

Chapter-1
Reconstruction of Infrastructure Post
2013 Disaster in Uttarakhand-
An Overview

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1.1 The 2013 disaster

Uttarakhand witnessed a devastating natural disaster during 15 to 17 June 2013 in the form of cloud bursts and heavy (64.5-124.4 mm) to very heavy rainfall (124.5-244.4 mm) in most parts of the higher reaches of Himalayas. This unprecedented rainfall in Yamunotri, Gangotri, Badrinath, Kedarnath and the mountainous terrain along the routes resulted in sudden increase in water levels giving rise to flash floods in the Mandakini, the Alakananda, the Bhagirathi and other river basins, and caused extensive erosion and triggered landslides at various locations in the State.

The flash floods and landslides caused widespread destruction and heavy losses to physical infrastructure, agriculture field, human and animal lives. Numerous landslides and toe-erosion¹ by the sediment loaded rivers caused breaching of roads/highways at many locations and washed away several bridges (steel girder bridges, beam bridges, suspension/cable bridges). Traffic was also disrupted along all national highways and link roads in the State along with disruption of telecommunication lines, all adding to the impact of the disaster.

The worst impact was witnessed in the Mandakini river valley around the Kedarnath shrine in Rudraprayag district and its downstream areas. The entire Kedarnath town was converted into a dumping ground of glacial debris and boulders within a short span of time (*as can be seen from the photographs*). In downstream of the Mandakini valley, the Rambara town was completely destroyed while the Gaurikund and Sonprayag towns were also badly affected.



This tragic event coincided with the peak tourist and pilgrimage season within the State which significantly increased the number of casualties, missing, and affected populace, thereby compounding the impact of the disaster. According to the State Government sources, around a thousand human lives were lost; over 5,400 persons went missing; and over 70,000 tourists and 1,00,000 local inhabitants were left stranded in the upper reaches of the mountain terrain.

¹ Wearing away of the banks of the river which occurs when flow is in the direction of a bank at the bend of the river and the highest velocity is at the outer edge of the river.

The State of Uttarakhand comprises 13 districts spread over two regions (Garhwal and Kumaon) and has a total geographical area of 53,484 square km. As per National Census of 2011, the population of the State was 1.01 crore of which the rural population constituted about 70 *per cent*. The economy of the State primarily depends on agriculture and tourism. The June 2013 disaster impacted all the districts. The higher Himalayan districts of Pithoragarh, Bageshwar, Chamoli, Rudraprayag and Uttarkashi were the most affected by this disaster.



1.2 Disaster management framework in Uttarakhand

1.2.1 Legislative Framework

Government of India (GoI) notified the Disaster Management Act in December 2005, followed by a National Policy on Disaster Management in 2009. The policy lays down the institutional, legal, financial and coordination mechanism at the National, State and local levels.

The National Disaster Management Authority (NDMA) at the national level, the State Disaster Management Authority (SDMA) at the State level and the District Disaster Management Authority (DDMA) at the district level have been provided as part of the institutional framework under the Act.

1.2.2 Institutional Framework

The Disaster Management Department (DMD), Government of Uttarakhand (GoU) headed by a Secretary is the nodal Department responsible for coordinating/implementing all disaster management related activities. The DMD functions through a three-tier institutional framework, as has been described below:



1.2.3 Management of Medium & Long Term Reconstructions Works

After the 2013 disaster in Uttarakhand, each Sub-Divisional Magistrate was delegated special powers for speedy clearance of projects pertaining to immediate/urgent nature works funded from National/State Disaster Response Fund (NDRF/SDRF). However, the work of Medium & Long Term Reconstructions (MLTR) was assigned to the respective line departments and dedicated programme implementing units (PIUs) set up for the purpose.

1.3 Audit objectives

Consequent upon the massive disaster in Uttarakhand (June 2013), the GoI approved (January 2014) a special package of ₹ 6,259.84 crore for 'Medium and Long Term Reconstruction' (MLTR) in the State.

The Performance Audit was undertaken to assess the efficiency and effectiveness of State Machinery in utilising and managing funds made available by GoI and external agencies and implementing various projects through its line departments.

The objectives of the Performance audit were to ascertain whether:

- the management of allocated funds at each level was adequate to ensure optimum utilisation and timely completion of the projects;
- identification and assessment of damages to assets were realistic and done timely;
- prescribed system/procedure for planning and project clearance of restoration works was duly followed by every implementing agency/department and there was no duplicity in sanctioning a work under various components of the disaster package;
- the overall management/execution of post disaster reconstructions by the designated agencies/departments was economical, efficient and effective; and
- the reconstruction activities were supervised and monitored adequately by the designated authorities of the PIU/ departments/ agencies for providing assurance on quality of works executed.

