

## **Ph.D. Programs (3-Year Ph.D. Programs)**

### **Ph.D. in Disaster Management**

#### **1. Objectives**

Water-related disasters are intensifying in frequency and magnitude due to urbanization, industrialization, climate changes etc. throughout the world, causing devastating losses to human lives and livelihoods. They also seriously impede economic development.

It is increasingly evident that capacity development and human empowerment are the basis for resilient societies against disasters and sustainable development. In order to improve this basis, there is an urgent need for societies to increase their capacities for training researchers, educators and strategy/policy specialists for risk management.

It is to support countries in this respect that the National Graduate Institute for Policy Studies (GRIPS) and the International Centre for Water Hazard and Risk Management (ICHARM), Public Works Research Institute (PWRI) jointly launched a Ph.D. program in October 2010. The broad aim of the program is to nurture professionals who can train researchers and take leadership in planning and implementation of national and international strategies and policies in the field of water-related risk management

#### **2. Target Groups**

The disaster management Ph.D. program will accept one to three students per year. Applicants must have a Master's degree or equivalent professional knowledge, skills, and experience in research and/or practice in water-related risk management at universities, research institutes or governmental organizations. After completing the program, they are expected to return to their home organizations and take the lead in exercising what they acquired at ICHARM.

PWRI is seeking candidates for ICHARM Research Assistantship positions. If employed for the positions, students will be working at ICHARM as ICHARM Research Assistants. This provides an excellent opportunity for them to learn and experience the practical work of ICHARM while they carry out their own research. For those interested in the assistantship, visit the PWRI website for further information.

### **3. Outline**

The courses offered are taught entirely in English.

For international students, the usual residential requirement to complete a doctoral degree at GRIPS is three years.

At the end of the first year, doctoral students are expected to submit a thesis proposal and pass a Qualifying Examination. In order to be eligible for a Qualifying Examination for Doctoral Dissertation, students must earn a minimum of 8 credits from the courses offered. In addition, if a student is advised to take disaster management courses by his supervising committee, he or she is required to take these for up to 4 credits in Category I. After passing the Qualifying Examination, the students can begin working on their dissertation in the second academic year, aiming to complete the dissertation by the end of the third year.

After starting dissertation work, students are required to report on research that they are planning or working on, at Ph.D. Candidate Seminars.

In addition to the completion of the dissertation, at least two papers should be published in peer reviewed relevant international journals before the awarding of the degree. ("Publish" here includes acceptance for publication.)

### **4. Courses Offered**

#### 1) Disaster Management (2 credits each)

- Advanced Integrated Flood Management
- Advanced Hydrology
- Advanced Flood Hydraulics and Sediment Transport
- Advanced Mechanics of Sediment Transportation and River Changes
- Advanced Hydraulics

#### 2) Development (2 credits each)

- Advanced Disaster Mitigation Policy
- Advanced Topics in National Development Policy and Infrastructure Investment
- Advanced Disaster Risk Management

In addition, there are courses offered in the University of Tokyo.

## **5. Research Supervision**

For each student, a chief supervisor and 1-3 assistant supervisors will constitute a supervising committee who will give advice on a student's research work. Supervisors are appointed from either GRIPS or ICHARM teaching staff.