

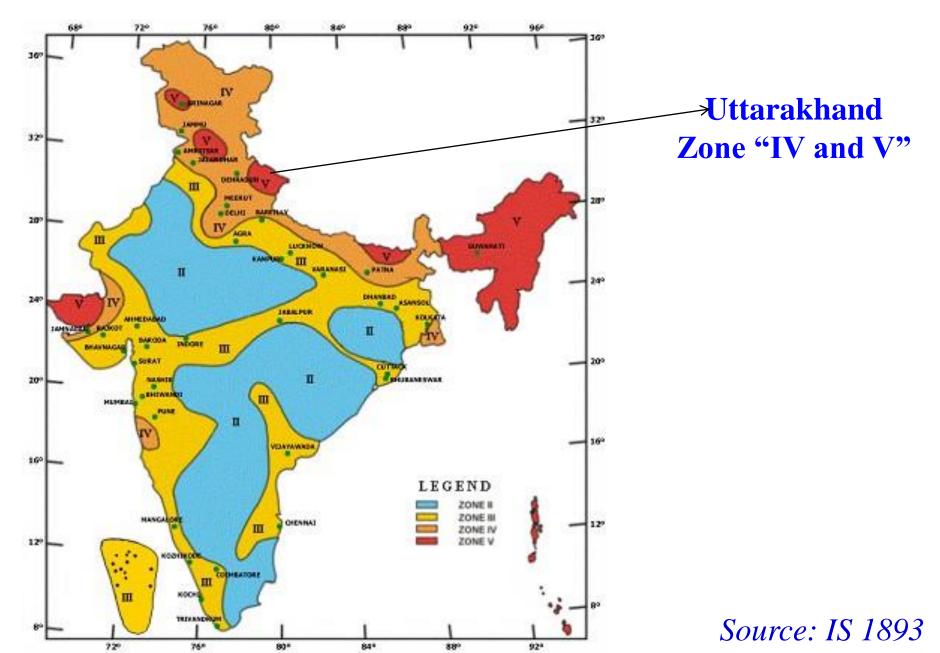


3rd Anniversary of PMAY (U) July 27-28, 2018 at Lucknow, Uttar Pradesh

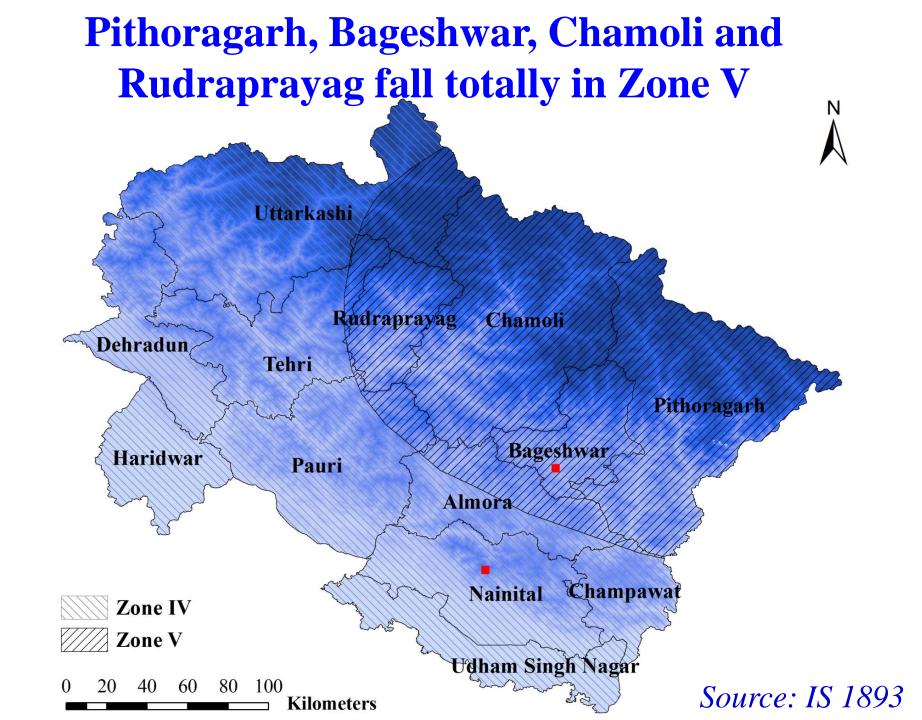
Presentation on: Uttarakhand – Disaster Resistant Technologies