1.3.1 Scope, Limitation and Coverage of Performance Audit

The Performance Audit was conducted between May and November 2017 for coverage of MLTR works sanctioned between January 2014 and March 2017. However, the financial position and status of MLTR works were subsequently (July/August 2018) up-dated to March 2018. The audit was focused only on those works which got damaged in the 2013 disaster and were sanctioned in MLTR package. The issues relating to immediate Response, Relief and Restoration activities of this Natural Disaster (June 2013) in Uttarakhand had already been covered in separate Performance Audit Report.²

² The CAG's State Audit Report (No. 02 of 2015) for the year ended 31 March 2014.

Audit covered

- Five severely affected districts (Bageshwar, Chamoli, Pithoragarh, Rudraprayag and Uttarkashi) out of total 13 affected.
- 90 project implementing units (PIUs)/offices of five sampled districts out of total 143 implementing units and 21 State level nodal offices/departments and 32 nodal offices.
- The State level nodal offices (Directorate/Project Management Unit (PMU)/PIUs) of each Sector of funding excluding 11 nodal offices/ departments dealing with SPA-R and CSS-R due to low or nil allocation of earmarked funds. A summarised position of the selected nodal offices is depicted in **Table 1.1** below:

Table-1.1: Summarised position of the selected nodal offices as mandatory units

Source of funding	Total number of Nodal Units ³	No. of Nodal Units selected	Name of departments/schemes which was not considered for audit coverage due to low or nil allocation of funds
SPA-R	10	08	SPA-R: 1. Animal Husbandry 2. Fisheries. CSSs-R: 1. Urban Development (Jawaharlal Nehru National Urban Renewal Mission and Rajiv Awas Yojana) 2. Housing and Urban Poverty Alleviation (National Urban Livelihood Mission) 3. Rural Development (Mahatma Gandhi National Rural Employment Guarantee Scheme and Indira Awas Yojna) 4. Home Affairs (Border Area Development Programme) 5. Health and Family Welfare (National Rural Health Mission) 6. Drinking Water and Sanitation (National Rural Drinking Water Programme) 7. Animal Husbandry, Dairy and Fisheries (National Livestock Management Programme and National Plan for Dairy Development) 8. Sports (Panchayat Yuva Krida aur Khel Abhiyaan) 9. Environment and Forests (National Ganga River Basin Authority).
CSS-R	14	05	
EAPs	10	10	
SDRF	01	01	
Total	32	21	

- 483 number of works costing ₹ 1,681.52 crore out of total 2,359 sanctioned works (₹ 4,122 crore) of the selected PIUs were audited which accounted for 20 *per cent* in terms of number of works and 41 *per cent* in terms of sanctioned costs.

1.3.2 Procedure adopted for selection of units/offices and works

Considering the complex nature of funding pattern and large number of units involved, the following steps were adopted for selection of units and works under each unit.

Step-1: Preparation of district financial profile

A financial profile for each selected district was prepared for each category of funding given to the PIUs/district level implementing units/offices under Special Plan Assistance-Reconstruction (SPA-R), Centrally Sponsored Schemes (CSS-R), two Externally Aided Projects (EAPs) and National/State Disaster Response Funds (NDRF/SDRF).

³ Three nodal units (Tourism, Irrigation & Flood Control and Women Empowerment & Child Development) of SPA-R and CSSs-R works were common.

Step-2: Selection of district level Units

All the PIUs of a district were categorised based on cumulative total of allocated funds and units for coverage of audit was decided as per criteria given in **Table-1.2** below:

Table-1.2: Categorisation and selection criteria of Units for coverage of audit

Cumulative total of allocated funds	Categorisation of Units	Selection criteria ⁴ (sample size taken)	No. of selected Units
₹ 10 crore & above	A	100 per cent Units	43
₹ 5 to 10 crore	B	75 per cent Units	07
₹ 2.5 to 5 crore	C	50 per cent Units	21
Up to ₹ 2.5 crore	D	25 per cent Units	19

A list of all the units for coverage of this Performance Audit as per the procedure given above is given at **Appendix-1.1**.

Step-3: Selection of works within selected Units

Within each selected unit, the percentages of works selected for performance audit (PA) were as under:

Table-1.3: Criteria for selection of works within selected PIUs

Units having total works	Percentage of works selected for PA
Up to 10 works	50 per cent of total works subject to minimum five
Above 10 and up to 25 works	30 per cent of total works subject to minimum five
Above 25 works	15 per cent of total works subject to minimum eight
<ul style="list-style-type: none"> The selection was based on sanctioned costs of the works arranged in descending order. The un-started and held-up works were also examined for ascertaining the reasons. 	

In addition, keeping in view the criticality of water supply schemes towards restoration of normalcy, UEAP funded water supply schemes under were also taken up for examination by Audit.

