



UNOOSA/Peru/ Switzerland/ESA
Workshop on Integrated Space Technologies Applications for
Sustainable Development in
the Mountain Regions of Andean Countries

Organized by United Nations Office for Outer Space Affairs, and Comision Nacional de Investigacion y Desarrollo (CONIDA) on behalf of the Government of Peru.
 Lima, 14-18 September 2009

OUTLINE PROGRAMME

Monday, 14 September 2009 OPENING SESSION

- Registration
- 9:00 – 10:00** Opening session (10' presentation)
Victor Kotelnikov, Office for Outer Space Affairs, United Nations
Juan Felix Enrique Pasco Barriga, Director General, CONIDA
Miguel Saravia, CONDESAN
Jean Charles Bigot, ESA
Natalia Archinard, Switzerland
 CONIDA : Organizational matters
- 10:00 – 10:30** **Coffee Break**
- SESSION I** **ANDEAN REGION: GENESIS&SPACE TECHNOLOGY: FROM MENDOZA TO LIMA**
- 10:30 – 12:15** Keynote Presentations (7x 15' presentation)
 Chairperson: *P.C. Sandei*
1. Keynote address: An overview of the tropical Andes *M. Saravia (CONDESAN)*
 2. Partnerships for Monitoring Global Changes in Mountain Regions *P.C. Sandei (UNEP)*
 3. The EO and applications in Mountains Regions *F. Sarti (ESA)*
 4. Andean Region Cooperation related to Mountains *F. Menicoci (CONAE)*
 5. CONIDA presentation *Representative of CONIDA*
 6. Monitoring of particulate matter with satellite data and his effects on health in the mountain region of the Alps *M. Petitta (EURAC)*
 7. Statement *Amb. Ciro Arrevalo (COPUOS Chairman)*
- 12:15 – 14:00** **Lunch**
- 14:00 – 14:30** Keynote Presentations (2x 15' presentation)
 Chairperson: *F. Sarti*
7. Spot Image and applications *(Spot Image, Peru)*
 8. HimalAndes Initiative *A. M. Ponce*
- Geographical information systems as a tool for agricultural and natural resources science *A. Jarvis (CIAT)*
 Access to spatial technology from periferical provinieses *M. Guzman, (UGICH, Jujuy, Argentina)*
- SESSION II: NATIONAL PRESENTATIONS**
- 14:30 – 15:30** (3x 20' presentation)
 Chairperson: *M. Saravia*
1. National Presentation related to Mountains (Bolivia)
 2. Estimation of vulnerability in forests in Chile *Y. Ponce (Chile)*
 3. National Presentation (Colombia)
- 15:30 – 16:00** **Coffee Break**
- 16:00 – 17:30** (4x 20' presentation)
 Chairperson: *M. Saravia*
4. National Presentation (Ecuador)
 5. National Presentation (Peru)
 6. National Presentation (Venezuela)
 7. Monitoring land cover change for the entire continent using MODIS *R. Ressler (Mexico)*



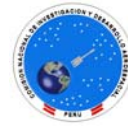
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Tuesday, 15 September 2009

SESSION III CLIMATE CHANGE AND MOUNTAIN HAZARDS

8:30 – 10:00 (4x 20' presentation)

Chairperson: *Ch. Steurer*

1. Climatic Change in the Andean Region *A. Jarvis (Peru)*
2. Climatic Change in Peru *E. Calvo (IPCC)*
3. Spaceborne optical remote sensing of snow and glaciers in mountain regions *K. Casey (Norway)*
4. Early detection and monitoring of movements in mountain regions using InSAR images *C. Collet (Switzerland)*

10:00 – 10:30 **Coffee Break**

10:30 – 12:00 (4x 20' presentation)

Chairperson: *Ch. Steurer*

5. Climatic research in the Andes *IRD (France)*
6. Detection and dating of spatio-temporal activity of natural hazard processes in mountain environments *C. Collet (Switzerland)*
7. UV radiation and skin effects *M. Blumthaler (Austria)*
8. Radar applications for mountain hydrology and glaciology *F. Mueller (ENVEO, Austria)*

