



Alexandria Research Centre for Adaptation

# ARCA Newsletter

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## Note by the Editor

Despite that Egypt, and more specifically the Nile Delta, is expected to be one of the most affected countries by the impacts of climate change, there is no research and/or institutional framework to assess such impacts and how to adapt to them. In return we can find a number of research papers that aimed to assess mainly the physical impacts of climate change and associated sea level rise, with almost total lack of studies of the socioeconomic impacts and no involvement of different stakeholders.

"ARAC – Alexandria Research Centre for Adaptation to Climate Change", sponsored by IDRC – Canada, represents an attempt to build on what exists in the climate change arena. It intends, in this respect, to support institutional and multidisciplinary research capacities. It intends also to build research capacities that could support efforts of assessing the impacts, vulnerability and potential adaptation options in Egypt. This involves developing a capacity building program for researchers and policy and decision makers, with the capacity building activities for the former involving basic research skills and climate change related technical workshops. While building capacities of decision and policy makers involves awareness raising about climate change as well as encouraging participatory and collaborative work with different stakeholders. ARCA is supporting the capacities of researchers further through the provision of a small research grants.

## Capacity building program

The main objective of the capacity building program is to support researchers' capabilities in terms of basic research skills and technical knowledge and tools concerning climate change related issues. It also aims to raise their awareness about climate change related issues to build the capacities of different stakeholders concerning participatory work, as well as. In order to ensure smooth and effective implementation of this component and integration of this component into the overall framework of ARCA other activities, a plan was developed. This plan is intended to provide guidelines for training activities that will be carried out within ARCA. The plan for first year training activities involved carrying out seven workshops, of which six were intended for researchers, while the remaining one was intended for stakeholders including policy and decision makers. The training workshops organized covered a variety of topics ranging between climate change associated topics to basic research skills.

The number of applicants for our workshops could be seen as a sign that the topic covered are of great importance to researchers. Also, positive feedback for workshops are accompanied by requests being made by institutions asking for specific workshops to be held for the staff, for instance request made by the Medical Research Institute for the organization of the proposal writing workshop for their staff.

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## Training Workshops

### -Climate change: An introductory workshop

**Held on :** 16/02/2012

**Held at :** Alexandria Hilton Green Plaza

#### Background

Climate change is considered to be one of the most profound global challenges in the 21st century that can have wide range of impacts on natural as well as economic socio-cultural systems.

#### Objective of workshop

The main objective of this training workshop was to introduce participants to the domain of climate change, its impacts and vulnerabilities.

#### Instructors

- Prof. Ibrahim El Shenawi – Coastal Research Centre
- Dr. Guy Jobbins – IDRC
- Prof. Mohamed A. Abdrabo – Institute of Graduate Studies and Research (IGSR) – University of Alexandria.

#### Topics Covered

- An Introduction about ARCA's vision and detailed objectives
- Various physical aspects of climate change
- Vulnerability
- Various impacts of sea level rise and economic valuation of such impacts in Ras El Barr-Gamasa area, as a case study.

#### Participants

Out of 47 applicants 23 from different backgrounds and affiliations were selected.

### -Scientific writing

**Held on :** 20 - 22/03/2012

**Held at :** Alexandria Hilton Green Plaza

#### Background

Writing is a very important as the world will only judge the quality of work through the documents that explain it. Researchers always need to do lots of writing, for example Project documents, reporting, paper for publications in scientific journals and proposals.

#### Objective of the workshop

The main objective of the workshop was to develop the writing skills of the participants.

#### Instructors

- Prof. Sherif Kandil  
Institute of Graduate Studies and Research  
University of Alexandria

#### Topics Covered

- Elements of scientific writing.
- Using visuals effectively.
- Organization of materials.
- Searching the literature and collecting the report.
- Structure of the report/thesis.
- Good writing styles.

#### Participants

This workshop, due to its importance and general nature, had 102 applicants, of which 18 applicants from different research institutions were selected.

## Assessment of Socioeconomic impacts of climate change

**Held on :** 05 – 06 / 05 / 2012

**Held at :** Alexandria Hilton Green Plaza

### Background

Socioeconomic environment refers to a wide range of interrelated and diverse aspects and variables relating to or involving social and/or economic variables, or a combination of them.

### Objective of workshop

The main objective of this training workshop was to introduce participants to the domain of socioeconomic environment and assessment of socioeconomic impacts of sea level rise.

### Instructors

-Prof. Mohamed. A. Abd Rabo – IGSR – University of Alexandria

-Dr. Mahmoud A. Hassaan – IGSR – University of Alexandria

### Topics Covered

- The conceptual framework and methodology of socioeconomic impact assessment
- GIS as an assessment tool in this field
- Measuring vulnerability
- Economic valuation and the application of GIS in assessing socioeconomic impacts of sea level rise.

### Participants

Out of 55 applicants, 22 applicants from different research institutions were selected.

## Estimating Potential Impacts of Climate Change on Biodiversity

**Held on :** 26-28/05/2012

**Held at :** Alexandria Hilton Green Plaza

### Background

Socioeconomic environment refers to a wide range of interrelated and diverse aspects and variables relating to or involving social and/or economic variables, or a combination of them.

### Objective of workshop

The objective of this training workshop was to introduce participants to the domain of estimating potential impacts of climate change on biodiversity.

### Instructors

Dr. Lucia Fanini - Hellenic Centre for Marine Research, Crete Mindy Bahaa El Din – Biodiversity consultant

### Topics Covered

- The conceptual framework of diversity
- Biodiversity data management
- Biodiversity data and their application in society
- Climate change and biodiversity in Egypt

### Participants

Out of 59 applicants, 20 were selected from different academic research to participant in the workshop





## GIS for Socioeconomic Applications    How to Develop a Project Proposal

**Held on :** 2-3/06/2012

**Held at :** ARCA

### Background

Geographic Information Systems (GIS) are one of the most advanced techniques. The high analytical capabilities of GIS enable such systems to be adopted in various applications in particular those involving a wide range of spatially based data.

