, saving lives	On going	Philip Batts	Space Engineering Technology
Identifying Alzheimer's using space software	On going	Philip Batts	Space Engineering Technology
Eye-catching space technology monitoring city	On going	Philip Batts	Human Spaceflight Research
Space in your heart	On going	Philip Batts	Space Engineering Technology

ESA activities supporting Sustainable Development

the world because of concerns about their population size, health, or issues related to environmental disruption.

ESA activities supporting Sustainable Development



Council at Ministerial level – December 2016



Resolution “Towards Space 4.0 for a United Space in Europe” :

“[...]RECOGNISES that space serves societal needs, responds to European and global challenges and offers opportunities, **notably those related to the attainment of sustainable development goals and socioeconomic growth**, [...]

and therefore INVITES the Director General, acting in close coordination with the Member States, the European Union and other European public and private actors, to **ensure that ESA’s activities and programmes properly contribute to satisfying these societal needs** [...]”



Council and Boards in 2017

- Catalogue presented to Council in March
- Concept presented to IRC, JCB and PB-EO
- Well received – still questions to be answered
- Next steps:
 - Online full database
 - Cooperation with UNOOSA



ESA UNCLASSIFIED – For official use

ESA/C(2017)31
Paris, 27 February 2017
Annex
(Original: English)

EUROPEAN SPACE AGENCY

COUNCIL

Catalogue of ESA Activities supporting UN Sustainable Development Goals

Content

Council Delegations in June 2016, and following the presentation of the “Coordination Platform for the Use of Space Capabilities to support Sustainable Development Goals” (ESA/C(2016)56), asked the Executive to build a catalogue of the ESA activities supporting Sustainable Development. The first version of such catalogue has been made available on line at the end of November, just before Council at Ministerial level and is accessible on http://esamultimedia.esa.int/docs/spaceforearth/SD_Catalogue_COMPLETE_161128.pdf or via the web page www.esa.int/SDG. It is not yet comprehensive, but includes a selection of programmes and projects to illustrate the variety of the support that ESA is bringing or can bring to the SDGs. All activities shown are existing ones that are financed under the relevant ESA rules. Some are already available to all, some are in progress, some need to find users to be able to be further developed or finalised. The cover page and the table of contents are attached as Annex.

Action required

This document is provided for information.

The 2017 version of the Catalogue

- Includes additional relevant projects / activities from all Directorates
- Structured in a “universal” way so that it could be extended to other Agencies or service providers and fit UNOOSA Solutions Compendium project
- More than 550 ESA activities / projects already identified across all domains
- Aim for ESA database live before end 2017



GOAL 1 TARGETS

1.1

By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

1.2

By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3

Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4

By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance



	Content
Proposed activity	Short description
Relevance	Relevant SDGs and targets Socio-economic aspects Testimonies
Status of the activity	Available On-going To be adapted Call for interest
Terms of use	Free access to data or free service Related costs / price
Contact point	ESA / Entity in charge or Third party

Example: CEMENT PLANT IN ETHIOPIA (EOP, VAE)



- Building the resilience of vulnerable populations to extreme poverty and other socio-economic shocks
- Reducing the proportion of women, men and children living in poverty



Creation of schools for the workforce and their families



- Directly sustaining income growth
- Empower and promote the socio-economic inclusion of all
- Provision of equal opportunities through jobs creation, health care centres and schools implementation, infrastructures development

STATUS : ? Starting date in 2012 | **TERMS OF USE** : ?

DESCRIPTION :

The EIB is funding the construction and operation of a full cement production line in Oromiya, north of Addis Ababa, including the development of a limestone/clay quarry for the necessary raw materials, a road network (e.g. asphalted road access from Derba town and a service road between the plant and the quarry), an electricity line and infrastructure for the workforce (school, health centre, etc.). The plant is designed for a future capacity doubling with an equivalent, adjacent production line. Construction started in 2008. The plant will address a growing demand for cement in Ethiopia and should have a positive impact on economic activity in the area through creation of direct employment, underpinning the livelihood of more than 2,000 inhabitants in the local community.

[Project website](#)

ESA CONTACT POINT: Pierre-Philippe Mathieu

Other CONTACT POINT: ? – Gisat as supplier, EIB as user



Providing health care centres in remote area.



Providing decent jobs and incomes and improving the livelihood of the inhabitants of Oromiya.



Creation of decent roads and infrastructures.



Empowering remote communities with job creation, incomes, roads and connectivity, quality education and training.



Example: SWAY4Edu - Satellite Way for Education (ARTES)



STATUS : Completed (2014) | **TERMS OF USE :** ?

DESCRIPTION :

SWAY4Edu aims at developing a satellite ICT (Information Communication Technology) solution to support three main activities:

1. Rural Radios: assisted radio services for secure and sustainable agricultural development in the Democratic Republic of Congo (DRC),
2. Electoral eTraining: effective Electoral eTraining services to electoral management bodies of the Economic Community of Central African States (ECCAS) to support their electoral cycles,
3. Space4Education: effective eLearning services to support education in rural schools in South Africa (SA).

SWAY4Edu is conceived to be easily scalable and adaptable to other (non) African countries.

[Project website](#)

ESA CONTACT POINT: Davide.Tomassini@esa.int

OPENET CONTACT POINT: fcuccarese@openet.it

2 ZERO HUNGER



Rural Radios: assisted radio services for secure and sustainable agricultural development in the Democratic Republic of Congo (DRC)

4 QUALITY EDUCATION



Interactive training courses for local teachers, to obtain teaching certifications,

- Sessions for intra-school collaboration,
- Light cyber café outside educational time

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Creating a core group of local accredited trainers and experts (named "Facilitators") in the Electoral Management Bodies (EMB) of the Community of Central African States (ECCAS) to support the electoral cycles.

3 GOOD HEALTH AND WELL-BEING



Providing e-training support for medical staff in remote areas.

10 REDUCED INEQUALITIES



- Bridging the connectivity gap
- Aiming to provide quality education for all
- Aiming to provide decent health care services for all

11 SUSTAINABLE CITIES AND COMMUNITIES



Empowering remote communities with connectivity, quality education and training.



- UNOOSA is working on a project with two different elements:
 - A "**space for development profile**" with rating /scoring of countries
 - A "**compendium of solutions**" with appropriate details, that could be proposed to the countries to help them reach improved rating
- This second element is quite close to the idea of the catalogue proposed by ESA, with the details as planned for the 2017 version
- We are discussing with UNOOSA for our catalogue to become the/a the compendium they propose
- The ESA project is being presented in 2017 at the meetings preparing UNISPACE+50 (COPUOS today, Graz symposium, IAC, HLF) with an implementation that could be planned for UNISPACE+50 in June 2018

- Elaboration of the 2017 version of the **catalogue**
- Discussion with **UNOOSA** to elaborate in common the “Solutions database / compendium” in terms of aim and content
- Progress regularly presented to ESA **Council** and Boards and discussion with **interested ESA MS** to develop the European “offer” wider than ESA
- Political discussions led by UNOOSA with the support of ESA in order to identify and convince world space agencies, service agencies or service providers to join the initiative