

# SUB-PROJECT COMPLETION REPORT

## *"JHELUM TAWI FLOOD RECOVERY PROJECT"*



*FUNDED BY WORLD BANK*

*LOAN NUMBER: IDA 56950*



### COMPONENT-V

## Strengthening of Disaster Risk Management Capacity

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## 1. Introduction

### 1.1 Project Background

In September 2014, Jammu & Kashmir experienced torrential monsoon rains in the region causing major flooding & landslides. The continuous spell of rains from September 2-6, 2014 caused Jhelum and Chenab Rivers as well as many other streams/tributaries to flow above the danger mark. The Jhelum River also breached its banks flooding many low-lying areas in Kashmir, including the capital. In many districts, the rainfall exceeded the normal by over 600%. The Indian Meteorological Department (IMD) records precipitation above 244.4 mm as extremely heavy rainfall and J&K received 558mm of rain in the June – September period as against the normal 477.4 mm. For example, the district of Qazigund recorded over 550 mm of rainfall in 6 days as against a historic normal of 6.2 mm over the same period.

Due to unprecedented heavy rainfall the catchment areas particularly the low lying areas were flooded for more than two weeks. Some areas in urban Srinagar stayed flooded for 28 days. Water levels were as high as 27 feet in many parts of Srinagar. The areas from the main tributaries of river Jhelum vis-à-vis Brenginallah, Vishavnallah, Lidernallah and Sandrannallah started overflowing due to the heavy rainfall causing water levels in Jhelum to rise. Subsequently, the discharge of the river Suran was 200 thousand cusecs as against an average of 50 thousand cusecs. With the excessive discharge of water, the river Suran affected the basin areas and also took a different course at various locations causing damages to the surrounding villages in the catchment area. Water levels also increased in the rivers of Chenab and Tawi, both of which were flowing above normal levels. Due to the rivers overflowing nearly 20 districts of the State were impacted.

A Joint team led by the Department of Economic Affairs (DEA), GoI, with representation from the World Bank visited J&K on October 21, 2014. Subsequently, GoI has sent a request to the World Bank on January 5, 2015 to field a joint Rapid Damage and needs Assessment (RDNA) Mission within the State. In response, a mission of the World Bank visited the State during February 1-6, 2015 in order to produce a rapid multi-sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211.975 Million, most of it to housing, livelihoods; roads and bridges which combined represented more than 70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

**Based on the Rapid Damage Needs Assessment (RDNA):** Results, restoration works underway and discussion with the GOJ&K, the project will focus on resorting critical infrastructure using international best practice on resilient infrastructure. Given the state's vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features and will include contingency planning for further disaster events. Therefore, the project aims at both restoring essential services disrupted by the floods and improving the design standard and practices in the state to increase resilience.



**1.2 Project Development Objective:** The Project Development Objective (PDO) is to support the recovery and increase disaster resilience in targeted areas of the state and increase the capacity of the state entities to respond promptly and effectively to an eligible crisis or emergency.

### **1.3 Project Components:**

The project is comprised of the following seven components:

1. Reconstruction and strengthening of critical infrastructure (US\$ 50 million)
2. Reconstruction of Roads and Bridges (US\$ 55 million)
3. Restoration of Urban Flood Management Infrastructure (US\$ 40 million)
4. Restoration and strengthening of livelihoods (US\$ 15 million)
5. Strengthening disaster risk management capacity (US\$ 25 million)
6. Contingent Emergency Response (US\$ 45 million)
7. Implementation Support (US\$ 20 million).

Total Amount is US\$ 250 Million.

### **Component 5 – Strengthening disaster risk management capacity, US\$ 25 million**

The objective of this component is to enhance the capabilities of the implementing entities in managing disaster risks, enhancing preparedness, and achieving resilient recovery. This component will entail the following:

**Sub-component 5.1:** Capacity building for disaster management (US\$17 million): To finance strengthening of the disaster management systems in the region by augmenting the capacity of stakeholders and institutions. The activities will include: i) capacity building of the state disaster management authority by strengthening its institutional and organizational structure, staffing, and resources and funding of training programs and regular drills for the emergency operations center staff and Disaster Management Officers at various levels; ii) strengthening the Disaster Response Force; iii) setting up a Decision Support System (DSS) and Emergency Operation Centers to integrate and analyze information from multiple sources in an integrated geo-spatial system.

