

COMMISSION REPORT 2008-2012

C04.24 Commission on Land Use and Land Cover Change

1. Membership

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Unfortunately, dr. Sergey Ganzei, vice-chair of IGU LUCC commission, sorrowfully passed away in 2011. We lost dear colleague and great researcher... He was one of key members of steering committee and e. g. one of the most splendid IGU LUCC conference – in Vladivostok 2009 – was organized under his supervision and with great success... We will miss him forever.

Members: 251 (53 countries/regions), as of 31 December 2011

Australia	3	Austria	4	Bangladesh	2	Belgium	1
Brazil	1	Brunei	1	Canada	7	Chile	1
China	25	Colombia	1	Czech Republic	14	Denmark	1
Ecuador	1	France	3	Finland	3	Germany	5
Ghana	2	Hong Kong	2	India	22	Indonesia	3
Iran	1	Ireland	2	Italy	2	Jamaica	1
Japan	43	Korea	6	Laos	1	Mexico	2
Malaysia	2	Mongolia	3	Nepal	1	Netherlands	2
New Zealand	3	Nigeria	3	Pakistan	2	Palestine	1
Philippines	1	Poland	2	Portugal	12	Romania	1
Russia	7	Singapore	1	Slovenia	2	Slovak Republic	2
South Africa	5	Spain	3	Sri Lanka	3	Sweden	2
Switzerland	2	Taiwan	2	Ukraine	2	U.K.	10
U.S.A.	17						

Unfortunately, these numbers can be slightly incorrect. Some members of commission are not already active, some of them have changed e-mail addresses and all contacts, so it's not possible to contact them anymore... Our suggestion is to rebuild this members list by new registration of interested members during IGC Cologne 2012 and after congress via web form.

2. MEETINGS

2008:

IGU LUCC commission activities were divided into two parts during **International Geographical Congress in Tunis 2008**: (1) pre-congress meeting including a field trip and (2) a scientific program during congress. Pre-congress meeting was organized by IGU LUCC steering committee together with local organizers. Along with discussions about LUCC agenda and forthcoming activities in 2008-2012, several interesting papers were presented, followed by a fruitful discussion. The

meeting continued with 3-days excursion in areas where different Tunisian land use problems was presented. Thanks to excellent comments by local researchers, there were analyzed e.g. problems of traditional Tunisian agriculture and problems connected with modernised economy as well. Thanks to the local organizers, the excursion and meeting were very well organized; all participants of the pre-congress meeting were very satisfied. After the pre-congress meeting, activities of IGU Lucc commission continued during the congress. There were presented 24 papers in 5 sessions. Many scholars from all over the World presented and discussed their papers and they significantly contributed to a high quality of all IGU Lucc activities.

Members of IGU Lucc commission visited **PECSRL 2008**. PECSRL (**Permanent European Conference of the Study of the Rural Landscape**) was organized by Lusofónia University in Lisboa (Portugal) between August 31 and September 7 2008. The conference was held for the 23rd time. 350 scholars from different professions involved in discussions on development of rural landscape in the dynamic global World participated in the event. Organization of the conference was excellent. The participants had an opportunity to spend two days in Lisboa, two days in Óbidos, and to attend a one-day field trip). All researchers expressed a big interest into the plenary sessions and about forty thematic sessions. There was enough time both to present the papers and to discuss it consequently. Surprising and very positive was a huge participation of young researchers. Quality of papers there was generally higher than in Tunis.

IGU Lucc regional Prague meeting – on November 27 to 30 2008 – was organized by IGU Lucc commission in cooperation with Charles University in Prague (Faculty of Science). A seminar on November 28 constituted the main part of this meeting. It was visited by both foreign (prof. Feranec, Slovakia, prof. Balteanu, Romania, prof. Ganzei, Russia) and Czech researchers. A fruitful discussion after each paper resulted in discussions about including these papers into Atlas of World Land Use, Volume V. Besides the main seminar, there were also organized three business meetings with members of the steering committee, and one excursion. During these meetings, there were discussed organizations of commission activities for next four year. The agreed process will be more specified during the EUGEO Bratislava Conference (August 13 to 16 2009), where a commission meeting for European members will be organized. Support and guarantee of this seminar will be realized by prof. Feranec. There was also discussed the structure and content of IGU/Lucc North East Asia Conference 2009 in Vladivostok, Russia. Conferences and meeting for the year 2010 were discussed as well. There were two planned meetings in 2010 – IGC congress in Tel Aviv (the steering committee will organize a pre-congress meeting for IGU Lucc members); the second meeting in 2010 was planned in Bucharest, Romania. All information were placed on Lucc commission website. One of the main activities of the commission – publishing next volumes of the Atlas of World Land Use – was broadly discussed and as a result, there were scheduled next procedures to each atlas paper. Some of the papers already obtained were recommended to enlargement of graphical sections (D. Carr, Santa Barbara, USA, E. Milanova, Moscow, Russia).