12:00 – 14:00 **Lunch**

FOLLOW UP MENDOZA WORKSHOP 2007

14:00 – 14:20 (1x 20' presentation)

Chairperson: *C. Collet*

1. Follow up activities of the Workshop on sustainable development in mountain areas held in Mendoza in December 2007 *G. de Salmuni (CONAE)*

SESSION IV: HYDROLOGY

14:20 – 15:30 (3x 20' presentation)

Chairperson: *C. Collet*

1. Andean panorama of the Hydrological Environmental Services *B. de Bievre (CONDESAN)*
2. Remote sensing applied to: Water cycle - including permafrost, land use, erosion, and global climate change *E. Chacón (ICAE)*
3. Multitemporal study of glaciers in Hielo Continental Patagónico *G. Gari (CRS-FAA)*

15:30 – 16:00 **Coffee Break**

SESSION V: NATURAL RESOURCES

16:00 – 17:30 (4x 20' presentation)

Chairperson: *C. Collet*

1. Ground motion monitoring applied to mining industry using radar satellite imagery *A. Urdiroz (ALTAMIRA INFORMATION)*
2. High spectral resolution satellite images applied to mineralization recognition *M. Diaz (CONIDA)*



Wednesday, 16 September 2009

SESSION VI: AGRICULTURE

8:30 – 10:00 (4x 20' presentation)

Chairperson: *B. de Bievre*

- 1. Land Use and Cover Change in the Andean region *F. Cuesta (CONDESAN)*
- 2. Climate Change and Potato-based Systems *R. Quiroz (IPC)*
- 3. Planes de Manejo en Paramos - Paramo Andino regional project *M. Peralvo (CONDESAN)*
- 4. Daily evapotranspiration assessment using remote sensing techniques in Northern Peru *R. Sanabria (CONIDA)*

10:00 – 10:30 **Coffee Break**

SESSION VII: PROTECTED AREAS & NATURE CONSERVATION

10:30 – 12:00 (4x 20' presentation)

Chairperson: *B. de Bievre*

- 1. Monitoring biodiversity losses by Climate Change in the Andes *M. Peralvo (CONDESAN)*
- 2. North and Central Andean Ecosystems Map *F. Cuesta (CONDESAN)*
- 3. Toward a national forest monitoring system using remote sensing *C. Villon (CONIDA)*

12:00 – 14:00 **Lunch**

SESSION VIII: EDUSPACE

14:00 – 17:30 Chairperson: *Juerg Lichtenegger*

- 1. Eduspace and about the Announcement of Opportunity *J. Lichtenegger*
- 2. EURAC Junior project as a best practice for work with the ESA Tool Leoworks *Ch. Steurer (EURAC)*
- 3. Teaching of remote sensing and space science for secondary school teachers *J. Pacheco (CONIDA)*

5 to 10 short presentations of ideas of educational material using Earth observation data for secondary schools, presented by scientists and educators of the Andean region

Thursday, 17 September 2009

SESSION IX: WORKING GROUPS

8:30 – 10:00 Plenary Session: Constitution of Working Groups

Chairperson: *V. Kotelnikov*, Co-Chairperson: *G. Salmuni*

Working groups will be formed to analyze the subjects proposed in the invitation to the Workshop in order to define project proposals in the following topics:

- I Hydrology
- II Agriculture
- III Natural resources
- IV Protected areas & Nature conservation
- V Natural hazards and sustainability

10:00 – 10:30 **Coffee Break**

10:30 – 12:00 Group Session: Working Groups Workshop 1

12:00 – 14:00 **Lunch**

14:00 – 14:30 Group Session: Working Groups Workshop 2

14:30 – 15:30 Group Session: Working Groups Workshop 3

15:30 – 16:00 **Coffee Break**

16:00 – 17:30 Plenary Session: Wrap up Session

Chairperson: *Victor Kotelnikov*

SESSION X: CLOSING SESSION

17:30 – 18:00 Closing remarks



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Chairperson: *Victor Kotelnikov*

1. UNOOSA
2. Peru
3. Switzerland
4. CONDESAN
5. ESA

V. Kotelnikov
CONIDA
C. Collet

Friday, 18 September 2009

Field Trip: visit to be determined (CONIDA)
Lima City Tour (full day or half day)