**Sub-component 5.2:** Technical support for risk reduction and response preparedness (US\$8 million). To finance activities such as: i) preparation of a Hydro-meteorological Resilience Action Plan focusing on extreme weather events to develop resilience solutions/recommendations and a robust, fail-safe EWS in the region including optimum use of strengthened networks and facilities; ii) River Morphology Study for some key rivers impacted by the disaster and to analyze and identify critical protective infrastructure works needed for river bank strengthening; iii) Urban vulnerability assessment study with specific focus on seismic risk mitigation to undertake detailed urban vulnerability analysis and model various risks for effective mitigation planning and disaster response preparedness; iv) Upgrading design guidelines and material specification for construction in seismic zones in order to carry out an update of current

construction design standards and material specifications to align them with national and international best practices; v) Disaster Risk Financing and Insurance (DRFI) to work out options to increase the resilience of the PIE's financial response capacity to secure cost-effective access to adequate funding for emergency response, reconstruction, and recovery.

This project completion report comprises of the sub-projects completed under the component No. 5 as follows:

**Strengthening Disaster Risk Management Capacity:** Under this Component there are 22 sub projects (mentioned below) out of which 19 sub-projects have been successfully completed:

- a) Building – 1 no.
- b) Equipments – 15 nos.
- c) PRI Kits – 1 no (4000 Nos kits).
- d) Consultancies – 4 nos.
- e) Software Development – 1 no.

## **2. Executive Summary:**

- **Objective:** The objective of this component was to Strengthening disaster risk management capacity in the State of Jammu & Kashmir. Under this Component there were 22 sub projects which are; Construction of SEOC Building (1 no), Procurement/Supply of 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) Consultancies (4 nos) and Software Development (DSS-1no) by the PMU-JTFRP
- **Summary of Achievement:**
- All the 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) were procured & supplied as per Allotted cost and delivery time.
- Construction of SEOC Building (1 no) is in progress at this stage.
- Out of 4 nos Consultancies only 02 nos have been completed.
- Software Development (DSS-1no) is also completed under this component.

**2.1 Introduction & Background:** Under this Component Construction of SEOC Building (1 no), 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) Consultancies (4 nos) and Software Development (DSS-1no) by the PMU-JTFRP authority and approved by the World Bank under JTFRP (J&K).

**2.2 Project Detail:** Construction of SEOC Building (1 no), 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) Consultancies (4 nos) and Software Development (DSS-1no) has been taken up as per the specifications provided/approved by the concerned authority below are the details of the sub-projects completed under this component.

### **2.3 Contract details of the completed sub-projects (19) under this component:**

| <b>S. No.</b> | <b>Identified Activity/Work</b>  | <b>Consultant / Contractor Name</b> | <b>Awarded/Revised (INR Crore)</b> | <b>Start Date</b> | <b>Date of Completion</b> |
|---------------|--|-------------------------------------|------------------------------------|-------------------|---------------------------|
| 1             | Supply of CSSR equipment: Angle cutter, circular saw, Gas cutter, Regulator for gas cutter, Rubber pin duplin, Diamon chain saw, Multi cable winch, Personal alert safety system, Hydraulic jack, Ramset, Combination cutter/spreader, Air lifting bag, Come-along | M/S Brijbasi Fire Safety Syastem    | 6.71                               | 05-Jan-18         | 5-May-18                  |
| 2             | Procurement of 75 HP Fibre Motor Boats (10 nos) & 25 HP Inflatable Motor Boat, seating capacity 12 persons (20 Nos)  | M/s Aska Equipments.                | 4.06                               | 04-Feb-17         | 4-Jun-17                  |
| 3             | Supply of the following Water Rescue equipments:<br>(i). 14 nos Inflatable rubber boats with OBM 25 HP.<br>(ii). 14 nos Fibre motorized Boats with OBM 75 HP, seating capacity 12 persons.   | M/S Gee Pee Reinforced products     | 3.54                               | 16-Jan-19         | 16-May-19                 |
| 4             | Rope delivery guns   | M/s Aska Equipments.                | 2.31                               | 14-Jun-19         | 14-Oct-19                 |

