



UiO : **Department of Geosciences**
University of Oslo

Geological resources and sustainable development

learning to live in a finite world



Academic partners



Support by:



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Project synopsis

- **Bilateral cooperation** in higher education between **Norway & Brazil**
- **Project timeline:** January **2018** to December **2021**
- **Financial support:** SIU-Norwegian Center for International cooperation in Education
- **Partner institutions:**
 - ✓ Academic: UiO-University of Oslo, UFPA-Federal University of Pará
 - ✓ Non-academic: Norsk Hydro Brazil. Bauxite mine in Paragominas
- **Main goals:**
 - ✓ **Training and internationalization** of **students** from UiO and UFPA
 - ✓ Strengthen the **collaboration** between **academic** and **non-academic institutions**
 - ✓ Raise **public awareness** in local communities
 - ✓ Prepare joint UiO-UFPA **scientific and outreach publications**

Project members



PHOTO:©UiO/NGI/Gijs Breedveld

UFPA staff in project:

Candido Moura, Afonso Nogueira, Fabio Domingos, Aline Meiguins, José Augusto Correa, Jean Michel Lafon, Claudio Szlafsztein, Marcelo Cohen, Marco Antonio Toro, Francisco Matos de Abreu

UiO staff in the project:

Clara Sena, Anja Sundal, Brit Lisa Skjelkvåle, Mònica Guillen-Royo, Helge Hellevang, Gijs Breedveld

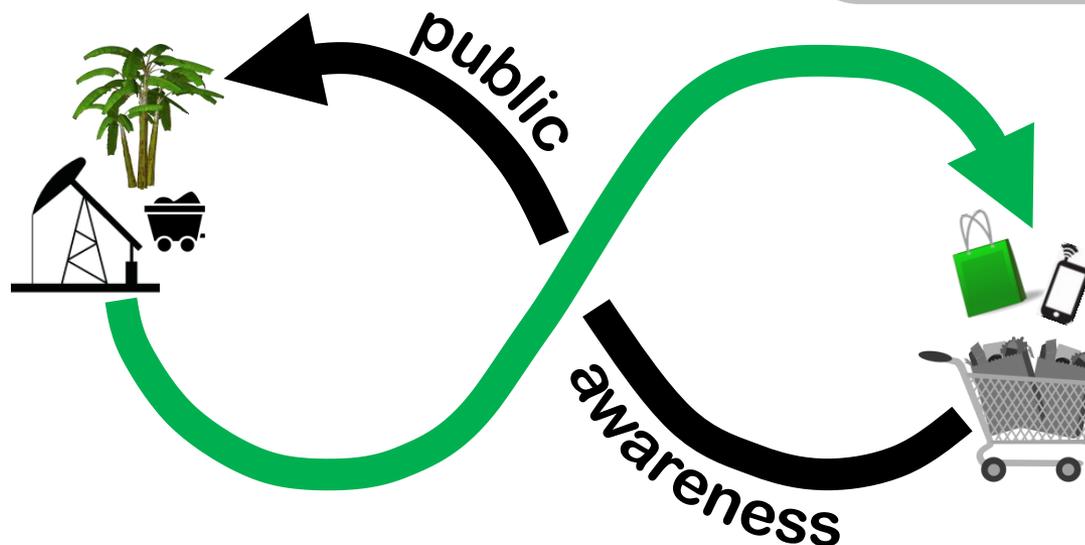


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Scientific topics of the project

- Emerging economies
- Non-renewable geological resources
- Freshwater resources

- Wellbeing societies
- Consumption patterns
- Social equality



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Sustainable Development

- Socio-economic development that allows us to **meet the needs of the present without compromising the ability to meet the needs of the future** (Stern et al., 1996, journal *World Development*)
- In 1991, Max-Neef's book on *Human Scale Development*:
 - ✓ **societies are interconnected and interdependent**
 - ✓ sustainable development relies on the **principles of sharing and solidarity**



