# BETTINA WOLFGRAMM, DR. PHIL.-NAT.

PERSONAL DETAILS

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bettina.wolfgramm@cde.unibe.ch

ate of Birth: 24 February 1974 Nationality: Swiss and German

Marital Status: Single, in a long-term partnership



## PROFESSIONAL EXPERIENCE AND RESEARCH

2009 - ongoing

Name of assignment or project: NCCR North-South, Research Project RP11, Land resource

potential and climate change. **Location:** Dushanbe, Tajikistan

Client: Swiss National Science Foundation & Swiss Agency for Development and

Cooperation

Main project features: Assessing the impact of sustainable land use systems for enhancing

food security and mitigating climate change at local and regional scale

Positions held: Project lead, PostDoc researcher

Activities performed: Methodological development for assessing the impact of SLM practices on soil condition (by combining field indicators, soil spectral libraries and GIS and remote sensing), documentation of SLM practices using WOCAT questionnaires, large-area assessment of land conservation and degradation using GIS and remote sensing, cosupervision of PhD and MSc students, coordination of trainings on field and lab methods, as well as GIS and remote sensing with and for the Tajik Soil Institute and the Tajik Agrarian University.

Omversity.

2009 - ongoing

Name of assignment or project: International Research Fellow of the Mountain Societies

Research Centre (MSRC, http://msrc.ucentralasia.org)

Location: Dushanbe, Tajikistan and Bishkek, Kyrgyzstan

Client: University of Central Asia (UCA, www.ucentralasia.org)

Main project features: Regional Rural Development / Environmental Science and Natural

Resource Management

Positions held: Senior Research Associate

**Activities performed:** Coordination of knowledge management activities and establishment of a knowledge platform in the field of sustainable land management (SLM), co-supervision of

UCA PhD students.

2012 - ongoing

Name of assignment or project: Technical support for Knowledge Management for

Integrated Watershed Management and Disaster Risk Reduction

Location: Dushanbe, Tajikistan

Client: Swiss Agency for Development and Cooperation

Main project features: Knowledge management for integrated watershed management

Positions held: Project lead

Activities performed: Providing backstopping to the SDC Dushanbe team for technically sound programming and definition of projects; fostering exchange of knowledge, and knowhow between the projects and other stakeholders; making state-of-the-art knowledge available for the projects; linking with UCA as a local/regional scientific institution and coordinating the setting up of a SLM knowledge platform in collaboration with other partners (e.g. GIZ/CACILM).

2011

Name of assignment or project: Phase 1 of Component A5, Agriculture & Sustainable Land

Management within the Tajikistan Pilot Programme for Climate Resilience (PPCR)

Location: Dushanbe, Tajikistan

Client: The World Bank

**Main project features:** Identifying SLM practices that can be applied to improve rural livelihoods and resilience to climate change, and to make recommendations regarding a feasible policy and legal framework for their upscaling in Tajikistan.

Positions held: Project lead

Activities performed: (1) Project lead, including coordination among CDE and associated partners, time management, and reporting; (2) Responsible for literature review on the current environmental status of land resources and impacts of CC on land and water resources; (3) Responsible for the collation of findings, analysis, and development of recommendations, including the development of a decision support method and tools, analysis across WOCAT case studies, and the integrative assessments of SLM practices and policy framework; (4) Responsible for presentation, consultation, report writing, and dissemination: including conducting the consultation process among SLM actors in Tajikistan, elaboration of the draft and final versions of the report and PowerPoint presentation; (5) preparation of a publication on analysis of and examples of SLM practices, representation of results at PPCR events.

