



School of Computing & Informatics, University of Nairobi
The Department of Land Resource Management and Agricultural
Technology (LARMAT), University of Nairobi

**Call for proposals to the 2012 University of Nairobi-IDRC Research Grants on
Innovative Application of ICTs in Addressing Water-related Impacts of
Climate Change**

**School of Computing and Informatics, University of Nairobi
The Department of Land Resource Management and Agricultural Technology (LARMAT),
University of Nairobi, Kenya**

**Supported by the International Development Research Centre (IDRC),
Ottawa, Canada**

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1. Objectives

The main objective of the proposed project is to strengthen the capacity of registered Masters and PhD students in universities in Africa, Asia and Latin America to more effectively engage in research on application of ICTs for water management under changing climatic conditions and attendant policy formulation.

The specific objectives of this grant Programme are to:

- (a) Train/support graduate students (Masters and PhD levels) to conduct research on ICTs, climate change and water through research awards.
- (b) Build institutional applied research capacity on ICTs and climate change adaptation strategies in the water sector within weakly funded postgraduate programs in the various universities in the three regions.
- (c) Increase inter-regional partnerships and collaborations among the participating institutions in this emerging area of applied research.

2. Eligible fields of study

Eligible/priority fields of study

Eligible research grants will address the various dimensions of how ICTs can be used to strengthen resilience and adaptive capacities of communities in developing countries to deal with water insecurity resulting from the changing climate.

Applications for the research grants will be accepted for research in the following priority thematic areas:

- (a) **Modeling and mapping of water resources, weather forecasting and climate monitoring using ICTs.** This theme welcomes applicants to explore how various ICT applications such as Climate Modeling in combination with Remote sensing and Geographical Information Systems (GIS) could be deployed in mapping, monitoring and forecasting patterns of water resource availability, accessibility and use within a changing climate.

- (b) **Use of ICTs to strengthen the capacity of vulnerable communities to deal with stress due to climate change.** This theme will explore how low-cost and emerging ICTs are assisting vulnerable communities employ innovative approaches to prepare for, respond and adapt to water-related impacts of climate change.
- (c) **ICTs in vulnerability mapping.** The theme will deal with the general assessment of vulnerability of water resources in order to identify the "hotspots" where climate change impacts are projected to become increasingly severe.
- (d) **ICTs in the "last mile" challenge of Early Warning System (EWS).** This theme seeks to explore the use of various ICTs such as: Radio, Telephone (Fixed and Mobile), Short Message Service etc. in developing and enhancing community preparedness in risk mitigation.
- (e) **ICTs in social learning and knowledge sharing.** This theme will explore the role of ICTs in fostering knowledge sharing and linkages on climate change and water-related issues at various levels (i.e. global, regional, national and local).
- (f) **Integration of indigenous knowledge with modern ICTs to cope with the hazards of climate change and water.** In this theme, the centrality of ICTs in improving the availability of indigenous knowledge and enhancing its blending with the modern scientific and technical knowledge within water and climate change sectors will be explored.
- (g) **ICTs in creating more effective governance mechanisms to manage scarce and changing water resources.** This theme will explore the type of ICT applications that can help to improve water-use efficiency at local levels and the role of ICTs in democratising water management.
- (h) **Strengthening the building of partnerships, networks and stakeholder collaboration through the use of ICTs.** This thematic area will explore how various ICT tools such as web 2.0 and social media can promote awareness, partnership building, networking, gender equity and stakeholder collaboration in water and climate change issues.

Proposals that address the overall research theme of ICTs, Climate Change and Water but differ from the themes outlined above, are still welcome and will

be evaluated according to the relevance of the research project to the specific country's needs and priorities on a case-by-case basis.

Additional details on the thematic areas can be viewed on the project website:
<http://www.ictwcc.or.ke>

3. Eligibility

Eligible countries

The countries that are eligible for this call are developing countries in Africa, Asia and Latin America.

Eligible students

The awards are only open to citizens of developing countries in Africa, Asia and Latin America and who must be studying in universities in these regions. Given the many languages spoken in the three regions, we shall restrict proposals received to English, French and Spanish.

Applicants must provide documentary evidence that they are enrolled in a relevant Masters or PhD programme in a university in one of the eligible countries (e.g. approved proposal) and a letter from the supervisor that they have started or would soon be starting their field research work. In addition, the applicant must commit to carrying out his/her research work in one of the eligible countries.

Applicants must provide demonstration of educational credentials through notarized copies of diploma/certificate(s) and transcript of grades, submitted directly by the educational institution of graduation. There must also be letters by University Faculty/School Dean stating that the applicant, at the time of the application for eligibility evaluation, is registered with the university.

The Selection Committee will verify information provided by candidates on academic background and status of current funding to make sure that funding goes to the most deserving students. The committee will take appropriate action in case an applicant is found to have cheated, including automatic disqualification and or possible termination of student enrolment by the hosting university. Any special considerations on the students' academic background (e.g. class and specialization of Bachelors and Masters degrees and relevance to ICT and climate change and water as well as to the themes

outlined above) will be enumerated in the selection criteria and used during the selection process.

4. Project duration

The award tenure of the research grants will be dictated by the category of awards that take the longest period as shown below. PhD awards will be for 18 months, while Masters Awards will be for 9 months. All grantees will be expected to publish during or after completing their thesis. There is additional funding available to present a paper in an international conference.

5. Value of grants and disbursement

Candidates for the research awards can apply up to a maximum of CA\$15,000 for PhD grantees and CA\$7,500 for Masters grantees. These are only indicative figures and due to the need to support a larger number of students from developing countries, strong proposals seeking modest funding support will receive high priority and have a higher chance of being awarded. These amounts exclude the cost of presenting a paper in a conference. There will be two disbursements. The first will be 80% of the project budget to cover the research costs once the student has been cleared by the supervisor to start field work. The second disbursement (20%) will be done once the student has submitted the final thesis (documentary evidence will be required). This final amount can then be used to produce the final bound copies for submission. To be eligible for the funds for publication(s), the grantee must have written a paper that has been accepted in an international conference.

6. Deadline for Applications

Deadline for application is September 14th 2012.

The completed application form as well as the support documents, including any enquiries should be forwarded as Ms Word e-mail attachments to:

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