S A T R E P S

Science and Technology Cooperation
on Global Issues
by the Government of Japan

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Japan International Cooperation Agency (JICA)

Peru Office

many of the greatest threats issues on a global scale

"global warming"

re

Study on GLOFs* in the Bhutan Himalayas
* Glacial Lake Outburst Floods

"energy and natural

Solar Energy project in Algeria

"

"

Water reuse project in Thailand

s"

Dengue Virus project in Thailand

SATREPS

Science and Technology Research Partnership for Sustainable Development.

* In FY2008, Japan launched a program called **"Science and Technology Cooperation on Global Issues"** as a framework for international cooperation in order to resolve global issues.

* Three Agencies

Japan International Cooperation Agency (JICA)

development assistance (ODA)

Japan Science and Technology Agency (JST)

Japan Agency for Medical Research and Development (AMED)

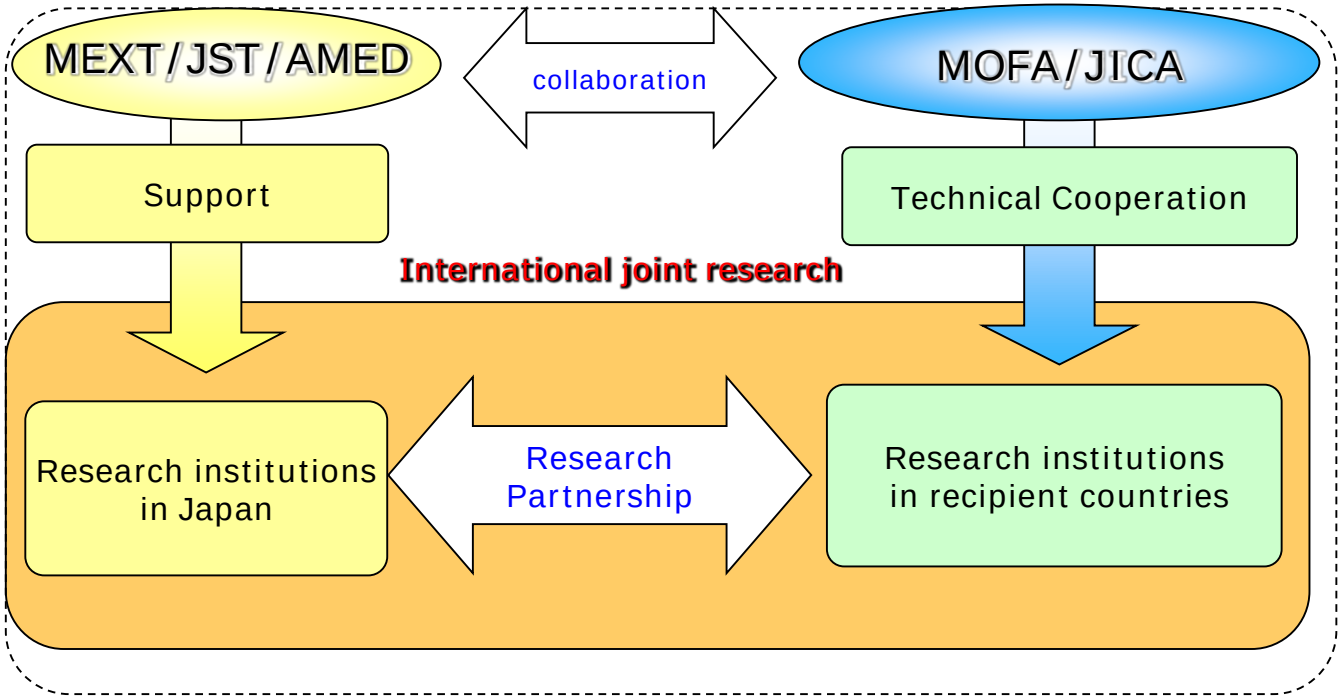
competitive research funds for science & technology projects

* collaborated to organize a new program, **"SATREPS"** that promotes international joint research.