2010-2011

**Name of assignment or project:** Sustainable Land Management in the High Pamir and Pamir-Alai Mountains (PALM), Component 1.1 Formulation of a SLM Transboundary Strategy and Action Plan

Location: Dushanbe, Tajikistan and Bishkek, Kyrgyzstan

Client: GEF/UNEP/UNU

Main project features: Participatory development of a Strategy and Action Plan for

Sustainable Land Management in the High Pamirs and the Pamir-Alai

Positions held: Project sub-component coordination

**Activities performed:** Coordination of a team with 5 Kyrgyz and 5 Tajik thematic experts, 3 strategy experts, and a team of 6 lawyers under the guidance of an international legal expert; multi-level stakeholder forums in Khorog, Jirgitol, Osh and Bishkek; conducting a consultation process among all relevant actors in Tajikistan and Kyrgyzstan; editing and publishing the final Strategy and Action Plan in English and Russian; reporting and presenting at project level and in international conferences.

2007-2009

**Name of assignment or project:** Capacity Building in the Use of Geospatial Tools for Natural Resource Management in Tajikistan

Location: Berne, Switzerland and Dushanbe, Tajikistan

**Client:** World Bank (Swiss Consultant Trust Fund (CTF) Support, and The Bank-Netherlands Water Partnership Program (BNWPP))

**Main project features:** Improving natural resource management by fostering the use of geospatial tools among governmental and nongovernmental institutions in Tajikistan. The project was implemented in the framework of the Community Agricultural Watershed Management Project (CAWMP)

Positions held: Project coordination

**Activities performed:** development of a land degradation database, capacity building in GIS, documentation and presentation of results at the project level and in international conferences

### **EDUCATION**

27 September 2007 23 April 2001

PhD (Dr. phil. nat.), Faculty of Natural Sciences, University of Bern, Switzerland MSc in Environmental Engineering, Swiss Federal Institute of Technology (ETH)

2003 - 2007 PhD Position

> National Centre of Competence in Research, NCCR North-South, Centre of Development and Environment (CDE), University of Bern, Switzerland.

PhD thesis: Land use, soil degradation, and soil conservation in the loess hills of Central Tajikistan

Studies of sustainable land management practices, soil monitoring, soil spectral reflectance libraries, spatial assessments of land cover and land use, erosion risk, and soil quality.

Supervision: Prof. Dr. Hans Hurni (CDE), Dr. Hanspeter Liniger (CDE), Dr. Keith Shepherd (World Agroforestry Centre, ICRAF, Kenya)

Field research: Field research included data inquires at various ministries and institutions, three field surveys, and laboratory measurement campaigns.

MSc Student in Environmental Engineering 1995 - 2001

Department of Civil, Environmental and Geomatics Engineering, ETH Zurich.

Diploma project: International Water Management Institute (IWMI), Lahore, Pakistan Assessment of infiltration properties of soils on cotton fields with various soil qualities.

WORK EXPERIENCE

2001 - 2003 Employer: Dr. Heinrich Jäckli AG

Location: Zurich, Switzerland

Positions held: Consulting environmental engineer

Main job features: Environmental auditing of construction sites

**Activities performed:** In charge of budgeting, planning, monitoring, and reporting for historical and technical site assessments of subsoil and groundwater contamination. Planning of remediation projects as well as expert monitoring of excavation and waste disposal on

construction sites.

INTERNSHIPS

International Water Management Institute IWMI, Lahore, Pakistan August -

December 2000 Infiltration experiments and field sampling of soil on two test sites, and laboratory work.

**Environmental Research and Management Centre ERMC** May -October 1999 American University of Armenia, Yerevan, Armenia

> Assessment of operational details and potential environmental impacts of Yerevan sanitary landfill, participation in field sampling, GIS mapping of Ararat Valley agricultural region.