2009:

Seminarium called **22nd Czech – Poland - Slovak seminarium, 1.–5. 6. 2009**, was realized in Prague and in countryside of Central Bohemia as 22nd meeting of geographers from Slovakia, Poland and Czechia. This traditional meeting was organized also for presentation of Lucc topics. There were realized also two sessions oriented on the regional development of rural space in these countries. Second session was oriented on the land use and land cover changes in Middle Europe.

EUGEO (**Second International Congress on the Geography of Europe, 13.-16. August 2009**) in Bratislava, Slovakia was 2nd meeting of geographers focused on geographic problematics in Europe. One important part of this conference was special meeting of land-use/land cover change researchers. Lucc section has three sessions (altogether 15 papers). Next three papers were presented also at Geographical institute of Slovak Academy of Sciences; there were also discussed next activities of Lucc in Europe. One part of this conference was excursion into Trnava region focused on problems of suburbanization and significant decrease of arable land in Slovakia.

Main conference of IGU Lucc commission in 2009 was called **Land Cover and Land Use Changes in North East Asia: Problems of Sustainable Nature Management, 6.-12. September 2009, Vladivostok (Russia)**. Conference was organized by Russian Academy of Science (Far Eastern Branch , Pacific Institute of Geography), especially by Dr. Sergey Ganzei and his collaborators. About 80 researchers participated (mainly from Russia, but also from China, Japan, Korea, Australia, Czechia, Slovakia etc.). Except papers researchers participated also in field-trip, focused on problems of transformation of Russian Far East and its impact on land-use.

2010:

Faculty of Science, Charles University in Prague, Czech Republic, and Faculty of Science, J.E. Purkyně University in Ústí nad Labem, Czech Republic were main organizers of conference **Land Use and Land Cover Changes in a Globalised World** which was held in **June 28th – July 1st 2010 in Prague**. The conference was focused on land use, landscape and countryside mainly in Europe. Some 35 persons took part and realized 26 themes from eight topics above on this Conference in two days in Prague. Then the following excursion was organized to Northern Bohemia with cooperation of the Faculty of Science, UJEP University in Ústí nad Labem. Excursion gave a chance to see and discuss some problems of land use changes and development as in agricultural areas, as in open mines territory with huge recultivation. Some topics were prepared for publication in *Acta Universitatis Carolinae – Geographica*, some other in *Atlas*, Volume V.

The International Geographical Union (IGU) realized **Regional Conference in Tel Aviv**, Israel, July, 12-16, 2010. The IGU Commission on Land Use and Cover Changes realized three sessions on which were presented 14 papers from 10 countries. Also business meeting during the conference was realized on which participated also 4 members of the Lucc Commission. Some members of IGU/Lucc Commission also participated in preconference meeting and excursion realized by Commission on the Sustainability of Rural Systems, July, 6th - 12th. Also during two days seminar there were presented some topics concerned on Lucc problems.

The **IGU Commission seminar on Land Use, Biodiversity and Climate Change** was organized by Department of Geography, Cotton College in Guwahati, Assam, India, on 11- 13th December, 2010. Cotton College, established in 1901, has been rendering its service to the entire North East India for last 109 years and producing numerous luminaries, placed across the world today. As Dr. Muhfaza wrote in her paper for IGU E-Newsletter, 2011: "The Cotton College as an institution that pursues and promotes academic excellence and scholarship has achieved many milestones in 109 years, and the Geography Department on completion of its fiftieth year have the privilege to hold a IGU Commission Seminar on 'Land Use, Biodiversity and Climate Change'".

The main theme of seminar was Land use, Biodiversity and Climate Change with Sub Themes: Population and Land use, Changing Human values and impact on Environment, Biodiversity and

the Himalayas, Man Animal Conflict, Land use Change and Wetlands, Development Change and Human Health, Urban Development and Land use Change, Land use and Climate Change, Integrated River Basin Development, Sustainable practices in the Globalize world and Geo-informatics in Land use and climate change.

In December 20-21 there was hold international seminar “**New Approaches in Land Cover/use Change Research**” in Prague, Faculty of Science. There were presented 12 topics for some 25 participants. Seminar was prepared by IGU/LUCC Commission and Project GEO Network for Capacity Building (GEO-Net-CaB). This event was successfully used also for preparing some deeper contacts and collaboration among Middle European specialists with NASA and American universities.

