

Overview of Danish research competences and research projects

- with regard to climate change impacts, mitigation and adaptation in developing countries.



Consultancy overview compiled by:

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Background

- Joint project of *Danish Development Research Network (DDRN)*, *Danish Water Forum (DWF)* and the *Danish Research Network for International Health (ENRECAHEALTH)*

 - In January 2008 a task-force was set up, initiated by the three research networks and with the support from Danida
 - Aim: discuss research and knowledge sharing with regard to climate change and the impacts in developing countries.
 - Initial steps: The task force decided as its first activity to initiate a mapping of Danish research competences

 - Mapping aimed at:
 - relevant authorities in developing countries,
 - the research community,
 - research funding,
 - donor agencies,
 - and consultants involved in the planning of activities relevant to CC impact, mitigation and adaptation.

 - Outcome
 - Based on this mapping more concrete activities can be developed to promote knowledge sharing within the resource base in Denmark and between researchers and others in Denmark and developing countries.
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Methodology

- The overview is based on individual contributions from researchers at 10 Danish research institutions
 - DMI; DHI; DIIS; GEUS; UNEP Risoe Centre; DTU, University of Copenhagen; University of Aarhus; University of Aalborg; SDU
- In a questionnaire form, researchers were asked to specify their competences and research area according to 11 focal areas.

1. The climate system;
 2. CC and agriculture;
 3. CC and local livelihoods;
 4. CC and mitigation;
 5. CC and adaptation;
 6. CC and health;
 7. CC and water resources;
 8. CC and security;
 9. CC, law and governance;
 10. CC, rivers and coastal dynamics;
 11. CC, ecosystems and biodiversity
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Results

- Initial target group of more than 100 researchers

- Result:
 - 63 individual competence profiles
 - 64 profiles of ongoing or recently completed research projects

- Closely interlinked focal areas
 - 9 with one focal area,
 - 19 with two focal areas
 - 22 with three focal areas
 - 13 with more than three focal areas

Focal area	Related profiles	Related projects
1: The climate system	14	20
2: CC and agriculture	21	22
3: CC and local livelihoods	21	23
4: CC and mitigation	14	15
5: CC and adaptation	26	25
6: CC and health	5	5
7: CC and water resources	25	22
8: CC and security	5	6
9: CC, law and governance	7	6
10: CC, rivers and coastal dynamics	10	8
11: CC, ecosystems and biodiversity	20	16
Total number of profiles and projects	63	64

Table 3.1: Number of researchers and research projects grouped by focal area

Overview: individual research competences

Annex 1: Danish research competences in relation to climate change impacts, mitigation and adaptation in developing countries

Danish research competences - in relation to climate change (CC) impacts, mitigation and adaptation in developing countries (DC's)							
No.	Name of researcher	CC related focal area	Thematic specialisation	Geographic specialisation	Collaborating partners in DC's	Summary of functions and competences	Research projects Details on projects in Annex 2
1	Ammentorp, Hans Christian Senior hydrologist, Water Resources DHI Phone: +45 45 16 91 32 Web: www.dhigroup.com E-mail: hca@dhigroup.com	Adaptation, Water resources	Modelling hydrology and water resources management systems Reservoirs	Africa, Asia	National authorities and river basin authorities	Planning water management, modelling, Optimisation of water use, Training	Participant project No. 6, 7 & 8
2	Baklanov, Alexander Dr. Sci., Professor Vice-director of Danish Strategic Research Center for Energy, Environment and Health (CEEH) Senior scientist Danish Meteorological Institute (DMI) Phone: +45 39157441 Fax: +45 39157460 E-mail: alb@DMI.dk Web: http://DMI.dk , http://CEEH.dk , http://baklanov.dk	The climate system, Local livelihoods, Mitigation, Health	Atmospheric pollution and climate change; effects of urban areas (megacities) on environment pollution and climate	Many different countries around the world	Not yet	The coordinator of 7FP EC project MEGAPOLI "Megacities: Emissions, urban, regional and Global Atmospheric POLLution and climate effects, and Integrated tools for assessment and mitigation" Convener of the FAU conference 2008 Workshop 1 "Megacities: Development Scenarios and Impact on Environment and Climate"	Coordinator project No. 16
3	Balslev, Henrik Professor, PhD University of Aarhus (AU) Phone: +45 8942 2743 Fax: +45 8942 2722 Web: www.henrikbalslev.dk E-mail: henrik.balslev@biology.au.dk	Local livelihoods, Ecosystems and biodiversity	Research, Palms, Biodiversity, Ecosystems, South America	South America, Ecuador, Peru, Bolivia, Colombia, Amazonas	University of San Francisco Xavier de Chuquisaca in Sucre, San Andrés University (UMSA) in La Paz, Bolivia, 1) Monica Moraes R Universidad Mayor de San Andres, La Paz, Bolivia,, monicamoraes@acelerate.com 2) Betty Millán Salazar, Universidad Nacional Mayor De San Marcos, Lima, Peru, bmillans@unmsm.edu.pe 3) Renato Valencia, Pontificia Universidad Católica Del Ecuador, Quito, rvalencia@puce.edu.ec 4) Gloria Galeano, Universidad Nacional De Colombia, Bogota, gagaleanog@unal.edu.co	Research, teaching, grant applications, project coordinator, conference planning,	Coordinator project No. 56, 57 & 58
4	Birch-Thomsen, Torben PhD., Associate Professor Phone: +45 35 32 25 70 Fax: +45 35 32 25 01 Web: www.geogr.ku.dk/staff/tbt E-mail: tbt@geogr.ku.dk	Agriculture, Local livelihoods	Natural resource management, land use/land use change, rural livelihoods, rural-urban linkages, agricultural systems	East and Southern Africa; Tanzania, South Africa Oceania; Solomon Islands	Institute of Resource Assessment, University of Dar es Salaam (Tanz), Scholl of Environmental Sciences, University of KwaZulu-Natal (SA) University of South Pacific (Fiji)	Project coordination and management, capacity building	Participant project No. 47

