

## Midterm Report

This midterm progress report form must be used by research projects that are half way through the project. The reporting covers the progress in project implementation, including the status of the partnership, research capacity building and processes, communication and outreach activities.

**Carefully comply with the instructions provided in the left side of the form.**

Please save your input continuously to avoid losing data. There are "Save changes below" and "Save changes above" buttons at the top and the bottom of the page, respectively – when you use these, you save only the current step of the form.

# Step 1

## Basic info

All name and address fields must be completed before the report can be submitted.

### Report for the years

2014

### Project title

Climate Change-Induced Water Disaster and Participatory Information System for Vulnerability Reduction in North Central Vietnam (CPIS)

### DFC file no.

11-P04-VIE

### Project Coordinator

Prof. Dr. Phan Van Tan

### Research partner(s)

Indicate for each partner the name of main partner researcher, e-mail of the main partner researcher, department, institution and country.

Assoc. Prof. Dr. Ole Bruun

Email: [obruun@ruc.dk](mailto:obruun@ruc.dk)

Institution: Department for Society and Globalization, Roskilde University (RUC)

### Project start and end date

Indicate the start and end date of the project according to the Letter of Commitment.

Oct 2012 - Oct 2015

### Adjusted project period with date of approval by DFC, if applicable

No/Not yet

# Step 2

Management

Conditions set at the approval of the first year report, if applicable

Project management

Ethical approvals/research permits

Project website

### **Conditions set at the approval of the first year report, if applicable**

Explain the actions taken to meet the conditions.

Conditions set at the approval after the previous report and the actions taken to meet the conditions are:

- 1) Project will submit an appendix to the annual progress report reporting on the approved outputs: This appendix had been submitted to the DFC already after the meeting in April 2014.
- 2) The project will examine possibilities for involving PhD students and DFC will look into the approved application on PhD involvement: Four PhD students and four Master students have been screened and being involved in the project.
- 3) Project coordinator will sign compiled accounts and re-submit: Already done.

### **Project management**

Explain status of project management and coordination (achievements, challenges, and constraints).

Project is managed and monitored by the Project Management Board under HUS and VNU.

Project went smoothly during the last period (2013-2014). All the project activities have followed the time schedule to reach the planned milestones corresponding to the budget.

### **Ethical approvals/research permits**

Approvals/permits, issued by which authorities and dates of approval.

There are two points have been approved by DFC related to the budget in last year:

- 1) Firstly, the project has contracted with Mr. Nguyen Xuan Thanh to work in the project as a technical assistant. This is beneficial to the implementation of the project and to achieve the planned outputs. His salary is accommodated in budget line 1 (Salaries and Emoluments).
- 2) Secondly, the reallocation from budget line 4 to budget line 5 slightly exceeds 10% on budget line 5 has been approved by DFC as mentioned in the email from DFC on 19<sup>th</sup> December 2014.

### **PhD students status**

Status of each PhD student including name of PhD student, university and date of enrolment, activities, study stays, supervision and expected time of thesis submission.

Include similar status of MSc students, if applicable.

Four PhD and four Master students have been screened and being involved in the project. Their status are the following:

- 1) PhD student Nguyen Duc Hanh:  
Date of enrolment: December 2014  
University: VNU Hanoi University of Science, Faculty of Meteorology, Hydrology and Oceanography  
Activities: The student is involved in WP4 of the project (Water Disaster Assessment and Analysis). His main activity is to simulate hydro-dynamical and sedimentary processes.

