# The UN/Chile Workshop on
"Space Technology Applications for Socio-Economic Benefits",
Santiago de Chile, Chile, 12-16 November 2012

## PROGRAMME

### Monday, 12 November 2012

<table>
<thead>
<tr>
<th>Morning Session</th>
<th>08:00</th>
<th>Registration</th>
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<tr>
<td></td>
<td>09:00</td>
<td>Welcome / Opening Remarks</td>
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<td>- Mr. Raúl Osvaldo Benítez, Regional Representative, Food and Agriculture Organization of the United Nations (FAO)</td>
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<td>- Dr. Eugenio González Aguiló, Executive Director, Information Centre of Natural Resources (CIREN)</td>
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<td>- Mr. Luc St-Pierre, Senior Programme Officer, United Nations Office for Outer Space Affairs (UNOOSA)</td>
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<td>- Mr. Luis Mayol Bouchon, Minister of Agriculture of Chile</td>
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|                 | 10:00 | The United Nations Office for Outer Space Affairs (UNOOSA): an overview. Mr. Levent Canturk, UNOOSA  |
|                 | 10:15 | Information Centre of Natural Resources (CIREN): an overview. Mr. Eugenio González Aguiló, CIREN  |

|                 | 10:30 - 11:15 | Coffee / Tea Break *** // *** Photo Session***  |

|                 | 11:15 | Objectives and expectations of the Workshop |
|                 |       | - Mr. Luc St-Pierre, UNOOSA  |

|                 | 11:30 | Keynote Address: Outcomes of Rio +20 and “The Future We Want”, the perspective from Latin America and the Caribbean. Mr. Carlos de Miguel, Officer in Charge, Sustainable Development & Human Settlements Division, Economic Commission for Latin America and the Caribbean (ECLAC) - United Nations.  |

|                 | 12:00 | Keynote Address: Overview of space technology applications in Latin America and the Caribbean. Mr. Felix Menicocci, Comisión Nacional de Actividades Espaciales (CONAE), Argentina (TBC)  |

|                 | 12:30 - 13:30 | 1st Session: Applications for environmental monitoring and natural resources management  |
|                 |       | Chairperson: Ms. Eliana Henríquez, CIREN  |
|                 |       | Rapporteur: Mr. Heriberto Pinto, CIREN  |

|                 |       | Geomatics as a support tool in preparing the forestry cadastre. Mr. Eduardo Martínez Herrera, CIREN, Chile  |
|                 |       | Image change detection and map updating by GIS tools. Mr. Sergey Ablameyko, Belarusian State University, Belarus.  |

|                 | 13:30 - 15:00 | *** Lunch 13:30 – 15:00 ***  |

| Afternoon Session | 15:00 – 16:15 | The implementation of the monitoring system on atmospheric pollutant released from Cuba. Mr. Alexander F. Velazquez, Delegación Provincial del CITMA de Guantánamo, Cuba  |
|                  |       | Narrowing the gap: SÍGNEO, a spatial tool to aid in forest fire risk management. Ms. Virginia Fernández Ramos, Universidad de la República, Uruguay  |

|                 | 16:15 – 16:45 | Coffee / Tea Break ***  |

|                 | 16:45 – 18:00 | Socio-economic benefits from desertification mapping using multispectral satellite imagery: Nouakchott case study. Mr. Sergey Stankevich, Scientific Centre for Aerospace Research of the Earth, Ukraine  |
|                 |       | Satellite data freely available to the study of environmental dynamics in postgraduate education. Mr. Uriel Pérez Gómez, University of Tolima, Colombia.  |
|                 |       | Leveraging GEONETCAST for disaster management applications: recent initiatives with the international charter “Space and major disasters” and the Central American flash flood guidance system. Mr. Jacob Sutherlun, NOAA/NESDIS International & Interagency Affairs, USA  |
|                 |       | NASA SERVIR Programme. Mr. Fernando R. Echavarría, US Department of States, Office of Space and Advanced Technologies  |
Tuesday, 13 November 2012

Morning Session
09:00 – 12:15

2nd Session: Applications for Food Security and Agriculture

Chairperson: Mr. Eugenio González Aguiló, CIREN
Rapporteur: Mr. Ricardo Cabezas

Development of space science and technology for wine country applications. Mr. Carlos Mena Frau, Regional Centre for Space Science and Technology, Universidad de Talca, Chile.

