

## **Training Workshop on “Flood Risk Management” in Senegal**

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*Organized Jointly by*  
**Statistical, Economic, and Social Research and Training Centre for Islamic Countries (SESRIC)**  
&  
**Islamic Development Bank (IDB)**  
**18-19 March 2013, Dakar, Senegal**

### **BACKGROUND**

Floods are one of the most threatening natural hazards for human societies. This is evident from the increase in damages in the last 50 years due to a series of extreme floods in different regions around the world. Catastrophic floods endanger lives and cause human tragedy as well as heavy economic losses. In addition to economic and social damage, floods can have severe environmental consequences as well. Due to the impact of climate change, the coming decades are likely to see higher flood risks and greater economic damages in different regions around the world.

Flood is the most widespread type of natural disasters in OIC member countries. The total number of floods in OIC countries reached 909 during the period 1980-2011, making up 38% of total number of natural disasters. Affecting over 330 million people during the same period, flood alone accounted for more than half of the total number of people affected from all natural disasters. In terms of occurrence, floods were the most widespread type of natural disaster recorded in Senegal during 1980-2011. They affected almost one million people during the same period and cost almost 50 million USD.

Flood is also one of the most destructive types of disaster to property, crops and infrastructure. In this connection, a natural hazard, like a flood, turns into a disaster if there is a significant vulnerability in the same environment to the disaster. Lack of capacity and capability to manage different types of natural disasters, including floods, exceedingly increases vulnerabilities in many OIC countries. Given this state of affairs, the need to prevent the recurrent problem of floods and their destructive impacts has been one of the major concerns of many OIC member countries.

### **FLOOD RISK MANAGEMENT**

Though floods are natural phenomena, their likelihood and/or impacts could be reduced and limited through right measures and adequate risk management approaches. To manage extreme flood events and their adverse impacts on people and properties, practitioners and scientists argue for a shift from the previous traditional paradigm of “flood protection” to “flood risk management”. Absolute protection is both unachievable and unsustainable, because of high costs and inherent uncertainties. Instead, “flood risk management” has been recommended as being more suitable and this paradigm is now receiving growing attention in both literature and practice of flood risk management.

Flood risk management aims to reduce the likelihood and/or impact of floods. Experience has shown that the most effective approach is through the development of flood risk management programmes incorporating the following elements:

- **Prevention:** preventing damage caused by floods by avoiding construction of houses and industries in present and future flood-prone areas; by adapting future developments to the risk of flooding; and by promoting appropriate land-use, agricultural and forestry practices;
- **Protection:** taking measures, both structural and non-structural, to reduce the likelihood of floods and/or the impact of floods in a specific location;
- **Preparedness:** informing the population about flood risks and what to do in the event of a flood;
- **Emergency response:** developing emergency response plans in the case of a flood;
- **Recovery and lessons learned:** returning to normal conditions as soon as possible and mitigating both the social and economic impacts on the affected population.

Integrated flood risk management aims to reduce the human and socio-economic losses caused by flooding. Usually, following a severe flood event, the need for an effective strategic approach to flood risk management is widely acknowledged. However, developing a risk-based strategy is a difficult task. It is not easy to maintain political support for flood risk management in all relevant policy fields. As a consequence, flood risk issues are often outweighed in political and administrative decision processes. Furthermore, a strategic flood risk management approach requires continuous cooperation between various national and regional institutions such as water authorities, local planning and civil protection authorities, and regional bodies. But cooperation is always costly in terms of time, financial and human resources. Therefore, in many cases, the request for a strategic approach to flood risk management does not suffice.

#### AIMS & OBJECTIVES OF THE WORKSHOP

The training workshop on “Flood Risk Management (FRM)” in Senegal is one of the initial efforts of SESRIC and IDB towards enhancing the capacities of the relevant national institutions dealing with natural disaster risk reduction management in OIC member countries. The workshop will offer a distinct opportunity and practical approach to transfer the knowledge, know-how, experience and best practices of some member countries (mainly Turkey and Indonesia) and international organizations in the field of flood risk management.

The two-day training workshop is planned to provide Senegalese staff in relevant flood risk management authorities/institutions the knowledge and experience on: (1) Various concepts and approaches for various phases of flood risk management: risk analysis, prevention, protection, preparedness, response and recovery; and (2) Best practices of flood risk management in some member countries: lessons learned from both successful and failed experiences. The workshop will enable the participants to:

- Improve their knowledge on the causes of flooding; risk analysis, mapping and different flood forecasting models and policy; assessment of flood damages; and to provide information on flood mitigation measures and their advantages and disadvantages.
- Understand and explain the main concepts and principles of flood risk management.
- Develop administrative, managerial and professional skills in the practice of flood hazard mitigation.
- Learn from success and failure stories; actual experience of some member countries in flood risk management.

- Understand and analyse various contributing factors to disaster and create recommendations appropriate to flood situation in Senegal.
- Learn about the facilities available in relevant international organizations on how to formulate and implement strategies for flood risk management.
- Learn about vulnerability (consequences on receptors): Risk perception, community behaviour and social resilience.

## PARTICIPANTS

### 1- Trainees “Beneficiaries”

The workshop is designed for and targeted the staff of national Senegalese institutions and authorities concerned directly and/or indirectly with flood hazard and reduction of vulnerability to floods. Those may include, among others, water professionals (engineers and scientists), city planners and decision-makers and others involved in flood modelling and flood management, particularly those who would like to be familiarise with the latest tools and techniques in flood risk management. The targeted beneficiaries of the workshop is specially national and local administrators/officers, development and planning authorities, flood control professionals, officials and staff of national ministries/agencies in infrastructure, urban planning, civil protection, and water resource development and management. Private sector representatives –including the private land and settlement developers, infrastructure developers and insurance agents–, officials and personnel of relief, humanitarian affairs and rehabilitation agencies, and NGOs involving in disaster mitigation, especially on flood mitigation, are also certain to benefit from the workshop.

### 2- Trainers “Resource Persons”

The trainers “resource persons” who will provide the training and lectures during the workshop will be selected experts from relevant national and local government institutions in some member countries (mainly Turkey, Indonesia and Pakistan) as well as from relevant international organizations, educational and research institutions, water resources and flood hazard mitigation specialists.

## FORMAT & CONTENT

The two-day training workshop will be structured around 9 Sessions. In addition to the opening session in the first day, 8 working sessions and 1 panel session are planned to be provided by resource persons/experts from member countries and international institutions.

## DATE, VENUE & LANGUAGE

The workshop will be held in 18-19 March 2013 in (Le Meridien King Fahd Palace Hotel), Dakar, Senegal. The language of the trainers “resource persons” and their presentations is English. Though, simultaneous translation in both English and French will be available, it is preferable that participants are fully conversant in English.

## ORGANIZERS

SESRIC, IDB, relevant national Senegalese authorities/institutions/Ministry.