



C.V. IN SUMMARY, Professor emeritus Ulf Helldén

Borne: October, 1945 Uddevalla, Sweden

Residence: Vegagatan 15, S-224 57 Lund, Sweden.

Civil status: Married, 2 children borne 1981 and 1983

Present position: Professor, Department of Earth and Ecosystem Sciences, Lund University.

Phone: INT + 46 46 222 8696, **Fax :** INT+ 46 46 222 0321. **E-mail:** Ulf.Hellden@nateko.lu.se

Academic titles/exams

- 1969: B.Sc. Lund University (160 p): Quaternary Geology (40p), Geography (Human, Social, Economic Geography & Physical Geography) (60p), Mineralogy and Petrology (20p), Paleontology and Historical Geology (20p), Pedagogy (20p).
- 1974: Ph.D. Physical Geography, Lund University. Geomorphology, hydrology and chemical erosion in limestone areas in different climates (N. Sweden, Czechoslovakia, Spitzbergen)
- 1979: Associate Professor (docent), Physical Geography, Lund University .
- 2000: Professor, Physical Geography, Lund University.
- 2012: Professor emeritus, Physical Geography and Ecosystem Science, Lund University

Appointments

- Founder and Head of the Remote Sensing and GIS lab, leader of its research group, Lund University, 1975-1998
- Research fellow (forskarass.), Lund University 1975-1980.
- Associate professor in Physical Geography (Docent), Lund University 1980-1987
- University lecturer and associate professor in Physical Geography, 1988-1999. Principal Researcher at the faculty research program, Lund University 1988-1994
- President of the board, Lund Team AB, (consultancy company on land resources assessment, monitoring and integrated analysis of tropical environments), 1988-2000.
- Executive Director, Lund Team AB 1988-1994, half time.
- Numerous United Nations appointments as a consulting expert on environment and natural resources assessments and analysis issues in Africa since the mid 1970's.
- Head, Department of Physical geography, Lund University, 1994-1998.
- Deputy head, Department of Physical Geography, 1998-2001

Major research contracts, supervision and project management activities

- 1969-1974: Research on chemical erosion in different climates for the doctor thesis.
- 1974/75-1977/78: Research on the use of Earth Resources Satellite data for land use mapping and hydrological applications - the Research Committee of the National Swedish Environment Protection Board (SNV) and the Swedish Natural Science Research Council (NFR).
- 1977/78-1980/81: Feasibility studies on the potential of satellite data for monitoring land use, vegetation, geology and land degradation in African drylands (Kenya, Tunisia, Sudan) - SAREC, The Swedish Space Corporation and the Swedish Board for Space Activities.
- 1980/81-1985/86: "Regional studies of desertification and its control" carried out jointly with the Institute of Environmental Studies, University of Khartoum, Sudan and sponsored by SAREC, "Development and application of computer based image processing, with special reference to satellite data, for natural resources studies and physical planning in Africa" - the Swedish Board for Space Activities.
- 1984-1993: Supervisor for research on the environmental impact of a SIDA sponsored land rehabilitation project in the Sidi Bouzid region in Tunisia on a contract for the Swedish University of Agricultural Science.
- 1985-1989: "Remote Sensing, Geographical Information Systems and Spatial Models for Land Degradation Studies" - NFR, "Drought Impact monitoring and Prediction in African Drylands- Development and test of an early warning system based on remote sensing technology" - SAREC.
- 1986/87-1991/92: "Research and development concerning the use of satellite data for crop status and areal distribution assessments and the use of satellite data for crop growth modelling and yield prediction in southern Sweden". - Swedish National Research Council on Forestry and Agriculture (SJFR).
- 1988/89-1990/91: "Geographical information system analysis for landscape studies. Digital elevation and terrain modelling" - Swedish Natural Science Research Council (NFR).

1993/94 - 1998: Land Cover Conversion, Land Degradation and Desertification - An Assessment of Regional and Continental Change - the Swedish Natural Research Council /NFR/ World Climate Research Programme, the Swedish Space Board, the Crafoord Foundation- in cooperation with NASA, the Chinese Academy of Sciences and Mongolian government units. Extensive repeated field assessments in dryland China and Mongolia.

2001-2002. University of Lund, Sweden – University of Mekelle, Tigray, Ethiopia cooperation on research, training and university capacity building related to studies of the impact of climate change on the environment and the relevant resource management systems in African drylands. SIDA funded project planning and development phase.

2005-2010. Leading position in EU FP6 Integrated Project “DeSurvey” (A Surveillance System for Assessing and Monitoring Desertification, EU contribution almost 8 M€, 5 years, 40 partners). Responsible for Project Monitoring, Evaluation & Contingency planning, participating in remote sensing, geomatics and modelling WPs, contributing to the Desurvey system validity component (China, Senegal, Chile, Tunisia, Morocco, Algeria) with special responsibility for China.



N. Kordofan, Sudan 1983, (Photo Uh)

Supervision of doctorands and teaching : Supervisor for PhD students within the fields of remote sensing, environmental monitoring, geomorphology, land and forest degradation/ desertification in African and Asian environments. Eleven received their PhD so far. I have been teaching on all university levels, in Sweden and abroad, on a wide span of earth and environment sciences including many field courses in Africa on natural resources and sustainable land use.

Field experience. Spitzbergen, Iceland, Scandinavian mountains, most countries of continental Europe, Tuuva Republic (Siberia), Mongolia, Thailand, All north China focusing on Inner Mongolia, Tunisia, Morocco, Egypt, Sudan, Gambia, Chad, Niger, Senegal, Mali, Ethiopia, Kenya, Uganda, Malawi, Zimbabwe, Namibia, South Africa, USA, Chile.

International symposiums. I have presented papers at some 50 international scientific symposiums on land degradation studies, environmental monitoring and analysis.

Referee, advicer and review related activities

-Reviewer on remote sensing as well as environment, climate change, desertification and land degradation papers submitted for international scientific journals e.g., *Ambio*, *Geografiska Annaler*, *Geophysical Research Letters*, *The Geographical Review* and *International Journal of Remote Sensing*. Reviewer and expert on the evaluation of many Scandinavian university senior lecturer and full professorships in Physical Geography.

-Project reviewer/observer/evaluator, EU/European Commission´s (EC) Environment and Climate programme 1995, 1997, 2000 (FP5), Earthwatch institute 2002, EC Environment and Sustainable Development Programme 2003, EC FP6 Global Change and Ecosystems 2003, The Danish Council for Development Research (Royal Danish Ministry of Foreign Affairs) 2003, Scientific Committee member Int Symp. on Remote Sensing and Geoinformation Processing in the Assessment and Monitoring of Land Degradation and Desertification, Trier 2005, FP6 INCO Development-3 specific measures Scientific Panel 2005.

-International scientific evaluator for the Academy of Finland, Research Council for Biosciences and Environment 2001-2004 and member of its International Expert Review Pool, 2001-2005.

International missions. I have been an expert, project evaluator and consultant on a large number of environment related projects and programs in many African field environments since 1977. The numerous missions include activities sponsored by the Worldbank, UNEP, UNDP, FAO, IUCN, IFAD and SIDA .

Publications: 425 hits in the International Science Citation Index. Some 90 papers, most of them on global change, land degradation and natural resources assessment related problems.