Desertification monitoring with multi-source datasets in semiarid region: relationship with the soil salinity spreading-case of the south of Tunisia. Mr. Riadh Abdelfattah, Higher School of Communications of Tunis, Tunisia

Optical and radar images for snowmelt forecasting in the high mountains rivers and cadastre of glaciers. Ms. Graciela Salinas de Salmuni, Comisión Nacional de Actividades Espaciales (CONAE), Argentina.

Using remote sensing and GIS technology to monitor the agricultural production. Ms. Nora Khojali, Ministry of Agriculture and Irrigation, Sudan

Operationalisation of crop forecasting and drought assessment in India using space technology. Mr. Shibendu Ray, Mahalanobis National Crop Forecast Centre, India

11:00 – 11:30

The Mexican Space Agency: an overview. Mr. Javier Mendieta, Mexican Space Agency

*** Coffee / Tea Break ***

11:30

Chilean – German research initiative: information system for natural disaster management. Mr. Richard Theis, German Space Agency (DLR), Germany

Satellite technologies for livestock and plant health in Central America. Mr. Guillermo Alvarado, Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA)

Remote sensing applications in food security – Pakistan. Ms. Saadia Naeem, Pakistan Space & Upper Atmosphere Research Commission (SUPARCO)

12:15 – 13:30

Roundtable A
Regional coordination and institutional context in Latin America and the Caribbean; Introduction with the example of Argentina and facilitation: Mr. Felix Menicocci, CONAE, Argentina

*** Lunch 13:30 – 15:00 ***

Afternoon Session
15:00

Special intervention: Statement from the meeting of space agencies (12/11/2012, Santiago de Chile). Mr. Fermín Romero Vázquez, Ministry of Foreign Affairs, Mexico

2nd Session (cont’d)

15:30

Use of the teledetection methods in agriculture: experience of Comité Nord, the organization of the seed potato growers of the north of France. Ms. Anne Ponce De Léon Iglesias, Comité Nord/SIPRE, Station de Recherche du Comité Nord, France.

Agricultural management and satellite information of the plains region in Tucamán, Argentina. Mr. Federico José Soria, Estación Experimental Agroindustrial Obispo Colombres (EEAOC), Argentina

Using space technology in precision agriculture. Ms. Priscila Carrasco Molina, CIREN, Chile

16:45

End of 2nd Session

16:45 – 17:00

*** Coffee / Tea Break ***

17:00 – 18:30

Roundtable B
Capacity building in the use of space technology for Latin America and the Caribbean, focusing on their application in different areas of the regional economy. Introduction and facilitation: Ms. Tania María Sausen, Centro Regional de Enseñanza de Ciencia y Tecnología del Espacio para América Latina y el Caribe (CRECTEALC), Campus Brazil and Mr. Sergio Camacho, CRECTEALC, México.
**Wednesday, 14 November 2012**

9:00 – 18:00  
**Visit to Viña del Mar and Valparaiso** *(informal dress code)*  
- Visit to the Servicio Hidrográfico y Oceanográfico de la Armada de Chile (SHOA)  
  [http://www.shoa.cl/index.htm](http://www.shoa.cl/index.htm)  
- Lunch  
- Tour

**Thursday, 15 November 2012**

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<th>Morning Session</th>
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| **ISPRS Tutorial**  
The tutorial is designed to provide some basic information to participants who are users of Earth Observation (EO) data, rather than remote sensing specialists and to provide in depth case studies in two specialist areas to demonstrate how Earth observation can generate socio-economic benefits. The tutorial will be adjusted according to the background of the participants.  
- Sources of data  
- Basic processes  
- Limitation/advantages  
- Case studies of remote sensing as applied to natural and cultural protected areas  
- Case studies in air quality  
- Case studies in agriculture and forestry  
  - **Mr. Stan Morain**  
  - **Mr. Ian Dowman, Mr. Mario Hernández, ISPRS**  
  - **Mr. Mauricio Galleguillos (University of Chile)** |