Joint physical inspections (one work of each Unit) were also conducted wherever possible with the representatives of implementing units to know the actual status of work being implemented.

1.3.3 Audit criteria

The audit criteria were derived from the following sources:

- National and State Disaster Management Acts and various guidelines issued thereunder;
- Uttarakhand Procurement Rules and other State Financial Rules applicable for management of funds and execution of works;
- Technical specifications and norms required to be followed during reconstruction of damaged infrastructure and public properties;

⁴ Selection of category B, C and D units was based on cumulative total of allocated funds arranged in descending order.

- Terms and conditions laid down in the agreements signed with Asian Development Bank and World Bank for EAPs and provisions of their implementation manuals (Project Administration Manual and Project Appraisal Document); and
- Terms and conditions of orders issued by the GoI and the GoU pertaining to sanction and release of funds for reconstruction and restoration of the damaged infrastructure.

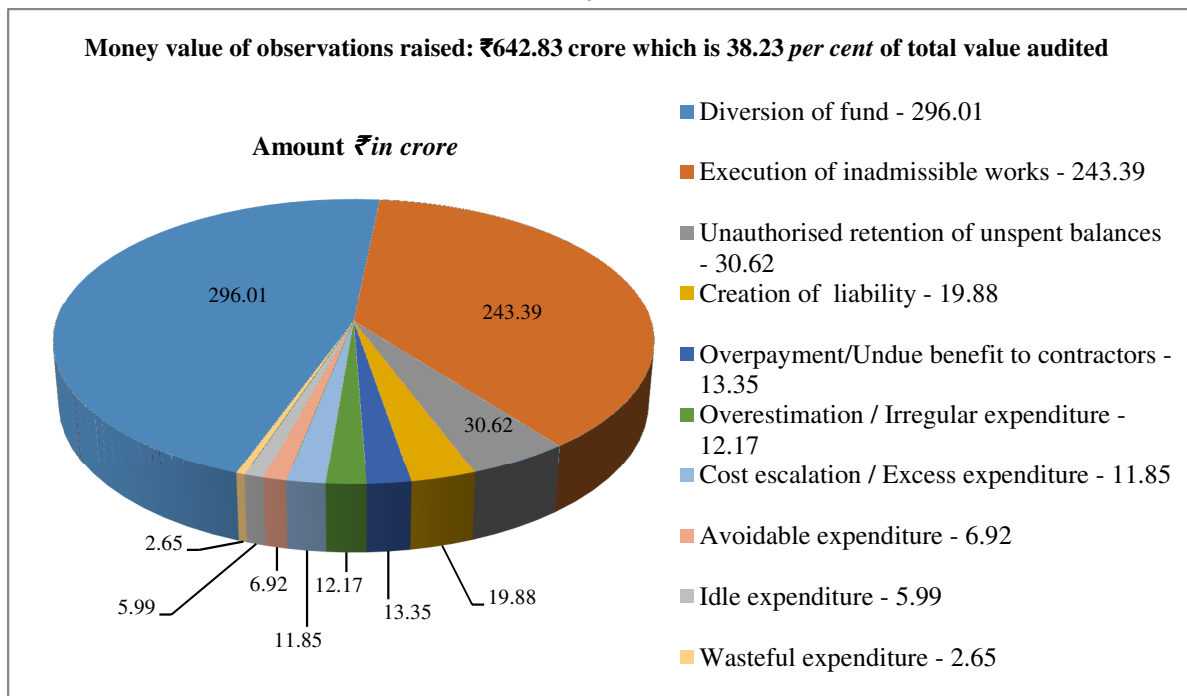
1.3.4 Entry and Exit conferences

Before commencement of the audit, the audit objectives, criteria, methodology and timeframe of the Performance Audit were discussed (27 April 2017) with the Secretary, Department of Disaster Management, GoU in an Entry Conference. The audit findings were discussed in an Exit Conference (1 February 2018) with the Secretary, Disaster Management Department and other departmental heads/representatives of the Nodal Agencies. The replies/views of the Government have suitably been incorporated in the report at appropriate places.

1.3.5 Organisation of audit findings

Audit findings are reported in **four** Chapters. **Chapter-2** discusses the audit findings relating to Management of Funds; **Chapter-3** brings out the issues related to sectoral planning and reconstruction of the damaged infrastructure; **Chapter-4** covers issues related to ‘Supervision, Monitoring and Quality Control’ of reconstructions works. **Chapter-5** brings out Conclusion and Recommendations of Audit. Summary of audit observations is given in the **Chart-1.1** below:

Chart-1.1: Summary of audit observations



1.4 Acknowledgement

Audit acknowledges the co-operation and assistance extended by the district level programme implementing units/offices, DDMA of sampled districts, USDMA and the Disaster Management Department, GoU at various stages during the conduct of this performance audit.