|    |   |   |      |           |           |
|----|---|---|------|-----------|-----------|
| 5  | Procurement of lifebuoy tubes   | Malik Trade Centre                                | 0.12 | 24-Jun-19 | 24-Dec-22 |
| 6  | Procurement of life saving jackets  | Galvanizers India                                 | 0.02 | 25-Jun-19 | 25-Aug-19 |
| 7  | Supply of underwater video cameras-5 Nos  | M/s Joytech Engineering and Marketing consultants | 1.18 | 14-Jan-19 | 14-May-19 |
| 8  | Package-03: Supply of inflatable lighting towers  | M/s Aska Equipments.                              | 0.54 | 01-Feb-19 | 1-Jun-19  |
| 9  | Procurement of 05 KVA Portable Diesel Gensets (22 no)   | M/s H.I Tech Motors                               | 0.26 | 15-Apr-19 | 15-Aug-19 |
| 10 | Package-04: Supply of mobile snow cutting machines  | M/s BU Combines                                   | 0.09 | 08-Mar-19 | 8-Jul-19  |
| 11 | Supply of chassis and fabrication of 16 Ton Chassis of 17 nos Multipurpose fire tenders (lot 1) | M/s Siri Tecon<br>M/s Tek Chand and Sons          | 6.63 | 29-Nov-19 | 29-Mar-20 |
| 12 | Supply of chassis and fabrication of 16 Ton Chassis of 17 nos Multipurpose fire tenders (lot 1) | M/s Siri Tecon<br>M/s Tek Chand and Sons          | 2.94 | 29-Nov-19 | 29-Mar-20 |



|    |   |                                   |       |           |           |
|----|---|-----------------------------------|-------|-----------|-----------|
| 13 | 17 units Medium Weight Quick Response vehicles (lot 3 )   | M/s Siri Tecon                    | 1.73  | 11-Feb-20 | 11-Jun-20 |
| 14 | Procurement of Portable Dewatering Pumps (20 Nos)   | M/s Sun India fire safety systems | 0.75  | 24-Aug-20 | 24-Dec-20 |
| 15 | Supply of 17: Hydraulic spreader cutter/combi tools, Ramps/hydraulic jacks, fire entry suits, fire proximity suits, breathing apparatus sets, water jet blankets                                    | M/s Sun India fire safety systems | 2.13  | 07-Jan-19 | 7-May-19  |
| 16 | Procurement of search and rescue kits for PRIs  | M/S MEDI HEALTH Care Pvt.Ltd.     | 16.28 | 02-Feb-21 | 5-May-18  |
| 17 | Consultancy services Upgrading Design Guidelines and Building Codes cum material Specification with respect to Multiple Disasters in the State of J&K with Specific reference to Seismic zone 4 & 5 | TARV -VMS (JV)                    | 1.61  | 12-Jan-19 | 14-Oct-19 |
| 18 | Consultancy for Hazard & Risk vulnerability assessment study with specific focus on seismic risk mitigation of J&K.   | RMSI Pvt Ltd                      | 20.61 | 25-Jul-18 | 24-Dec-22 |
| 19 | Development & Commissioning of Decision Support System for JKSDMA.  | RMSI Pvt Ltd                      | 10.00 | 10-Jun-20 | 25-Aug-19 |

### 3. RESULTS :

- **Deliverables:**
  - All the 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) were procured & supplied as per Allotted cost and delivery time.
  - Out of 4 nos Consultancies only 02 nos have been completed.
  - Software Development (DSS-1no) is also completed under this component.
- **Performance Metrics:** All the 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) were procured & supplied as per Allotted cost and delivery time  
Out of 4 nos Consultancies only 02 nos have been completed.  
Software Development (DSS-1no) is also completed under this component.
- **Quality Assurance:** Regular inspections by PMU and TAQAC team ensured adherence to construction best practices and high quality outcomes.

### 4. LESSONS LEARNT:

- The specifications and the requirements list should be forwarded to the PMU for the review/better transparency prior to the procurement/supplies of the Medical equipments.
- A strong PMU with a clear mandate, a high level of state ownership, requisite staffing in the PMU and PIUs, retention of trained staff for a reasonable span of time (at least 3 years), and adequate capacity development support are critical for timely implementation of projects.

### 5. CONCLUSION:

- **Summary:**
  - All the 15 no's Disaster Risk Management Equipments, PRI Kits (4000 nos) were procured & supplied as per Allotted cost and delivery time.
  - Out of 4 nos Consultancies only 02 nos have been completed.
  - Software Development (DSS-1no) is also completed under this component.
- **Impact:** With the completion of these procurements/supplies the SDRF, F&ES, Panchayats & DMRRR got enhanced in most of the remote areas of the UT of Jammu & Kashmir.

## 6. Pictures of the Equipments:

### 1. Medium Weight Quick Response Vehicle:



### 2. Regular Fire Tender:





### 3. Multipurpose Fire Tender:



### 4. PRI Kits:





## 5. Inflatable Rubber Boats:



## 6. Fibre Boats:





**END OF REPORT**