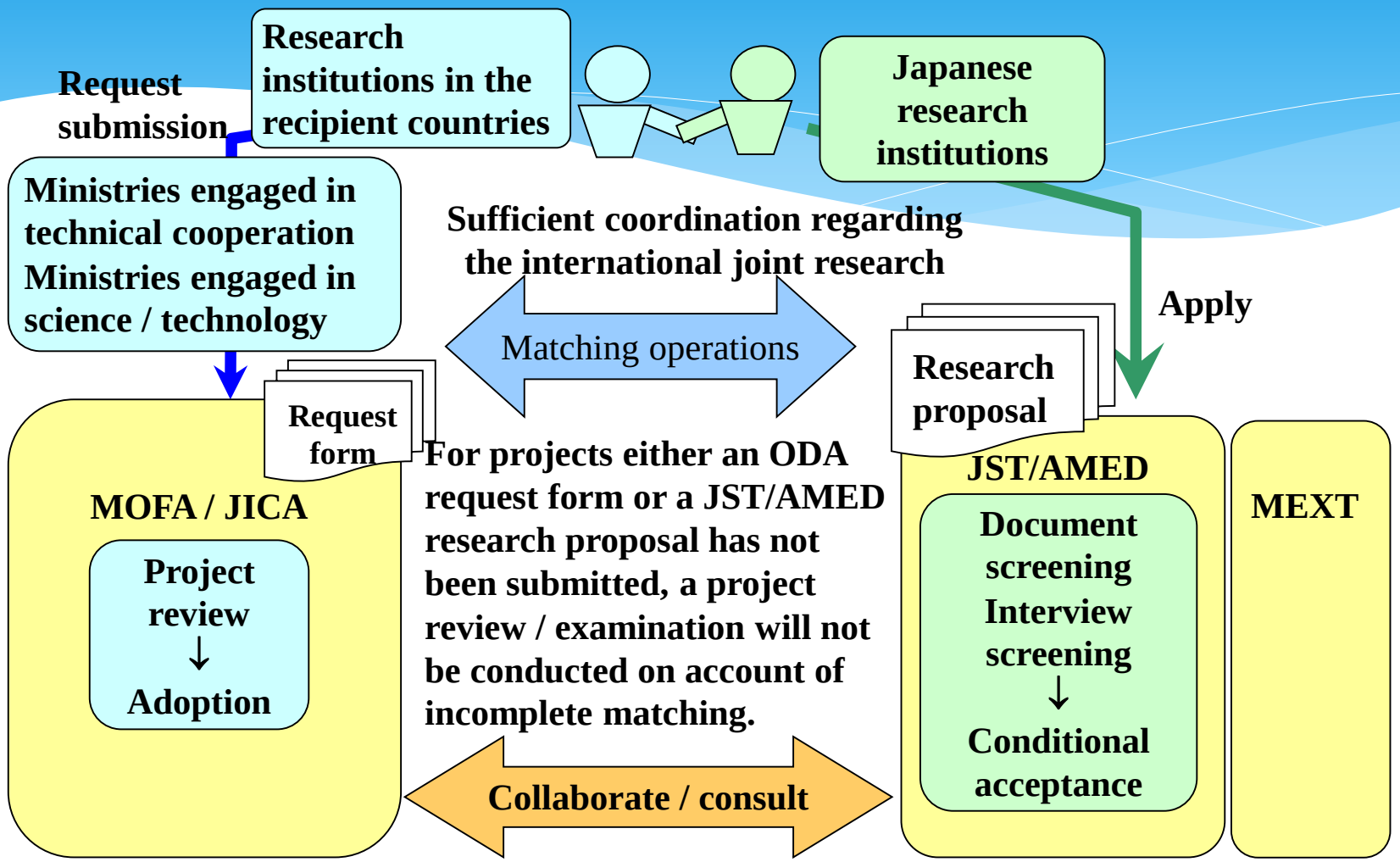
Framework of SATREPS

JICA supports project implementation, such as dispatch of Japanese experts, provision of equipment and training of personnel, and other supports **in the recipient country**.

JST /AMED support the Japanese research institutes/researchers for the project activities **in Japan**.



