



### **Training Outline:**

#### ***Climate Change and Water Resources Management for Drought-Prone Areas***

The recent el Nino-induced drought has demonstrated just how vulnerable we are in terms of water availability and how much the situation can worsen for impoverished communities. Water resource scarcity is exacerbated by growing pressures from increasing population, as well as industrial and farming needs. Conflicting demands require management. Societies' ability to manage resource problems can be severely compromised by the increased frequency of extreme climatic events that are the consequence of climate change. Water resource management becomes a crucial element in drought preparedness.

**Target Audience:** This training is meant for practitioners, decision and policy makers working in the development/environment/climate change adaptation sectors and specifically those in disaster management, volunteers and staff working with organizations tasked with human development. This includes individuals working with government institutions, NGOs the UN, intergovernmental bodies and the private sector. Students and young professionals who would like to increase their knowledge in the field are also welcome.

**Duration:** 4 days

**Language:** English

## About this Course

The aim of the course is to contribute to reducing the vulnerabilities of people and societies to shifts in hydro-meteorological trends, increased variability and extreme events. This training course will focus on managing risk and dealing with uncertainty on climate change on water resources through various measures, including monitoring known hazards and risks, reducing the unknown risks through system research, and determining the range and type of relevant uncertainties. The course will also focus on the identification of adaptation measures with particular emphasis on droughts. It will also cover the important need to protect and restore ecosystems that provide critical land and water resources and services. The course will further discuss the need to close the gap between water supply and demand and to resolve water resources conflicts.

## Expected Outcomes

This training is intended to increase the participants' understanding about climate change and to explore possible solutions. There are actions that can be taken to prepare for a more variable climate and we can make a case to our policy makers to prepare for change. The most important immediate action concerns the way we manage our water resources. Improving our management of water today will prepare us to adapt tomorrow. Improved understanding of our water resources will allow more efficient and flexible allocation systems and better investment in infrastructure, both to improve access to water and reduce risks from climate change.

## Benefits

Participants will gain a better understanding of the factors that determine the vulnerability of the different sectors of society to climate change on the water and food security sectors. Likewise, the participants will be guided in preparing a strategic plan on risk management that can be applied in their respective contexts.

## Proposed Content

**NOTE:** *This content is subject to change and can be customized for your institution upon request.*

### Session 1: Introduction

- Understanding climate variability and climate change
- Effects of climate change on water resources
- Economic Impact of Climate Risks

### Session 2: Drivers and impacts of climate change

- Understanding drivers and the physical science basis of climate change
- Understanding observed and projected impacts on the water cycle
- Observed changes and trends in the water cycle
- Projections of future climate change impacts on the water cycle
- Impacts on ecological processes

### **Session 3: Climate change and agriculture**

- Impact of climate change on the agricultural systems.
- impact of climate change on agriculture sector in drought-prone areas
- Factors responsible for increased vulnerability to climate variability and change.
- Impact of climate change on rural livelihoods.

### **Session 4: Water Resources Management**

- What is Integrated Water Resources Management
- Importance of IWRM for adaptation to climate change
- How can IWRM help address climate change?
- Implementing IWRM

### **Session 5: Drought risk management in the context of climate change**

- Integrated drought management
  - Better scientific understanding for drought management;
  - Improved knowledge base, with better access to information, knowledge products and services
  - Drought early warning and information system
  - Risk assessment and risk mapping
  - Drought risk reduction and response
  - Building society resilience through national drought policies
  - Public awareness

### **Session 6: Strategy development and planning for adaptation in IWRM in drought prone areas**

- Political commitment, high-level engagement, strong institutional setting and governance
- Risk management through adaptation and mitigation
- National Water Program Strategy- Response to Climate Change
  - Water program adaptation to climate change
  - Water program education on climate change
  - Dialogue on climate change adaptation for land and water management
  - National water policies and integrated water resources management; water-related hazards management
- Challenges and opportunities of adaptation

### **Session 7: Methods for social participation and conflict resolution**

- Conflict issues in water resources management
- Power, social processes and water rights
- Approaches to conflict resolution
- Conflict resolution measures

### **Session 8: Practical Sessions**

Practical session scenario 1: Drought Risk identification and Strategy Development

Practical session scenario 2: Water Sharing Case Study

## Training fee

The **course fee of \$550 per participant** covers the course tuition, training materials, two break refreshments, lunch and certificates.

All participants will additionally cater for their travel expenses, accommodation, visa application, insurance, and other personal expenses. Accommodation and shuttle services can be arranged upon request. Gravitazz will also provide invitation letters for the trainings should it be necessary.

## Payment Information

Payment should be transferred to Gravitazz Institute bank account (See details below) 15 days before commencement of training. Please send proof of payment to [info@gravitazzcontinental.com](mailto:info@gravitazzcontinental.com)

**Account Holder:** GRAVITAZZ CONSULTING PTY LTD

**Bank:** FIRST NATIONAL BANK (FNB)

**Account Number:** 62598532862

**Branch Name:** GREENSTONE

**Branch Code:** 201510

\* **Swift Code** (for international payments): FIRNZAJJ

Please contact us should you require alternative payment methods.