

Evaluation of the Research and Professional Activity of the Institutes of the Czech Academy of Sciences (CAS) for the period 2010–2014

Final Report on the Evaluation of the Institute

Name of the Institute: Global Change Research Centre of the CAS, v. v. i.

Fields, in which the Institute registered its teams:

Social and economic geography

Observer representing the Academy Council of the CAS: Pavel Janoušek

Observer representing the Institute: Zdeněk Žalud, substitute observer Karel Klem, Vladimír Špunda

Commission No. 10: Social sciences

Chair: doc. JUDr., PhD., LL.M. Kristian Csach

Date(s) of the visit of the Institute: October 19 - October 23, 2015

Programme of the visit of the Institute: see attached Minutes from the visit

Evaluated research teams:

No. 4 - Division of the human dimensions of global change impacts

A. Evaluation of the Institute as a whole

1. Introduction

The Global Change Research Centre CAS (GCRC) was established in 2010/2011 and it builds on the previous successful scientific activities of the Institute of Systems Biology and Ecology CAS. The main reason for this new Centre establishment was the successful obtaining of the support for realisation of the project of European Centre of Excellence CzechGlobe – Centre for the Study of Global Climate Change Impacts within the EU Operational Programme Research and Development for Innovations, involving the major part of the Institute. Thus in the period 2011-2014, the main effort was put in building of top research infrastructure and top expert teams enabling interdisciplinary research on the issue of global change.

CzechGlobe consist of 5 divisions and this structure is as following with team NR. 4 being evaluated by this Commission:

1. Division of Climate Analysis and Modelling
2. Division of Ecosystem Analysis
3. Division of Impact Studies and Physiological Analyses
4. Division of the Human Dimensions of Global Change Impacts
5. Division of Innovation and Adaptation Techniques

2. Strengths and Opportunities

Unique infrastructure;

Concept of an European Centre of Excellence;

Project know-how;

Successful and deep international collaboration;

Drive for uniqueness;

Open Access scientific results and data management;

Promising age structure;

Gender Equality in Research policy.

3. Weaknesses and Threats

High operating costs of the state-of-the-art equipment combined with uncertainty of funding;

Largely project dependent funding;

Administration burdens;

Interinstitutional cooperation with other CAS institutions.

4. Recommendations

The commission does not have much to say about the Institute as such since we were asked only to evaluate one of their teams connected to social sciences and we

do not feel entitled to say much about the Institute and other departments/divisions as such.

According to the provided data, the research results is not evenly distributed between the departments/divisions. The leadership of the Institute shall encourage the divisions with lower outputs to step up their activities.

However, it seems that as a result of establishing a new institutional research centre with all the unique infrastructure and the implied accent on uniqueness the evaluated team got – to a certain extent – into a walled position against the other institutes. More cooperation with other institutes (i.e. geonics) is needed as it would bring more effect (synergy) than the current situation of parallel research.

Our final remark is that the Institute's leadership has not thought carefully how to link its main research on climate change with the human and social consequences, treating it de facto as a footnote, instead of rising to the challenge.

Most of the shortcomings observed here might be derived from the initial stage of the team's existence. However, the Commission underlines the importance of establishing good practices and informal guidelines within the starting phase of the Department.

5. Detailed evaluations

Declaration on the quality of the results and share in their acquisition

The Phase I results indicate that the Institute produces a significant amount of research outputs including publications classified as belonging to the first quality group. The publishing activity is unevenly distributed among the departments of the institute. The evaluated team's research output formed only a small share in the Institute's output.

The newly founded Institute was based mainly on the achievements of previous research work and high quality scientific projects.

Declaration on the involvement of students in research

Students participate, in frame of their BSc., MSc. and Ph.D. theses, in national and international projects solved within the GCRC teams. Ph.D. students are often parttime employed at GCRC and therefore are involved in the usual scientific and monitoring work, i.e. field work, modelling and statistics, data validation and writing of scientific papers.

Intensive involvement of the Institute's members into pedagogical activities (72 master theses and 42 Ph.D. these defended in the evaluated time)

Declaration on societal relevance

CzechGlobe aims to be the main research centre in the Czech Republic for the integrated study of global changes. It covers a very important, socially relevant topic

in a unique way. It builds upon the research excellence of the founding teams and established world class unique research infrastructure.

The Centre is very active in research popularization with its own films and video presentations, mass media briefings, participation in public lectures and presentation etc.

Success in applied research activities and deepening the cooperation with private partners is welcome but might be enhanced.

Declaration on the position in the international and national context

The Institute itself seems to have a very good international PR and popularization strategy and the evaluated team could also benefit from the contacts established by the Institute.