First Step of SATREPS



The objectives of SATREPS

* To promote **international joint research** between Japanese universities and research institutes and those of recipient countries
* To develop and utilize **new technologies and knowledge**
* Lead to **the resolution of global issues** as well as **the advancement of science and technology**
* Capacity development, to develop **human resources for R&D** (Research and Development)
* To develop **sustainable research activities** for addressing global issues

SATREPS's 4 fields as main targets

1 **"Environment/Energy" (JICA & JST)**
- 1 — 1 "Climate Change"
- 1 — 2 "Low Carbon Society"
- 1 — 3 "Global-scale Environmental Issues"

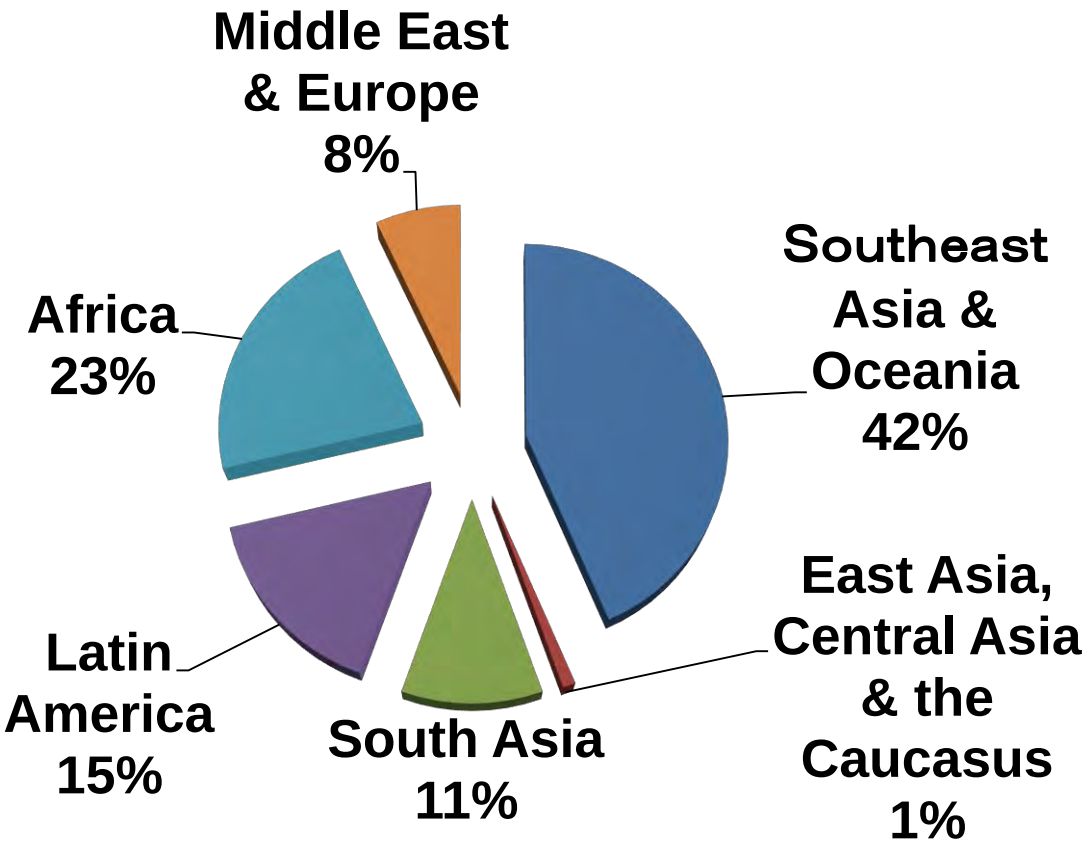
2 **"Bio-resources" (JICA & JST)**

3 **"Natural Disaster Prevention" (JICA & JST)**

4 **"Infectious Diseases Control" (JICA & AMED)**

The Regional Distribution of SATREPS

Total Number of Projects : 115 (as of May 2016)



A few examples of SATREPS in the region

* Peru – Japan

"Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru"