Urban Development Department, Uttarakhand

Seismic Zoning Map of India



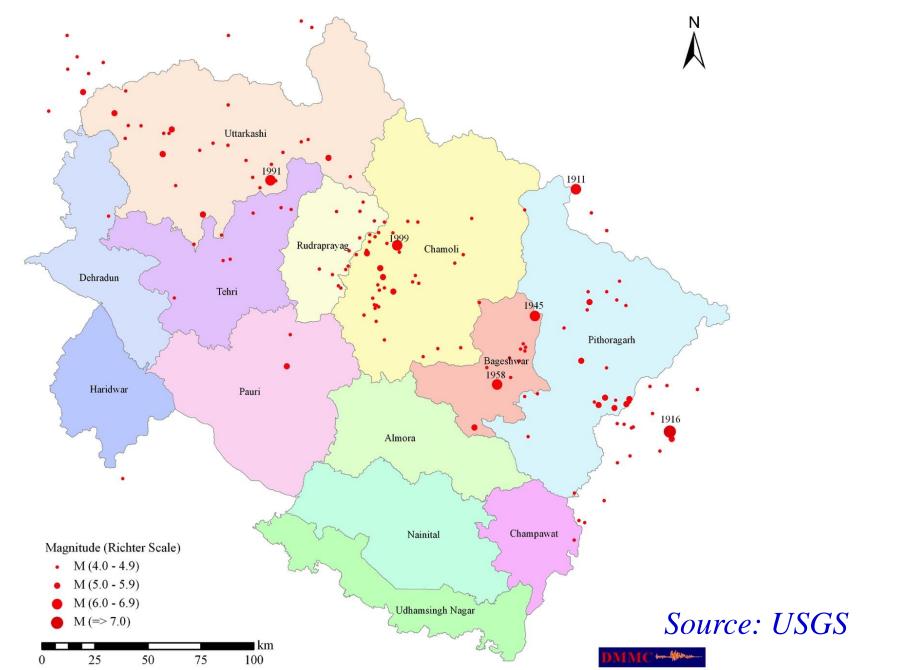
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Uttarakhand: At a Glance

Area	51,152 sq km
Divisions	2 (Garhwal & Kumaun)
Districts	13
Tehsils	103
Development Blocks	95
Population	1,01,16,752
Females	49,62,574
Urban population	30,91,169

Epicenters of previous earthquakes



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Institutional Arrangements and Interventions for: Disaster/ Earthquake Resistance

Institutional Arrangements for Disaster/Earthquake Resistance

- Department of Disaster Management, Uttarakhand
- State Disaster Management Authority
- District Disaster Management Authorities

Capacity Building

- 248 State Government engineers trained under NPCBEERM (National Program on Capacity Building of Engineers in Earthquake Risk Management)
- 526 engineers and 37 architects trained under various other programs
- 1,225 masons trained in earthquake safe construction for BLC (Beneficiary Led Construction) construction under PMAY, RAY.

Interventions: Disaster Resistance Technologies (For BLC: Beneficiary Led Construction)

- During site selection, handholding with beneficiary and ULB engineer to select proper site; away form land slide zone and flash flood zone.
- At Four places Demo Units/ Model DUs constructed (Earthquake Resistant Design) having provisions of RCC Columns, Plinth Beams, Lintel Beams and Slab etc including placement and binding of "Steel Bars".
- Each Demo Unit Costing Approx. Rs. 1.5 Lakh.