- Study stays: Three years (December 2014-December 2017)  
Supervisor: Assoc. Prof. Dr. Tran Ngoc Anh  
Expected time of thesis submission: End of 2017
- 2) PhD student Ngo Chi Tuan:  
Date of enrolment: December 2014  
University: VNU Hanoi University of Science, Faculty of Meteorology, Hydrology and Oceanography  
Activities: The student is involved in WP4 of the project (Water Disaster Assessment and Analysis). His main activity is to assess the vulnerability to characteristics of land surface over river basins in Central Vietnam for flood prevention planning.  
Study stays: Three years (December 2014-December 2017)  
Supervisor: Assoc. Prof. Dr. Nguyen Thanh Son  
Expected time of thesis submission: End of 2017
- 3) PhD student Ngo Thi Thanh Huong  
Date of enrolment: December 2012  
University: VNU Hanoi University of Science, Faculty of Meteorology, Hydrology and Oceanography  
Activities: The student is involved in WP3 of the project (Assessment of Climate Change and Extreme Climate Events). Her main activity is to investigate the summer monsoon changes over Vietnam.  
Study stays: Four years (December 2012-December 2016)  
Supervisor: Assoc. Prof. Dr. Vu Thanh Hang  
Expected time of thesis submission: End of 2016
- 4) PhD student Le Nhu Quan  
Date of enrolment: December 2010  
University: VNU Hanoi University of Science, Faculty of Meteorology, Hydrology and Oceanography  
Activities: The student is involved in WP3 of the project (Assessment of Climate Change and Extreme Climate Events). His main activity is to simulate and to project changes in extreme rainfall events over Vietnam using Regional Climate Models.  
Study stays: Four years (December 2010-December 2014)  
Supervisor: Prof. Dr. Phan Van Tan  
Expected time of thesis submission: Submitted and under revision.
- 5) MSc student Le Ha Phuong  
Date of enrolment: December 2011  
University: School of Graduate Studies, VNU  
Activities: The student was involved in WP5 of the project (Impact and Vulnerability Assessment). Her main activity is to assess the impacts of and vulnerability to climate change on aqua-agriculture in Quang Ninh district, Quang Binh province.  
Study stays: Two years (December 2011-December 2013)  
Supervisor: Prof. Dr. Phan Van Tan  
Expected time of thesis submission: Thesis was successfully defended.
- 6) MSc student Le Van Hoan  
Date of enrolment: December 2012  
University: VNU Hanoi University of Science, Faculty of Geography

Activities: The student was involved in WP5 of the project (Impact and Vulnerability Assessment). His main activity is to assess the impacts of natural disasters on agriculture in Vo Ninh commune, Quang Ninh district, Quang Binh province.

Study stays: Two years (December 2012-December 2014)

Supervisor: Assoc. Prof. Dr. Tran Anh Tuan

Expected time of thesis submission: Thesis was successfully defended.

7) MSc student Nguyen Xuan Hau

Date of enrolment: December 2012

University: School of Graduate Studies, VNU

Activities: The student was involved in WP5 of the project (Impact and Vulnerability Assessment). His main activity is to assess Climate Change Impacts on flood/flooding over Nhat Le river basin, Quang Binh province.

Study stays: Two years (December 2012-December 2014)

Supervisor: Prof. Dr. Phan Van Tan

Expected time of thesis submission: Thesis was successfully defended.

8) MSc student Nguyen Kim Ngoc Anh

Date of enrolment: December 2013

University: VNU Hanoi University of Science, Faculty of Meteorology, Hydrology and Oceanography

Activities: The student is involved in WP4 of the project (Water Disaster Assessment and Analysis). Her main activity is to estimate the water balance of the Lam river basin, Nghe An province.

Study stays: Two years (December 2013-December 2015)

Supervisor: Assoc. Prof. Dr. Tran Ngoc Anh

Expected time of thesis submission: End of 2015

### Project website

Update the link to the project website, if changed since the last reporting.

<http://danida.vnu.edu.vn>

### Substantive changes in the project (content and/or persons), if applicable

Specify and explain the changes in the project which, according to the General Conditions, are required to be reported.

Indicate the date of approval from DFC.

Project has contracted with Mr. Nguyen Xuan Thanh to work in the project as a technical assistant. This was approved by DFC on 30<sup>th</sup> July 2014 via email.

# Step 3

Partnership

Partnership status

Joint research activities

## Partnership lessons

### National and international cooperation

#### Partnership status

Explain the status of partnership cooperation and collaboration, including participation and engagement of all project partners (achievements, challenges, and constraints).

Danish partner, led by Dr. Ole Bruun, closely cooperates with Vietnamese researchers in terms of frequently exchanging information through visits to Vietnam for field works, workshops/seminars, discussions via emails. The mechanism of sharing data and at least three international joint publications have been set up between the Danish (Dr. Mogens Buch-Hansen and Dr. Thorkil Casse) and Vietnamese researchers. The Danish and Vietnamese researchers also together successfully organized the workshop on "Participatory Information System (PIS) and User-needs: A Tool Linking Scientists, Authorities and Communities" which was held in Ha Tinh City on 08<sup>th</sup> December 2014. This workshop was disseminated on a Vietnam News Agency (TTXVN) TV channel at 19:00 16<sup>th</sup> December 2014, and was highly appreciated by local governments and communities.