* Argentina – Chile – Japan

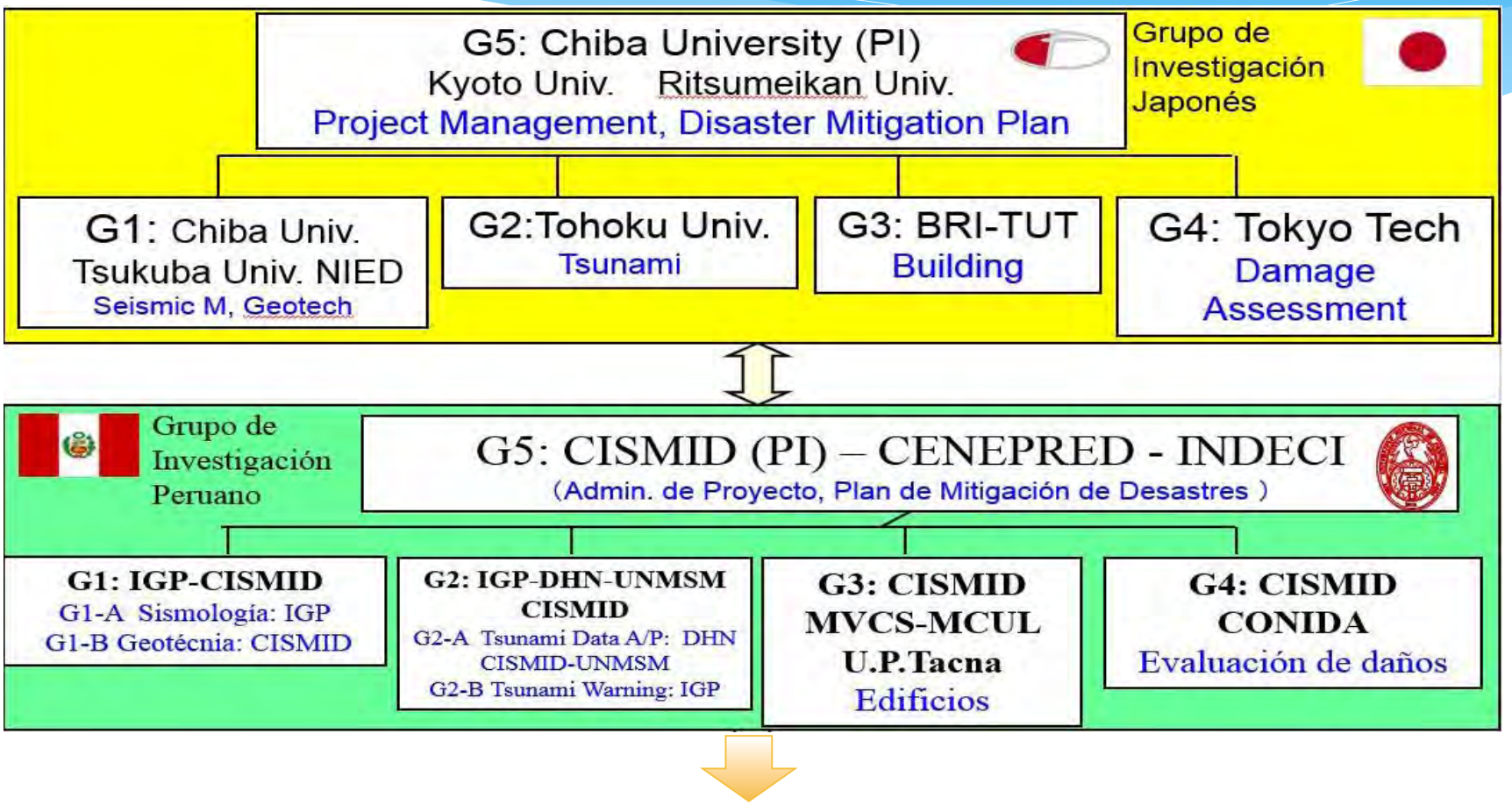
"Development of Atmospheric Environmental Risk Management System in South America"

“Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru (2010-2015)”

* Peru is located on Circum-Pacific earthquake belt, with high risk of earthquakes and Tsunamis.
* Big earthquakes have occurred in Peru such as the earthquake in Atico (2001) and in Pisco (2007).

⇒ **Importance for preparing earthquake and Tsunami disaster mitigation plans.**

“Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru (2010-2015)”