17 Sustainable Development Goals

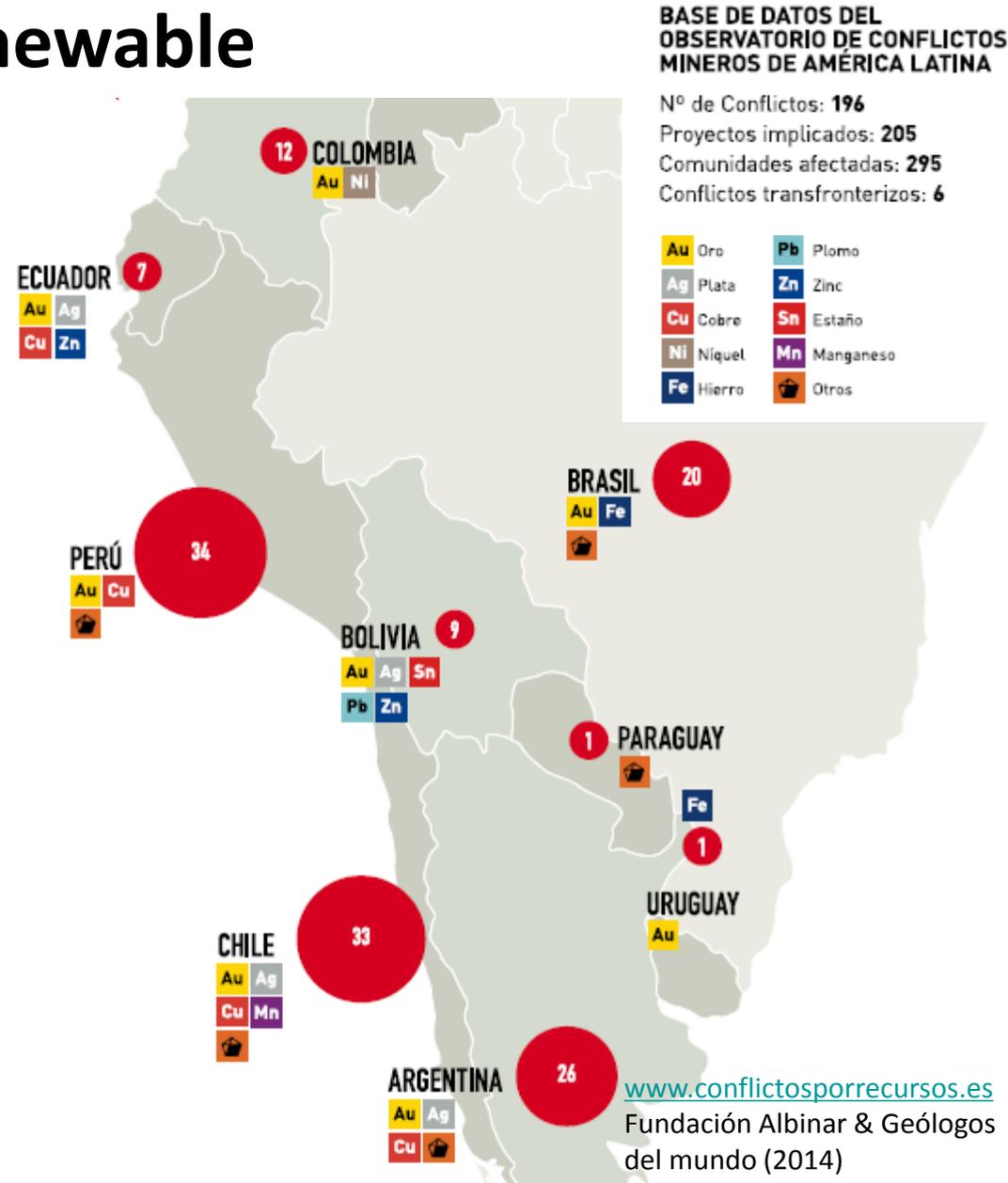


<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

- In 2015, the United Nations defined 17 goals to **end poverty, protect the planet, and ensure prosperity for all**
- **Everyone needs to do their part:** governments, the private sector, civil society and general citizens