#### Joint research activities

List the joint activities implemented, e.g. fieldwork, publications, PhD supervision, etc.

- 1) Five joint fieldworks between Vietnamese and Danish researchers during last year had been carried out in March 2014, May 2014, October 2014, December 2014 and January 2015
- 2) Vietnamese and Danish teams were co-organizers of the International workshop on "Participatory Information System (PIS) and User-needs: A Tool Linking Scientists, Authorities and Communities" which was held in Ha Tinh City on 08<sup>th</sup> December 2014
- 3) At least three joint scientific articles are submitted and/or under revision/finalization (Two from Dr. Mogens Buch-Hansen, one from Dr. Thorkil Casse and Vietnamese team)

#### Partnership lessons

Explain the main challenges, lessons learned and recommendations useful for future projects/other project teams.

- 1) For various reasons it is difficult to organize joint fieldwork sessions between the Danish and Vietnamese teams. However, we do it as best as we can and make sure that all field trips are well planned, communicated, and open for the participation of everyone. When Danish researchers come to Vietnam they always meet and discuss with Vietnamese researchers, whether or not they go on joint field trips.
- 2) In terms of joint publications, we work across different incentive structures as well as different academic traditions. This makes joint publications very time consuming. Especially in the soft sciences, which already build on extensive periods of data collection and furthermore struggle with long processes of review and revision in international journals, it may be almost impossible to achieve a substantial

publication record within the time frame of the project. In the present project socio-economic data collection is expected to continue throughout the project, for which reason a number of planned publications will only appear with considerable delay in relation to the termination of the funding. It could perhaps be an idea to set aside small funding for publication-related expenses and activities after the termination of the project.

- 3) Communication is often hampered by language and culture barriers. In actual practice many connections with potential relevance to the research are not being developed or not being used sufficiently, to the effect that the communication may have relatively few channels and does not achieve a real network structure. It may be advisable to experiment with different project and subgroup structures during the course of the project, as well as to secure professional interpretation/communication competencies in the secretariat to make sure that the research and knowledge of every participant is exploited fully to the benefit of the project

### **National and international cooperation**

Explain possible cooperation established with national/international institutions.

The following international collaborations in framework of the project activities have been established:

- 1) A working Team between scientists from HUS, IMHEN and CSIRO in the mission of High Resolution Climate Projection for Vietnam
- 2) International Network of South East Asia Regional Climate Initiative (SEARCHI)

## Step 4

Progress

Brief description of progress

Deviations in the approved objectives, outputs, and outcomes

Other new factors affecting the achievement of the objectives, outputs and outcomes

Research capacity building

Research process

### **Brief description of progress**

Max characters 2,000 - Used 0 - 0%

The brief description of the project progress should be written in a popular scientific manner so that it is understandable to laymen in the field.

It will be used for the Danida Research Portal and made available to the Danish Embassies in the partner country/countries.

The main purpose of the project is to achieve the following outputs: 1) A Participatory Information System (PIS) for vulnerability reduction and resilience enhancement; 3) Enhancement of human resources, especially training PhD and MSc students; 4)

Publications; and 5) Reinforced collaboration and cooperation between Natural Scientists, Socio-economists and institutions in Vietnam and Denmark as well.

After two years running of the project, almost all of above outputs have been reached (about 80%). It consist of: 1) A networking between scientists, local governments and communities has been setup and worked effectively; 2) Results from Work Packages (WPs) were standardized and are being finalized for the PIS; 3) Four Master students have been involved in the project; 4) Four PhD students have been screened and are being involved in the project; 5) Two among four PhD student are doing internship in Japan; 6) More than 10 associated project members have been participated in international workshops/conferences; 7) The GIS-based PIS has been conducted and under the completion before being able to use for training local people; 8) Through the project, an international interdisciplinary Vietnamese-Danish working team has been setting up and run smoothly; 9) A workshop on “Participatory Information System (PIS) and User-needs: A Tool Linking Scientists, Authorities and Communities” was successfully organized with participation of more than 50 delegates from provincial, district, communal and village levels of NHQ and about 30 Danish and Vietnamese scientists; 10) 14 papers have been published by project, in which 5 ISI scientific articles and 9 conference/workshop proceedings, 3 other papers are submitted or under completion. The publication is one of the highlight achievement of the project.