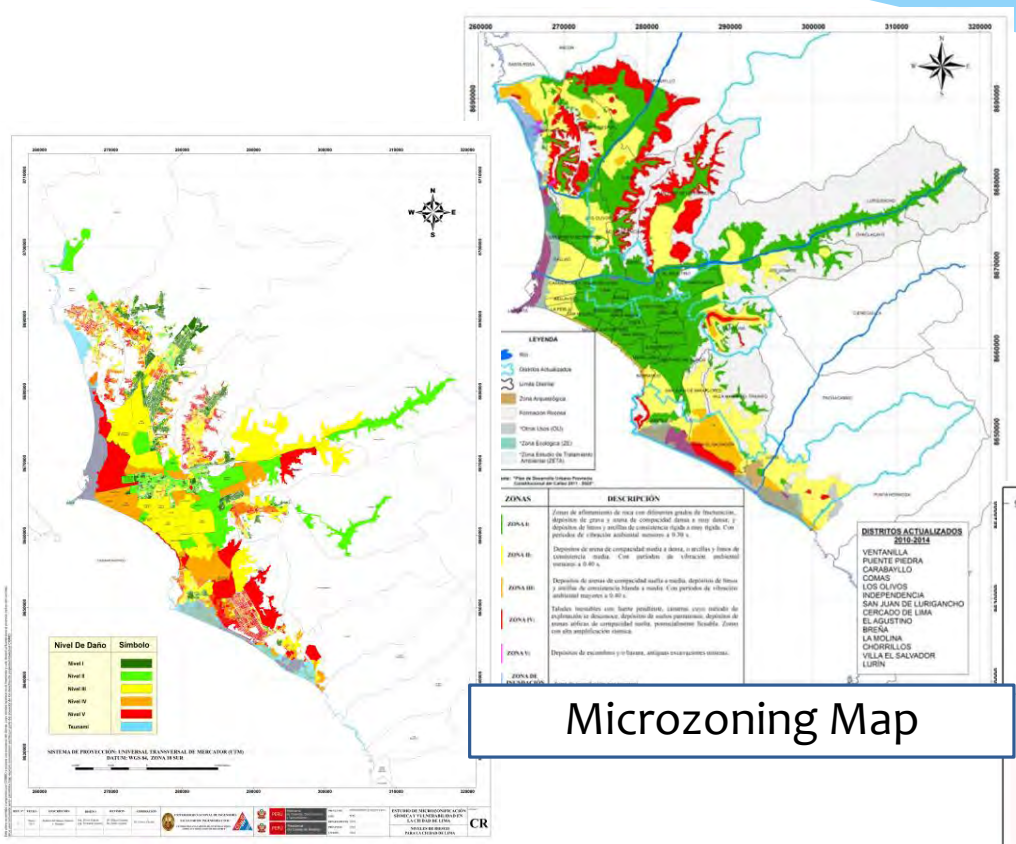


Improvement of Technologies for Earthquake and Tsunami Disaster Mitigation

“Project for Enhancement of Earthquake and Tsunami Disaster Mitigation Technology in Peru (2010-2015)”