Overview: ongoing research projects (2008)

Annex 2: Danish research projects in relation to climate change impacts, mitigation and adaptation in developing countries

Overview of research projects In relation to climate change (CC) impacts, -mitigation and -adaptation in developing countries (DC's)								
No.	Project title and Danish institution	Project coordinator * and contact person † Details on profiles in annex 1	CC related focal area	Theme of project	Aim of project	Geographic focus	Collaborating partners in DC's	Funding and duration of project
1	Danish Technical University (DTU) "Optimising reservoir operation"	DTU: Dan Rosbjerg * † (Profile No. 52)	Water resources, Security, Rivers and coastal dynamics	Water resources optimisation and flood protection	Improving the management of the Hoa Binh reservoir	The Red River basin Vietnam	Hanoi Water Resources University http://www.wru.edu.vn/En/Web/Default.aspx	Danida: approx 1 million DKK 2003-2006
2	Danish Technical University (DTU) "Coping with drought"	DTU: Dan Rosbjerg * † (Profile No. 52)	The climate system, mitigation, water resources	Drought prediction and management	Drought assessment, warning and mitigation in the central highlands	South-East Asia Vietnam Central highlands	Hanoi Water Resources University http://www.wru.edu.vn/En/Web/Default.aspx	Danida: approx 1 million DKK 2003-2006
3	Danish Technical University (DTU) "Oasis-hydrosphere-desert interaction in arid regions"	Lars Bengtsson, Lund University * DTU: Dan Rosbjerg † (Profile No. 52)	The climate system, Agriculture, Local livelihoods, Water resources	Water resources management	Development of scenario analyses in arid and semi-arid regions	East Asia China Gansu province	Wang Zongjing, Tsinghua University zj.wang@tsinghua.edu.cn http://www.civil.tsinghua.edu.cn/en/new_04.aspx	EU: Approx. EUR 20,000 (in total EUR 375.000) 2003-2005
4	DHI Benefits of Climate Change Adaptation from Small and Medium Scale Hydropower Plants -Synergies and Trade-Off with Rural Development	DHI: Roar Askjaer Jensen * † (Profile No. 28)	Local livelihoods, Adaptation, Water resources	Adaptation, hydropower, rural development	The study is of a plan for around 120 small and medium scale hydropower schemes in Lao Cai province in the Northern Mountains of Vietnam. Responsible for design and supervision of a study based on OECD's Poverty Impact Assessment methodology. Task include review of social-economic development plan for Lao Cai Province; Cost/benefit evaluation for hydro-power development; assessment of employment opportunities; benefits of infrastructure (e.g. roads, social services); cost/benefits for affected people, their livelihood strategies, resilience to change cultural practices etc.; and cost/benefits for resettlement of the local population and subsequent impacts on their livelihood strategies	Vietnam, Lao Cai Province	N/A	Danish Embassy, Hanoi, Vietnam 1 year, 2007-2008

Conclusions

Results

- Many of the focal areas within climate change research are closely interlinked, and as a result researchers in this report often associate their competences and projects with several areas.
- Some focal areas are more clearly represented than others (e.g. CC and agriculture; CC adaptation; CC mitigation)
- Areas such as CC and Health, or CC and security tend to be less explored within the Danish research community.
 - A quick GoogleScholar search suggest a similar trend elsewhere, although it also appears that an increased focus on health and security in relation to CC has emerged

Methodological considerations

- If a similar mapping exercise is to be carried out with more in-depth analysis in the future, it should be considered to focus on less- and more explicitly defined focal areas.
 - Also, fixed criteria for assessing the relevance of research projects would ensure a more consistent methodology for the overview.
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Conclusions

...however:

- The three research networks believe that the researchers and resource persons included in this report could provide decision-makers and development workers with evidence of relevance which can inform policies and development activities.
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Thank you !