### **Deviations in the approved objectives, outputs, and outcomes**

Justify possible deviations in the approved objectives, outputs, and outcomes.

No

### **Other new factors affecting the achievement of the objectives, outputs and outcomes**

Explain possible other new factors affecting the achievement of the objectives and outcome of the project and how such will be addressed.

No

### **Research capacity building**

Describe the progress in terms of general research capacity building including at the institutional level, e.g. training of staff and improvement of facilities.

Include lessons learned.

- 1) Thanks to the project, all Vietnamese researchers have good working environment and opportunities to enhance their capacity in terms of skills of data analysis, interdisciplinary research, writing scientific papers, team working, etc.
- 2) Through the workshops, conferences, seminars, at which both Vietnamese and Danish researchers gave presentations and discussions, all Vietnamese researchers and students have been improving their knowledge and experiences in both natural and socio-economic sciences and in interdisciplinary approaches
- 3) Young Vietnamese scientists and Master, PhD students have opportunities to learn and accumulate their knowledge on the research approaches of the social science

and on the experiences of field surveys from the Danish researchers thanks to joint fieldworks

- 4) All Vietnamese researchers and students have been accumulated their practical knowledge and experiences through working and discussing with local authorities and communities
- 5) The most valuable lesson learned in research capacity building is team working and seminars/discussions.

## Research process

Describe the progress in the research process including collection and analysis of data, field work, etc.

List main challenges and how these have been met.

Include lessons learned.

Almost all activities of the project have been done corresponding to the Time Schedule, Grant chart and Milestones approved. However, one of the main project outputs, PIS, is under construction. Detail of project progress is below.

- 1) Data inventory (WP1): This WP has been done already
  - All available static data were collected, quality controlled, standardized, and uploaded to the project ftp server for sharing to all project members
  - All initial and boundary condition data for running and validating Regional Climate Models (RCMs) have been collected and stored in the storage server of HUS (very huge datasets)
- 2) Indigenous Knowledge Integration (WP2): The objectives of this WP has been almost archived. The outputs are being finalized and standardized for the PIS.
  - Technical reports on indigenous knowledge in NHQ
  - Pictures, videos, voice records, etc.
  - Publications: The new scientific articles are being prepared for submission and publication
- 3) Assessment of Climate Change and Extreme Climate Events (WP3): This WP has been almost done. The results of climate simulation and projection were standardized for WP4 and are being finalized for PIS. Main outputs of this WP are:
  - Technical reports on the observed and projected climate change over NHQ
  - Maps, plots, high resolution climate simulation and projection data for Vietnam and NHQ
  - Publication: 4 peer review articles and 4 international workshop proceedings
- 4) Water Disaster Assessment and Analysis (WP4): Almost all activities of this WP also have been done:
  - Technical reports on development of hydrological and hydraulic models for river networks in NHQ, development of advection/diffusion model for salinity intrusion
  - The historical and projected flood, inundation, salinity intrusion and water deficiency map series in NHQ
  - Data and maps are being finalized for the PIS
  - Publications: 2 international conference proceedings



- 5) Impact and Vulnerability Assessment (WP5): All survey households data have been collected, processed and analyzed. The obtained results are being finalized and standardized for the PIS. At least one more fieldwork to verify and finalize information is requested. Main outputs of this WP are:
  - Technical reports on the impacts of and vulnerability to climate change- induced water disasters on aqua-agriculture in NHQ
  - Thematic maps
  - Publications: 2 international conference proceedings
- 6) GIS-based Participatory Information System Development (WP6): The PIS has been developed and under completion before testing and transferring to local governments and communities. The outputs of this WP are:
  - Spatial were standardized and are used as referenced base for all other WPs
  - IT part of the system has been set up that consists of project website, ftp server for data exchange
  - PIS has been developed and is being tested
  - Publications: 01 international conference proceeding has been published and 01 international paper is being finalized

The main challenge during running the project is to screen three PhD students involving directly in the project research activities. The reasons are:

- 1) Following the Training and Education Law of Vietnam, the project is not allowed to directly enroll any graduate student (for both Master and PhD courses), but the candidates have to be screened through the Universities
- 2) There are only two times in the year (in May and in September) at which the candidates can propose their competitive enrolment to the Master or PhD courses
- 3) It is very difficult to screen the selected candidates who have appropriate study fields of the project.