VOLUNTEER WORK

Mentor within the project "Mentoring migrants" by cdf in Berne, Switzerland (www.cfd-ch.org) 2008

2003 - 2007 PhD Network of the NCCR North-South

LANGUAGE SKILLS

German: Mother tongue

English: Very good oral and writing skills (school exchange year in New Zealand (1991))

French: Good oral and writing skills

Russian: Intermediate oral and reading, basic writing skills (continuously being improved)

#### TECHNICAL SKILLS

**Geoprocessing:** 12 years' extensive and diverse experience in GIS and remote sensing.

2001-2002 Postgraduate Course in Geographical Information Systems (GIS), ETH Zurich

Statistics: Excellent knowledge of various statistical methods, including exploratory data analysis,

multivariate calibrations (multiple linear regression, partial least-square regression, regression tree modelling), non-parametric test statistics, and geostatistics (semivariogram analysis).

November 2008 Experimental design and analysis of cropping and agroforestry experiments, modular training

by Ric Coe (ICRAF) at Swiss College of Agriculture SHL, Switzerland

**Computer skills:** MS-Office (Word, Excel, PowerPoint, Access), Adobe Acrobat, Photoshop and Illustrator.

#### **INTERESTS AND HOBBIES**

Cinema and reading, alpine hiking and ski touring (Swiss Alps, Tajik Pamir, Rumania and Bulgaria, Sicily, Northern Pakistan), travelling (India, Turkey, London-Nairobi overland).

## SELECTED PUBLICATIONS

Wolfgramm B., Stevenson S., Lerman Z., Zähringer J. and Liniger H. 2011. PPCR Component A5, Phase 1: Agriculture & Sustainable Land Management. Final Report prepared for the World Bank. <a href="http://www.ppcr.tj/?Item=9">http://www.ppcr.tj/?Item=9</a>

Wolfgramm Bettina, Shigaeva Jyldyz, and Jumaeva Svetlana (Eds.). 2011. Strategy and Action Plan for Sustainable Land Management in the High Pamir and Pamir-Alai Mountains. PALM, GEF/UNEP/UNU Project "Sustainable Land Management in the High Pamir and Pamir-Alai Mountains – Integrated and Transboundary Initiative in Central Asia". Dushanbe, Tajikistan. http://www.ehs.unu.edu/palm/file/get/8238

**Bühlmann E, Wolfgramm B, Maselli D, Hurni H, Sanginov SR, Liniger HP.** 2010. Geographic information system—based decision support for soil conservation planning in Tajikistan. Journal of Soil and Water Conservation 65 (3): 151-159. doi:10.2489/jswc.65.3.151. http://www.jswconline.org/content/65/3/151.full.pdf+html

Wolfgramm B, Shigaeva J, Nekushoeva G, Bonfoh B, Breu T, Liniger HP, Maselli D. 2010. Kyrgyz and Tajik land use in transition: Challenges, responses and opportunities. In: Hurni H, Wiesmann U, editors; with an international group of co-editors. Global Change and Sustainable Development: A Synthesis of Regional Experiences from Research Partnerships. Perspectives of the Swiss National Centre of Competence in Research (NCCR) North-South, University of Bern, Vol. 5. Bern, Switzerland: Geographica Bernensia, pp 241–254. <a href="http://www.nccr-north-">http://www.nccr-north-</a>

south.unibe.ch/document/document.asp?ID=6763&refTitle=the%20NCCR%20North-South&Context=NCCR

NCCR North-South. 2009. Natural resources: the climate change challenge. NCCR North-South Policy brief No. 4. <a href="http://www.nccr-north-south.unibe.ch/publications/Infosystem/Online%20Dokumente/Upload/NCCR">http://www.nccr-north-south.unibe.ch/publications/Infosystem/Online%20Dokumente/Upload/NCCR</a> Policy Brief Climate Change.pdf

**Wolfgramm B, Seiler S, Kneubühler M, Liniger HP.** 2007. Spatial assessment of erosion and its impact on soil fertility in the Tajik foothills. EARSeL eProceedings 6 (1):12-25. <a href="http://las.physik.uni-oldenburg.de/eProceedings/vol06\_1/06\_1\_wolfgramm1.html">http://las.physik.uni-oldenburg.de/eProceedings/vol06\_1/06\_1\_wolfgramm1.html</a>