Extensive cooperation with foreign universities, although it is not clear whether the cooperation is limited to single lectures (as the number of researchers participating in the cooperation with foreign institutions provided to the Commission is mostly limited to 1-2) or a lively cooperation, joint papers, projects etc. The numbers indicate a massive leaning towards the cooperation with domestic universities and research centres with foreign cooperation limited to 1-2 researchers. The cooperation with international partners was presented as consisting of participation in EU projects and co-organization of conferences / workshops.

The Commission was provided with information on high interest in scientific cooperation with CzechGlobe and use of its infrastructure and expertise evidenced by more than 50 cooperation agreements signed with research centres, universities, private partners and public service.

Moreover, GCRC operates as a single national monitoring point within multiple international scientific networks. Moreover, it offers access to research basic and meta data

Declaration on the vitality and sustainability

The promising age structure and research results, successes in obtaining project funding and the unique equipment is a sign of sustainability and vitality of the Institute.

Declaration on the strategy and plans for the future

The description of strategic research aim is promising but if the social sciences aspects are still underrepresented. A more significant involvement of social aspects into the research shall be facilitated not only by the Institute's own division but also by cooperation with other institutes.

B. Evaluation of the individual teams

Evaluation of the Team No. 4: Division of the human dimensions of global change impacts

1. Introduction

The division of human dimension is a recently established division (2010) which is supposed to round-up the natural sciences departments of the global change impact institute.

2. Strengths and Opportunities

Great opportunity of the topic;
Access to solid equipment offered by the Institute;
Initial momentum of a newly established research team;
Involvement in EU projects

3. Weaknesses and Threats

Subcritical mass of researchers;
Inbreeding and the risk of a one man structure;
Uneven age structure;
Weak methodological approach of the current team;
Lack of interdisciplinary research;
No interaction with other institutes of CAS.

4. Recommendations

The Commission recommends to redesign the collaboration between the Institute and social scientists interested in understanding the social and human effects of climate change to produce high level and meaningful research.

External evaluation (if not supervision) would be beneficial for the newly established research team in order not to create wrong procedures from the beginning on.

5. Detailed evaluations

Declaration on the quality of the results and share in their acquisition

This young and small team is enthusiastic and tries hard to do the research it is assigned to do. Nevertheless, the Commission feels that the quality of the research of the team, despite some international publications in lower tier journals, is not up to the task it is supposed to tackle. The research is methodologically weak, using process-based modelling to outline scenarios of human and social consequences of climate change. The team leader was not able to explain well the originality of what they were doing nor to give precise answers to the questions of the commission about methodology used.

The Commission feels that some of the exercises appear to be very mechanical, using existing models to study the effects of climate change on natural habitats to produce scenarios of human effects. This does not seem to be well founded from the point of view of social science disciplines. The opportunities for high quality research are nevertheless enormous. Climate change affects the likelihood of conflicts and civil wars such as in Sudan, it affects agricultural prices, crop choices, it may affect the social fabric in ways that we are yet to understand. Research on these issues is done at the international level by economists, political scientists, sociologists. Collaboration of these disciplines with climate change specialists is a new and original research agenda, of the highest relevance for the planet. The current team is, in our view, not quite up to the task, of raising to these important challenges. A particular need of closer mentoring by high level social scientists interested in the consequences of climate change was noticed by the Commission.

The Commission was also surprised that the team was not informed of the existence of the team of human geography at the Institute of Geonics, with strongly overlapping research themes and publication in similar journals. These are two very small teams (located in the same city) that would benefit from collaborating.

Declaration on the involvement of students in research

One negative element is that the Ph.Ds coming out of the team are rehired as postdocs by the team instead of being placed outside the Institute.

The pedagogical activity is oriented around the involvement of the team leader at the Charles University in Prague. Two courses are being primarily taught, including Ecosystem services at the Institute for Environmental Studies, Faculty of Science, and Methods of Global Change Studies at the Faculty of Humanities. The team leader has been also supervising several doctoral, master and bachelor thesis. The demands to supervise 6 doctoral theses might be extensive and detrimental to the academic activities.

Declaration on societal relevance

The topic addressed by the research team has significant relevance and is very promising. However, the results achieved in the evaluated period (establishing of the institute) are still not on par with other well established institutes.

Members of the team are involved in popularization activities, such as lectures for Public or newspaper articles.

Declaration on the position in the international and national context

As mentioned before, the evaluated team is newly established and still not definitely located on the map of research teams focusing on the researched topic. The Institute

itself seems to have a very good international PR strategy and the team could benefit from the contacts established by the Institute.

Declaration on the vitality and sustainability

The sustainability of the evaluated team is dependent on the interaction and cooperation with other institutes focusing on similar problems from a social sciences perspective.

The young age of the research team is promising but the risk of path dependence as their Ph.D. supervisor becomes their team leader is a risky endeavour.

Declaration on the strategy and plans for the future

The description of strategic research aim is promising, but more attention should be paid to methodological aspects of the research.

Date: February 29, 2016

Commission Chair: doc. JUDr., PhD., LL.M. Kristian Csach