Interventions: Disaster Resistance Technologies

- Four Places of Demo DUs: 1- Badkot (Uttarakashi),
 2- Sitarganj (Udham Singh Nagar), 3- Rudraprayag,
 4- Joshimath (Chamoli)
- During the construction and after construction hand holding/ Capacity Building Trainings for "Mesons" as well as to "Beneficiaries", of all Earthquake prone Districts/ Areas.
- Regular visits and guidance to beneficiaries by ULB engineers for Disaster Resistance Provisions.

Interventions: Disaster Resistance Technologies (For BLC: Beneficiary Led Construction)

- During construction of Demo DUs/ Units following technical details/ precautions explained:
 - Proper leveling of foundations trenches and leveled PCC;
 - MS Bars placement and numbers with dia details with stirrups;
 - Casting of RCC footing and columns with minimum voids(using vibrators/ steel bars);
 - Beams at "Plinth Level" and Lintel Level";
 - RCC bends along windows and doors;
 - RCC slab, proper joining of beams, columns and slab etc.

(PCC- Plain cement concrete, MS- Mild Steel, RCC- Reinforced Cement Concrete)





GLIMPSES OF PROGRESS

(BLC/ Beneficiary Led Construction)



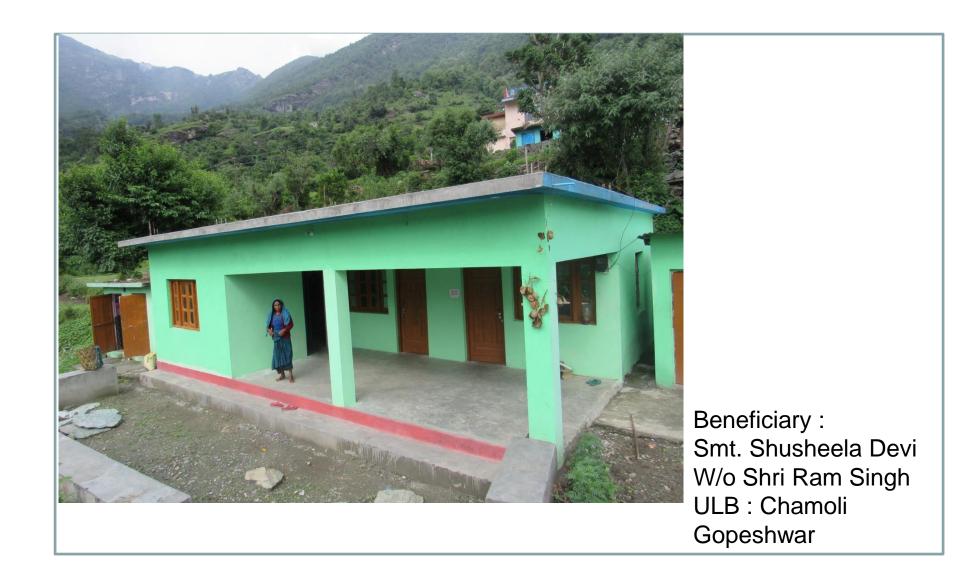


Beneficiary : Smt. Reena Bisht Id : 058002940434900001 W/o Shri Safar Singh ULB : Gauchar (Chamoli)



(BLC/ Beneficiary Led Construction)





GLIMPSES OF PROGRESS

(BLC/ Beneficiary Led Construction)





GLIMPSES OF PROGRESS

(BLC/ Beneficiary Led Construction)



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Beneficiary : Smt. Nasima W/o Shri Hamid ULB : Jhebreda (Haridwar) Beneficiary : Smt. Poonam W/o Shri Ambrish ULB : Jhebreda (Haridwar)



(BLC/ Beneficiary Led Construction)





Capacity Building for Retrofitting

Details of BLC/ Beneficiary Led Construction

- Under PMAY (U), 11860 DUs sanctioned, 119 constructed and 4876 are in progress.
- Under RAY, 3130 DUs sanctioned, 1406 DUs constructed and 536 are at different stages of construction, construction to be started soon for remaining 1188 DUs.
- Under BSUP & IHSDP, 3699 DUs sanctioned, 3099 DUs constructed and 600 are at different stages of construction.

