

Laboratory for Atmospheric Physics (LFA) at UMSA, La Paz, Bolivia

WHO Collaborating Centre

Activities and outcomes in 2012-2013

1. Domestic activities

Despite no longer receiving financial support from PAHO local office since 2012, the following activities were performed:

- Monthly press releases informing about topics of UV campaign.
- Several conferences at schools, Universities and others institutions, at La Paz and other cities in Bolivia
- Research projects, data collection by our instruments (radiometers and spectrophotometers) at La Paz (3600 m asl) and Chacaltaya (5300 m asl) have been continued. A 17-year database is available to the scientific community
- Research projects prepared and submitted by colleagues of other institutes have received assessment and scientific support from LFA
- Support to governmental and local institutions in topics related to the UV radiation is provided on a permanent basis by LFA

Main outcomes:

- Police officers working outdoors are wearing wide-wing hats as part of their official uniform. As a matter of fact the whole uniform has been taken over to accomplish of UV radiation levels.
- Most of the kindergarten schools of a district of La Paz have been visited and their personnel as well as children and parents have been trained in photo-education topics
- After several years of “pressure” by our laboratory and OPS local office, a National Cancer Register has been established by the Ministry of Health. Results of the year 2011 are currently available and more data are expected to become part of this database in the future.
- LFA gave technical support to the Health Ministry and regional health institutions with respect to the legal Regulation of sunbeds, whose use is increasing in Bolivia. The Governor of Santa Cruz has already passed a law of regulation about this issue.
- LFA suggested and supported the project “Vinos de altura” (Wine at high altitude) developed at University of Tarija. The project is investigating the high content of

“Resveratrol” found in wine produced at more than 1500 meters asl due to the high levels of UVB. Resveratrol is an organic compound that has been associated with the lack of gastro diseases in people that drink red wine on a regular basis (i.e. French people).

- Four thesis at Department of Physics and three papers published on *Revista Boliviana de Física* are part of the goals of the past year.
- The subject “Solar Radiation” is now part of the syllabus of a postgraduate course at the local Department of Physics.

2. International activities

- ✓ A Technical Cooperation between Countries (TCC) Project has ended satisfactorily for both countries, Bolivia and Ecuador. LFA provided training and scientific support to Ecuadorian institutions in the UV area, and Solca-Quito supported the Bolivian Ministry of Health in starting the National Cancer Register at La Paz

3. New projects for the current year

- To put color light (“**SOLMAFOROS**”) on streets of La Paz giving alert about the UV Index in real time, as a cooperation of a private bank (Sun Bank!), the Municipality of La Paz, PAHO-Bolivia and LFA.
- To design an instrument to easily measure the efficiency of sunglasses in blocking the UV radiation (as a thesis work)
- Research on optical properties in the UV band of the huge salt lake of Uyuni in order to investigate possible links of these properties and climate change in the region.
- Training of students and colleagues of other Universities in order to perform the UV campaign in their cities, due to the lack of financial support for this task. We will start with the cities of Santa Cruz, Cochabamba and Tarija.

La Paz, May 2013