Renewable & Non-renewable Geological Resources

- By comparing the **rate of regeneration of natural resources** with the **rate at which these resources are consumed**, we classify them in Renewable and Non-Renewable
- **If extracted sustainably, and treated properly, water** is a renewable resource
- Mineral resources and oil are non-renewable
- **Extraction of non-renewable resources** triggers **wealth**, but also **social inequalities**, including armed conflicts



Learning to live in a finite world



El 70% de los recursos naturales extraídos se destinan a las necesidades básicas de la vida diaria.

www.conflictosporrecursos.es

Fundación Albinar & Geólogos del mundo



- The **highest consumption rate of mineral resources** is in the **Northern hemisphere** countries
- The **highest minerals extraction rate** is in the **Southern hemisphere countries**
- Shift from a resource-intensive society to a sustainable human-needs society

Panorama strategy of the Norwegian Government

- Strategy for cooperation on higher education and research with Brazil, China, India, Japan, Russia and South Africa
- **Brazil is a key actor regionally and globally, and is closely linked with Norwegian foreign economy**
- The Amazon Region where this project occurs is a primary recipient of the **Norwegian humanitarian and development assistance**
- In this project, we aim to promote the **transfer of social and environmental values** between students, professors, researchers, and civil society in Norway and Pará



Timeline of activities

Activity	Mobility	2018	2019	2020	2021
Presentation of the project at UFPA	Two researchers from UiO visit UFPA	✓			
Presentation of the project at UiO	Two professors from UFPA visit UiO	✓			
Training course for UFPA students	Two researchers from UiO visit UFPA		✓		
Portuguese language course for UiO students	Exchange semester in Brasil for UiO students		✓		
Exchange for UFPA student	Exchange semester at UiO for one UFPA student		✓		
Field-work in Hydrogeology in a study area in Pará	Two researchers from UiO visit UFPA UFPA students participate in the field			✓	
Exchange for UiO student	Exchange semester at UFPA for one UiO student			✓	
Guest talks at UiO	Two professors from UFPA visit UiO			✓	
Exchange for UFPA student	Exchange semester at UiO for one UFPA student				✓
Hydrogeology field course in Pará	UiO students work together with UFPA students in a study area in Pará				✓

The project offers to UFPA students:

- **3-days training course at UFPA, August 2019**
- **Internship/Exchange semester in UiO (2019, 2021)**
- **Hydrogeology field-course in 2020, in Pará (Salinópolis)**
- **Hydrogeology field-course in 2021, in Pará (Salinópolis), to work together with Norwegian students in the field**

UFPA students are invited to give to the project:

- **Contact point in the project for the integration of foreign students in UFPA, and Belém**
- **Contact point for the periods in which Norwegian students will stay in UFPA**
- **Collaboration with Professors and Researchers in the field-work that will occur in Pará in 2019, 2020, and 2021**

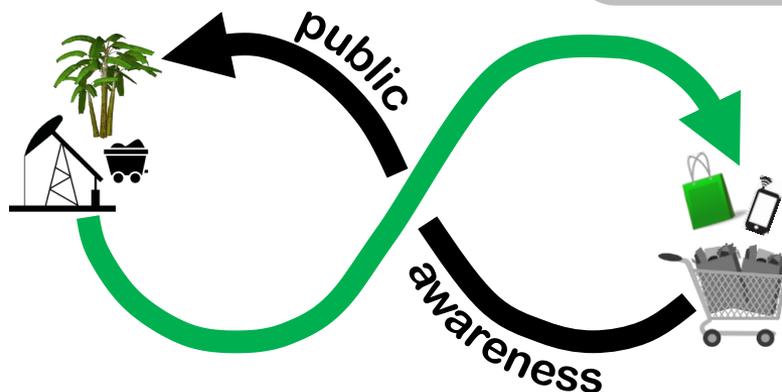
Next year! (2019)

- **3-days training course at UFPA (in August). Hydrogeology, Environmental Geology, Sociohydrogeology**
- **1 scholarship for one UFPA student to do one semester at UiO**
- **Contact point for the four Norwegian students**
- **Collaboration in the field-work in Pará (Salinópolis), in August**

**Muito obrigada
pela vossa
atenção!**

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