### Objective of workshop

The main objective of this workshop was to introduce participants to the domain of GIS and its socioeconomic applications.

### Instructors

-Dr. Mahmoud A. Hassaan  
IGSR – University of Alexandria

### Topics Covered

- The conceptual framework of GIS and the main steps to build a GIS for socioeconomic applications
- Attribute data entry
- Creating Digital Elevation Models
- Cartography with ArcGIS

### Participants

Out of the 43 applicants 10 from different disciplines were selected to participate in the workshop.



**Held on :** 13 - 14/06/2012

**Held at :** ARCA

### Background

Without direct project funding, most researchers cannot properly pursue their research activities or accomplish their goals. Writing a clear, thorough and targeted project proposal is therefore essential to researchers work.

A project proposal should be a detailed and directed manifestation of the project design. It is a means of presenting the project to the outside world in a format that is immediately recognized and accepted.

### Objective of workshop

The main objective of this training workshop was to introduce participants to the main elements of project proposal and improve participants' skills in developing quality project proposals.

### Instructors

-Prof. Mohamed A. Abdrabo  
IGSR – University of Alexandria.

### Topics Covered

- Contents of a typical project proposal
- General hints for proposal writing with particular emphasis on the proposal rationale, objectives and conceptual framework.
- Remaining contents of the project proposal such as workplan and activities, methods, project management and evaluation, partners, risks and uncertainties and budget.

### Participants

Out of 20 applicants, 8 were selected from different research institutions to participate in the workshop.

## Article: Climate change

Climate change is considered to be the most profound global challenge in the 21st century, as it represents not just an environmental challenge but a multidimensional one, affecting the essence of economic system as well as socio-cultural systems. The vulnerability of human and natural systems and thus the consequences of climate change would depend upon risk magnitude and exposure, sensitivity of these systems and their ability to adapt to such a risk. This means that the vulnerability of such systems and its adaptive capacities would differ with geographic location, time and socioeconomic and environmental conditions (IPCC, 2001). Developing countries are expected to face more damaging impacts due to lack of resources and limited capabilities that those countries have (Stern et. al., 2006).

The Middle East and North Africa region, as elsewhere, is expected to be affected by climate change impacts including higher temperature, raise in sea level and extreme weather events (e.g. flooding and long spells of dry weather). This will in turn have subsequent economic as well as socio-cultural impacts (e.g. lower agricultural productivity, significant decline in fisheries, bleaching of coral reefs and subsequent decline in tourism activities ..... etc.).

Egypt, in this respect, is expected to be one of the countries most

vulnerable to climate change, with some of the Nile Delta coastal low lands are expected to be inundated by sea level rise. Such a rise in sea level will also affect groundwater levels and salinity, which may in turn adversely affect agricultural activities as well as buildings and infrastructure in urban areas (MSEA, 2001).

Despite such a concern for vulnerability of different sectors in Egypt to climate change, very little efforts to quantify accurately future impacts of climate change and vulnerabilities at different levels have been actually undertaken. Moreover, it could be suggested that such efforts are mostly scattered and no inter-linkages between the research institutions or the projects were present. Furthermore, almost all such projects are missing a vital component, which are the socioeconomic impacts of such changes. It is worth mentioning that, as suggested before that climate change is not an environmental issue. It is rather a cross-cutting development issue that may affect all sectors in the country. For any efforts to attain their intended outcomes, they need to be well-coordinated, focused multidimensional and participatory, which means that part of the capacity building efforts should be directed not only towards the assessment process itself but also towards stimulating multi-disciplinary and participation in decision and/or policy making.



## The research grants program **Forthcoming ARCA Events**

ARCA research grants program is intended on one hand to support conducting research and to provide decision makers with relevant and timely information concerning issues related to potential impacts, vulnerability and adaptation to climate change in general and sea level rise in particular. Such a support, complemented by other activities of ARCA, can foster a spirit of collaboration and creating a system for knowledge sharing both intra and inter agency is one way to tackle the lack of cooperation and set into motion better knowledge of and action to address adaption to SLR, ultimately contribution to collaborative decision making processes.

The research themes for the first round of the small research program include:

- Vulnerability of Northern lakes to the impacts of climate change induced sea level rise.
- Modeling future socioeconomic profile of the Nile Delta coastal zone (up to 2050 and 2100).
- Propose and assess adaptation options to the impacts of climate change induced sea level rise.

A total of 15 concept notes were submitted and are going through two tiers process; pre-selection to be followed by more thorough technical evaluation by experts in their respective disciplines.



### **-Capacity building program:**

- Workshop on "How to develop a project proposal" (2nd round) ....August 2012.
- Workshop on "GIS for socioeconomic applications" (2nd round) ....August 2012.
- Workshop on "An introduction to economic valuation" ....September 2012.
- Workshop on "Vulnerability: A conceptual framework" ....October 2012.
- Workshop on "An introduction to remote sensing techniques" ....October 2012.
- Workshop on "Stakeholders analysis and consultation"....September 2012.
- Workshop on "Spatial Analysis using GIS" ....November 2012.
- Workshop on "GIS for socioeconomic applications" (3rd round) ....December 2012.

### **-ARCA Small Research Grant Program**

- Informing selected applicants of the 1st round of ARCA Research Grants Program ....July 2012.
- Call for proposal for the 2nd round of ARCA Research Grants Program ....November 2012.



## Project Staff

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