2011:

The International Geographical Union (IGU) realized **Regional Conference in Santiago de Chile**, Chile, November, 14-18, 2011. Except research papers (22 papers were presented) members of IGU LUCC steering committee had business meeting where they discussed about commission’s activities. Meeting participants also briefly evaluated regional conference in Santiago de Chile from the IGU LUCC commission point of view:

- a. Participation of researchers from Latin America was indisputably very fruitful, it documents abilities of Latin America researchers to join commission activities more closely;
- b. LUCC topics are most frequented from all conference papers;
- c. LUCC sessions were diverse and with high quality of most papers; most part of papers is suitable for scientific publishing; we think about call on participation on next volume of Atlas of World Land Use, Volume VIII;
- d. Two languages with simultaneous translation were very good experience in the point of view of future regional conferences. We recommend that interpreters could have at least papers abstracts to be prepared for new special terms.

2012 – forthcoming meetings:

- 1) In Santiago de Chile IGC Prof. Chauhan suggested that next commission meeting should take place in conference in **India**, where land-use topics are deeply studied and also number of participants could be higher in comparison with Cologne because of considerably lower costs for researchers from Asia. Conclusion was that prof. Chauhan will organize this conference after agreement with commission head prof. Bicik.
- 2) **XV. International Conference of Historical Geographers** will take place in **6-10 August 2012**, Charles University in Prague. IGU LUCC Commission would guarantee one section with four papers. Prof. Bicik suggests that there would be suitable to represent different results of historical land-use focused probably on Central Europe.
- 3) **32nd International Geographical Congress in Cologne**, Germany, **August 26-30, 2012**. Except land use/land cover papers in three sessions the members of commission will discuss next work and new members of steering committee.

3. Networking

Collaboration with other IGU Commissions and Task Forces

The Commission cooperated in last years partly with **IGU Sustainability of rural systems commission**; several colleagues participated on meeting in Israel (IGC, Tel Aviv, 2010) and also on field excursion after IGC in Tel Aviv. In 2011 we presented land use problematic on 19th Annual Colloquium of this commission in Gallway (Ireland). Next meeting of Sustainability of rural system commission is preparing in Prague (Czechia) in cooperation with Faculty of Science (Charles University in Prague). IGU LUCC commission also narrowly cooperated with Tel Aviv (2010) and Santiago de Chile (2011) IGU congress organizers because of preparing of meetings and land use sessions. In Santiago de Chile the land use/land cover problematic was one of the most frequented topics (22 papers).

Collaboration with other international and inter- and multi-disciplinary groups

The Commission cooperates with regional and national research communities of land use/cover changes, including those in East and Southeast Asia and Europe. In 2009 there was realized conference in Vladivostok (Russia) in cooperation with **Russian Academy of Science** (Far Eastern Branch, Pacific Institute of Geography about 80 participants, especially from Far East). Some members of commission regularly participate on ESEH activities (**European Society for Environmental History**), land use themes have become one of the key topics in ESEH meetings. In Central Europe there is good cooperation with **universities** in Prague (Czechia), Bratislava (Slovakia) and Warsaw (Poland). For example in 2009 there was organized conference EUGEA there were three special land use sessions, after that there was also meeting in **Institute for Geography of Slovak Academy of Sciences**. Another seminar in Prague (2010) was organized by our commission, Faculty of Science (Charles University) and **project GEO Network for Capacity Building**. In 2010 there was also The IGU Commission seminar on Land Use, Biodiversity and Climate Change which was organized by **Department of Geography, Cotton College in Guwahati**, Assam, India. From other cooperating institution we can mention **NASA** (LUCC seminar in Prague).

Cooperative efforts with ISSC and with ICSU programs

4. Publications

Newsletters, books etc.

- Newsletter No. 11 (2009)
- Newsletter No. 12 (2010)
- Newsletter No. 13 (2011)
- Newsletter No. 14 (2012)
- HIMIYAMA, Y., MATHER, A., BIČÍK, I., MILANOVA, E., V. (eds., 2010): Land Use / Cover Changes in Selected Regions in the World, Volume I – IV, Combined edition, IGULUCC Research Reports, IGU-LUCC, Asahikawa, Japan.
- HIMIYAMA, Y., BIČÍK, I., FERANEC, J. (eds., 2010): Land Use / Cover Changes in Selected

Regions in the World, Volume V. IGU-LUCC Research Reports, IGU-LUCC, Charles University in Prague.

- HIMIYAMA, Y., BIČÍK, I. eds. (2012): Land Use / Cover Changes in Selected Regions in the World, Volume VI. IGU-LUCC Research Reports, IGU-LUCC, Charles University in Prague.

Period's publications

The Commission has been extremely active, and successful, in publication. The above list only shows those that have been published by direct involvement of the Commission. The number of publications by each member far exceeds it.

Commission's website:

www.luccprague.cz

5. Archival Contributions

LUCC Program 2008-12

Newsletters

Newsletter 11, May 2009

Newsletter 12, May 2010

Annual Reports

Report 2009

6. Continuation

The Commission wishes to continue its mission as an IGU commission.

