

**COMLAND Report on the “International Workshop on Environmental Changes and Sustainable Development in Arid and Semi-arid Regions”, including Post-conference Excursion**

**Alashan Left Banner, Inner Mongolia, China**

Preconference field trip: 7 - 9 September, 2007

Conference: 10 - 17 September, 2007

**Organizer**

Professor Xiaoping Yang, Geology and Geophysics, Chinese Academy of Sciences, Beijing

Conference web site: (<http://www.iggcas.ac.cn/iw07/index.htm>)

1. Workshop from 10. Sept. 2007 to 13. Sept. 2007

The workshop took place in the XXX Hotel in Alshan Left Banner, Inner Mongolia, China. 83 scientists from 18 countries contributed with outstanding keynote presentations (i.e. from A Goudie, President of the IAG) 43 oral presentations and 16 posters to the success of the meeting. It is planned to publish a selection of papers in international recognised journals. One of the central questions in the program of the conference was the identification of Holocene climate variability and the research on the causes and dimension of increasing aridification in northwest. China. As the workshop location the regional focus of the majority of these studies was located in Inner Mongolia and combined classical geomorphologic approaches with geochemical- and dating methods. However, the question about conclusions of such research results for the increasing anthropogenic accelerated degradation was unanswered.

Another focus of the conference was the characterisation of environmental processes in semi-arid desert margins with examples from North America, southern Africa and central Asia. The coupling of vegetation patterns and soil water dynamics and soil crusting was especially discussed. Furthermore, a number of presentations dealt with land degradation in various climate regions which reached from Iceland to Thailand and aside environmental aspects also revealed to the social causes and consequences.

Overall, the presentations and the posters, that were accessible during the entire workshop time, were discussed intensively. The half day excursion which was embedded in the meeting explained the differences in natural environments in the surrounding of the workshop location. It was guided to the Helan mountains, where sense and possibilities of afforesting measures were discussed and into an active due field with exposed prehistoric relicts at the margin of the Tenggeli desert.

## 2. Post conference excursion from 14. Sept. 2007 to 17. Sept. 2007

The field trip was divided in the travelling through the Gobi desert from Alashan Left Banner to the Badain Jaran sandy desert and travelling back of each one day. The scientific focus was concentrated on the two central days in the difficult accessible Badain Jaran sandy desert itself.

Highlights of the very well organised and scientific valuable field trip were the

- complex alluvial fan system of the Yabulai mountains
- Yabulai salt lake
- climbing a mega dunes of the Badain Jaran sandy desert
- Shaoban lake (changing coast line, development of two separated basins with increasing salinity)
- morphologic development of Mega dunes and potential crystalline basement
- Dundejilin dune (crusts and fossil soil development as humid climate)
- Dundejilin lake (sinter deposits as indicator of sweet water well)
- Shuanghaizi lake (hypersalinity, changing coast line, anthropogenic utilisation)
- Yikeliaobao (fluvial sediments und crystalline basement as basis of mega dunes)
- remnants of Neolithic settlement as climate indicator

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