To meet the outputs of project that “three PhD and four Master students will be directly involved in the project research activities” in the last year (2014) four selected PhD students have been screened and convinced to involve in the project by drawing their attentions to the project activities, data sharing mechanism of the project, utilization of the materials and results of the project for their studies and thesis dissertation as well as internship abroad.

Lessons learned:

- 1) Joint fieldwork and team working between Danish and Vietnamese researchers is very good approach to help young Vietnamese scientists to improve their knowledge and experiences, especially in writing interdisciplinary scientific articles

**The project progress on each of project objectives, outputs and outcomes must be entered into the LogFrame Matrix, Appendix 2a and uploaded to the report (Step 6)**

# Step 5

## Communication and Uptake

Communication and uptake strategy

Uptake and impact/effect

### Communication and uptake strategy

Outline the communication and uptake strategy to show how the project research will be accessible, actively disseminated, and communicated in a way that enables potential users to engage and make use of the research information, i.e. policy-makers, practitioners and other development actors.

Explain the status for the implementation of this strategy.

- 1) The information and outputs/results of the project will be uploaded to and published on the project website by both Vietnamese and English languages for internet users worldwide.
- 2) All static socio-economic and observed data, intermediate results, including simulated and projected results from Regional Climate Models and Hydrological and Hydraulic models will be uploaded to the ftp-server for sharing to all project researchers, related policy-makers, PhD and Master students,... The users can further develop their researches/applications based on these materials.
- 3) A web-based PIS system with large amount of data from all final project outputs, including documents, videos, photographs, voice records, maps, data, etc. to be conducted and used as tools for vulnerability reduction of climate change-induced water disasters. This system will be accessible for different levels: scientists, local policy/decision makers and communities. It should have a user-friendly interface, a flexible mechanism for users to interact and send their feedbacks.
- 4) Project's activity information to be disseminated through the media mass, conferences/workshops, working papers, scientific articles,...

### Uptake and impact/effect

Explain how these activities will lead to impact/effect.

Now TV, radio, Internet and Smart phone are popular in Vietnam. Project's activity information and outputs/results can reach everyone very quickly after publishing/dissemination.

**Publications, proceedings and other information must be accessible at the project website.**

**The research results should be published in open access formats whenever possible.**

**A publication and dissemination list (Appendix 2c) must be uploaded in Step 6.**

# Step 6

## Document upload

The following three appendices (2a, 2b and 2c) must be uploaded to the report.

### **Appendix 2a – Log Frame Matrix**

Template available as Appendix 2a to the General Conditions must be used and uploaded to the report.

### **Appendix 2b – Signatures**

Template available as Appendix 2b to the General Conditions must be used and uploaded to the report.

### **Appendix 2c – Publication and dissemination list**

Template available as Appendix 2c to the General Conditions must be used and uploaded to the report.

The total volume of the appendices must not exceed 5 MB.

You have attached 0 document(s).

Select a pdf-, jpg- or xls/xlsx-file, and press 'Upload'.

**You have attached 0 document(s) (.pdf .xls .xlsx), max 3**



Appendix 1b/2b – Signature Page – First Year / Mid Term Report

**Project title:** Climate Change-Induced Water Disaster and Participatory Information System for Vulnerability Reduction in North Central Vietnam (CPIS)

**Name of Responsible Institution:** VNU Hanoi University of Science (HUS)

**Project Coordinator:** Phan Van Tan

**DFC file number:** 11-P04-VIE

By signing, the Responsible Institution and Project Coordinator hereby confirm, that the information and data given in the First Year / Mid Term Report, including appendices, are correct.

*Head of Responsible Institution*

**Date:** March 25, 2015      **Printed name:** Nguyen Van Noi,  
Assoc. Prof. Rector

**Signature:**



*Project Coordinator*

**Date:** March 25, 2015      **Printed name:** Phan Van Tan,  
Prof. Dr.

**Signature:**