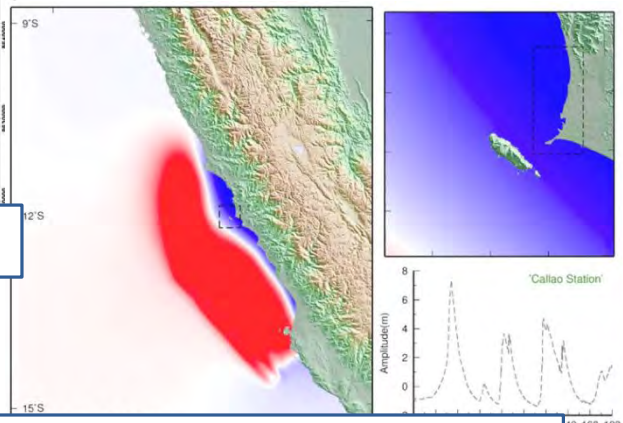
Tools elaborated through the Project

Reinforcement Technique



Earthquake Risk Map

Microzoning Map

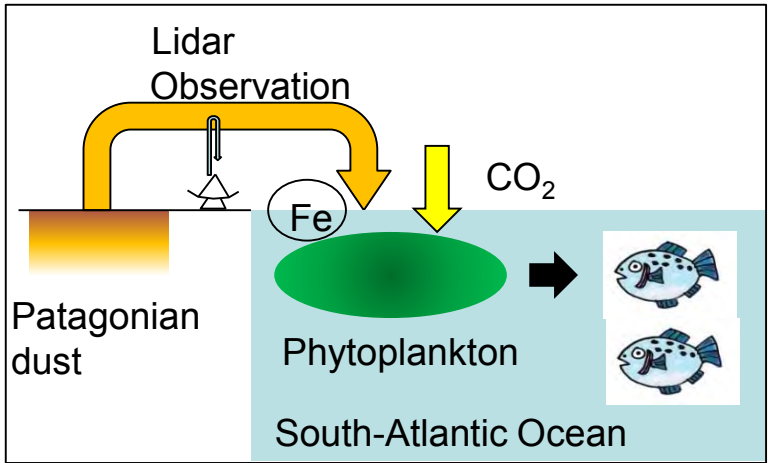


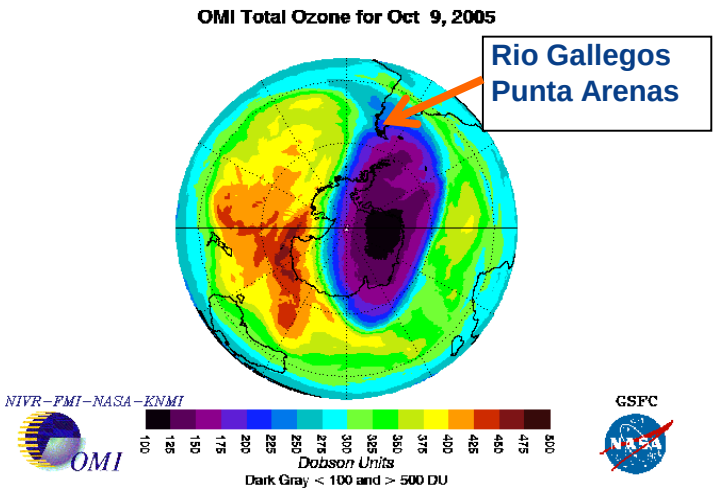
Flood Simulation Map

"Development of Atmospheric Environmental Risk Management System in South America (2013-2018)"

Trilateral international collaboration (Japan, Argentina, Chile)

* Aerosols, Ozone, and UV are not only global issues but also more regional and serious for South American countries.
* Soil aerosols in Patagonian desert flow onto the south Atlantic Ocean and influence the CO2 budget and fishery resources via increase of phytoplankton.
* Ozone hole, most serious ozone depletion, directly comes over Southern Patagonia.





"Development of Atmospheric Environmental Risk Management System in South America (2013-2018)"

Project Objectives:

1. Construction of observing network

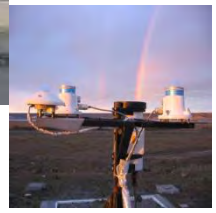
2. Data analysis, modeling, and forecast

3. Near-real-time distribution of risk information

Measurement activities

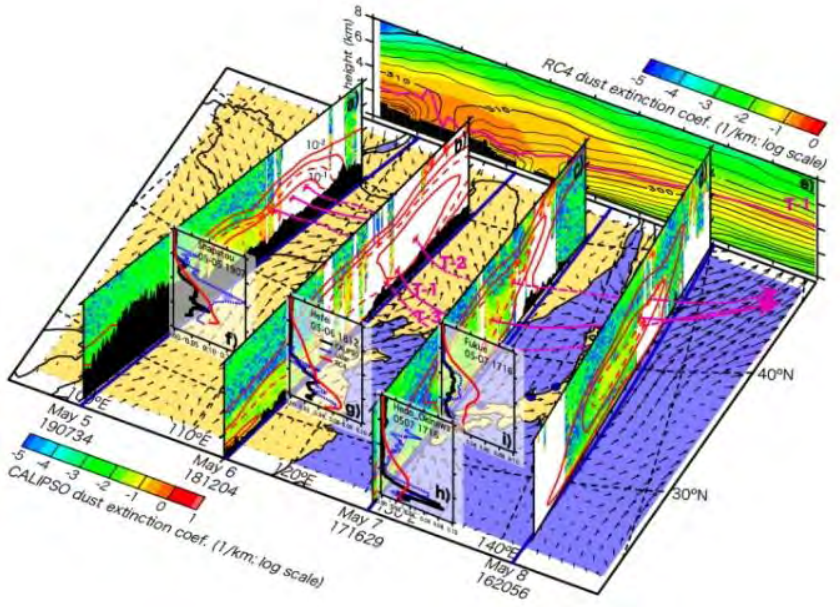
Ozone Lidar (Argentina)

Ozonesonde (Chile)



UV measurements (CL & AR)

mm-wave (Japan)



Assimilated dust transport model for Asian dust

Muchas Gracias!