Name of Commission:

Unchanged

Concise Statement of the Commission's Mission

The Commission continued its mission as an IGU commission in order to enhance research on land use/cover change in general, and in particular to contribute to the IGBP/IHDP LUCC Programme and to the IGBP/IHDP GLP Project. The Commission has been successful in forming a large international research community to support LUCC, and it will be further developed to support GLP. Geographers can, and should, make a variety of contributions to these important international environmental projects from both natural science and socio-economic perspectives. The Commission will use not only its own network and symposia but also its expertise for the promotion and advancement of GLP.

New Members of the Steering Committee

Some of old members of committee will continue. New candidates for committee in 2012-2016 will be suggested in the spring 2012. Precise composition of steering committee will be discussed during IGC Congress in Cologne 2012.

Work Plan for 2012-2016

Major types of activity:

a. The Commission plans to hold at least **one open symposium every year** in different parts of the world. It is regarded as essential to establish ongoing work so that these regional conferences are seen as the culmination of continuing efforts, and not merely as isolated occasions. Meetings of IGU LUCC commission will be also parts of IGU congresses.

b. Meetings with macroregional effect focused on LUCC problematic of different world regions. Most of participants will take place from given macroregion, but also researchers from other parts of the world will be welcomed.

c. Publishing of next volumes of atlas Land Use / Cover Changes in Selected

Regions in the World. Until now five volumes had been published, Volume no. 6 is prepared nowadays. Publishing of these atlases enables to prepare interesting regional analyses of land use and land cover development in different world regions. It is printed on big format and in colour.

d. Preparing and publishing of special publications as results of international and national meeting focused on LUCC topics, organized or co-organized by IGU LUCC commission.

e. Organization of expert reviews of papers in international research magazines.

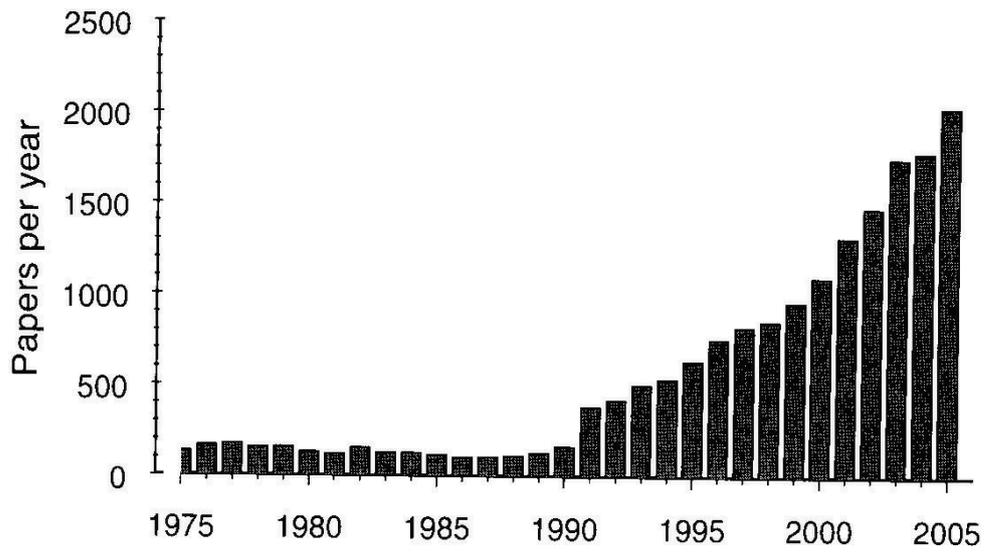
f. Other informal support in LUCC studies.

Scholarly Importance of the Anticipated Results of the Commission's Work

The Commission has organized or sponsored several open symposia and conference sessions/excursions since IGC 2008 Tunisia. These and other publishing activities helped greatly the formation and networking of regional land-use/cover change research communities, particularly in Asia-Pacific and Europe, stimulated the production and use of related historical databases/maps, and promoted regional and comparative studies. Thus, the Commission had been making notable scholarly contributions to the IGBP/IHDP LUCC Programme, and will continue to contribute to its successor The Global Land Project.

Also, one of the key topics of contemporary research is landscape and its changes. It is researched not only by geographers, but also by scientists from other fields of study, for example historians. In the last two decades of 20th century there was also formed term historical (or also dynamic) land use. We can observe increase of papers and contributions focused on land use changes in the last 35 years. Aspinall (2006) presented in the newly established Journal of Land Use Science rapid growth of number of papers, where term „land use“ is keyword or is present in abstracts cited on ISI Web of Science (fig. 1). Within International Geographic Union the Land Use/Cover Change (IGU LUCC) commission has long history with distinct influence of Czech authors. Most papers agree that society is one the driving forces in nature changes and the key role is played by growing number of Earth inhabitants and especially increase of their consumption.

Fig. 1: Increase of publications focused on land-use in 1975-2005.



Source: Aspinall (2006)