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<th>Afternoon Session</th>
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| **Roundtable A and Roundtable B** *(cont’d and simultaneous)*  
**Conclusion and drafting team** |

***Lunch 13:30 – 15:00***

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| **3rd Session: Spatial Data Infrastructure and Socio-Economic Benefits**  
**Chairperson:** Ms. Graciela Salinas de Salmuni, CONAE  
**Rapporteur:** Mr. Christian Barbier |

Opportunities for international and regional cooperation in Earth observation.  
**Mr. Ian Dowman, Past President (ISPRS)**

Using Chilean satellite images in Earth sciences and their impact on the local economy.  
**Mr. Ricardo Cabezas Cartes, CIREN, Chile**

Designing ecological houses in Ecuador from regional climatic and socio-economic parameters and with the assistance of geographic information system.  
**Mr. José Luis Rivadeneira García, Instituto Espacial Ecuatoriano (IEE), Ecuador**

Resources and capability building for space applications in Thailand.  
**Mr. Prawit Chertchom, Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand**

Space technology: advancing skills in Uganda.  
**Mr. Stefano Colafranceschi, Group of Astrodynamics for the Use of Space System (GAUSS)**

***Coffee / Tea Break***

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| The CEDIZ (Certificado Digital de Zonificación) platform: geospatial tool for the public Management  
  **Mr. Juan Fernando Acuña Arenas, CEDIZ, Chile** |

Spatial data infrastructure, Ministry of Agriculture of Chile.  
**Ms. María Graciela Barrera Viedma, CIREN, Chile.**

The spatial data infrastructure of the Estado Plurinacional de Bolivia (ide-epb): status and perspective.  
**Mr. Raúl Fernando Molina, Vicepresidencia del Estado, Bolivia**

The reconstruction process of coastal cities in the Biobío region: sustainability, social participation and resilience.  
**Mr. Ivan Cartes, Universidad del Bio-Bio, Chile**
Morning Session
09:00 – 11:00

4th Session: Applications for Disaster Risk Reduction and Emergency Response

Chairperson: Ms. Agnieszka Lukaszczyk
Rapporteur: Ms. Natassa Antoniou

The United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER). Mr. Luc St-Pierre (UNOOSA)

Data policies in support of climate change and disaster management application. Ms. Natassa Antoniou, Secure World Foundation (SWF), Belgium

Satellite data applications in monitoring disasters - Pakistan. Mr. Badar Ghauri, Institute of Space Technology, Pakistan

Advanced synthetic aperture radar (SAR) processing for resource monitoring and disaster management. Mr. Christian Barbier, Centre Spatial de Liège, Belgium

Geotechnologies for natural disasters and the capacity building in Latin America and the Caribbean. Ms. Tania Maria Sausen, CRECTEALC and INPE, Brazil

Lessons learned in Guatemala as a developing country to enter space research and technology development: future goals and challenges. Mr. Willy Cabañas, President of Central America Association for Aeronautics and Space and General Manager of Astrotechnologies (ASTROTEC) Guatemala

End of 4th Session

11:00 – 11:30

***Coffee / Tea Break***

11:30 – 13:30

PANEL: Gender equity in space sciences; from providers to decision makers and end users
Ms. Vanesa Bravo Rodríguez, Mr. Álvaro Neira Flores, Ms. Agnieszka Lukaszczyk and Mr. Luc St-Pierre

***Lunch 13:30 – 15:00***

Afternoon Session
15:00 – 18:00

Joint report from the round tables: Ms. Tania Maria Sausen, Mr. Sergio Camacho and Mr. Felix Menicocci

Wrap Up Session: Review of the Workshop, approval of recommendations and discussion on future activities.
Chairperson: Mr. Luc St. Pierre

Workshop Review and Way Forward – All Participants

Closing Ceremony
Master of Ceremony: Mr. Eugenio González

Closing Remarks:
- CIREN, Mr. Eugenio González Agüillo
- ISPRS, Mr. Ian Dowman
- SWF, Ms. Agnieszka Lukaszczyk
- UNOOSA, Mr. Luc St-Pierre

17:00 Adjourn