



Insights from the UNEP- KILA project 2021-2023
on
**Upscaling Community Resilience through embedding Ecosystem-
based Disaster Risk Reduction principles in MGNREGS**



Kerala's system of decentralized governance

Keeping with the spirit of the 73rd and 74th Amendments of the Constitution of India, Kerala has aimed to strengthen local bodies through provision of funds, functions and functionaries to Local Self-Governments.

Kerala Institute of Local Administration

- Autonomous training and research wing of the Local Self Government Department of GoK; State Institute of Rural Development
- Undertake projects and trainings on local self-governance
- Emerging areas of climate change, disaster management, waste management
- Research wings including Urban Chair, Legal Research Centre for Local Governance; Secretariat of the Kerala Urban Commission

Climate Change scenario in Kerala



Kerala State Action Plan on Climate Change 2023-2030



- **Temperature may increase between 1°C to 2°C** in the near term under both moderate (RCP 4.5) and high emission (RCP 8.5) scenarios.
- **Extreme rainfall events are projected to increase;** implications for natural resource sectors such as fisheries, forests, water resources, and socio-economic systems such as agriculture and health and communities.
- The composite vulnerability assessment identifies **Wayanad, Kozhikode, Kasaragod, Palakkad, Alappuzha, Idukki, Kannur, Malappuram, and Kollam** as the most vulnerable districts in terms of overall inherent vulnerability.

Eco-DRR measures



Eco-DRR measures can be identified as **ecosystem-based interventions**, especially structural implemented on the ground which are **crucial for reducing the impact of various hazards** including landslides, flooding, drought, including coastal erosion, tsunami or coastal surge etc., and forest fires.

No regret investments as a long-term alternative for hard infrastructure

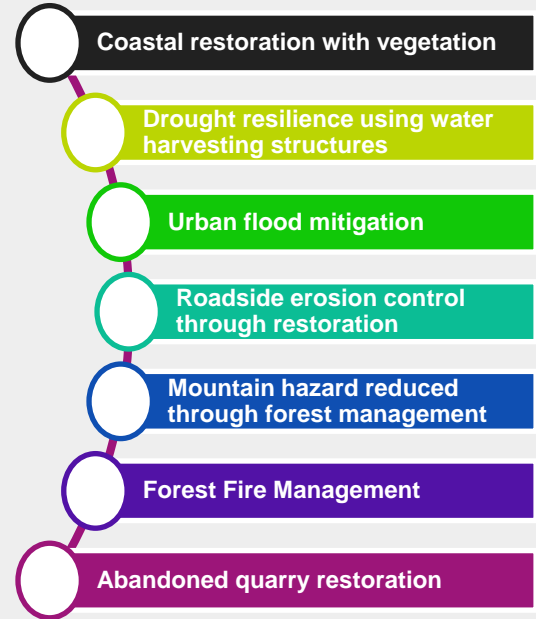
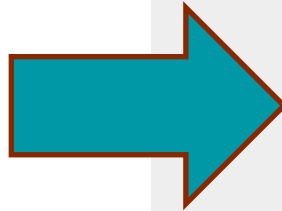
In combination with grey infrastructure

Co-benefits of poverty reduction, climate change adaptation

One application of **Nature Based Solution**

Embedding Eco-DRR in Kerala

- (a) Identification of governance processes and schemes that already involve climate change mitigation and adaptation for leveraging funds (GPDP, LAPCC, DMP)
- (b) Co-benefits approach,
- (c) Identification of appropriate partners,
- (d) Big development/ cash for work programmes like Mahatma Gandhi NREGS, Ayyankali Urban Employment Guarantee Scheme in convergence with other Programs



Mahatma Gandhi NREGS- a prime case for Eco-DRR in rural areas



It is implemented by local self governments and is incorporated into local plans already

It guarantees at least 100 days of employment to every rural household- Rights based and legislation backed

The framework supports principles of integrated watershed management

Robust MIS platform

Analysis done of Eco-DRR related NRM works in rural Kerala under MGNREGS from 2018 to 2022

Work Category	Base year: 2018-19		2019-20		2020-2021		2021-2022	
	Sanctioned amt (in lakhs)	No. of Works	Sanctioned amt (in lakhs)	No. of Works	Sanctioned amt (in lakhs)	No. of Works	Sanctioned amt (in lakhs)	No. of Works
Ground water recharge/drought proofing (includes afforestation works) including afforestation work)	45751.69	35685	20279.93	18581	26177.44	19378	25684.16	17384
Bunding/ Land Development Works	100565	62547	54805.73	39000	92089.35	51346	96274.43	46078
Flood water control	15490.52	15159	15473.6	11473	23433.22	16011	25070.32	14451
Water Harvesting structures	122683.02	82076	112062.71	63975	163759.89	79150	199193.3	9
TOTAL	284490.23	195467	202621.97	133029	305459.9	165885	346222.3	165528

3462 crores approximately, 1,65,528 works

Sample of civil works relating to Natural Resource Management already being carried out in India under Mahatma Gandhi NREGS



Afforestation



Farm pond



Contour Trench



Rain pit



Check dam



Coir geotextiles

- Funds and institutional framework were already there
- Currently being used primarily for giving cash for work
- The correct linkages alone had to be made to leverage towards DRR

KILA- UNEP Eco-DRR initiatives 2019-2023

Project Activities

- Policy related interventions: **Eco-DRR approach embedded in Local level Disaster Management Plans, Grama Panchayat Development Plans, Kerala Mahatma Gandhi NREGS Policy Framework**
- Capacity Building: Trainings for policymakers, technical teams and community level volunteer groups;
- Engagement with private startups to promote their activities and efforts in EcoDRR
- Engagement with national level knowledge partners and government Ministries for further embedding
- Development of Technical manuals in English and in regional languages

Success model for Eco-DRR: Kattakkada Jalagamrudhi project

- 6 Gram Panchayats in the Assembly Constituency of Kattakkada in south Kerala under the leadership of the local MLA
- Participatory water conservation programme following IWRM principles and geospatial planning tools
- Using Mahatma Gandhi NREGS funds in convergence with other funds



Available @
<https://www.youtube.com/watch?v=kpqgH5jdw40>

Annual Development Plans- Kerala scenario

Local Self-Government Level

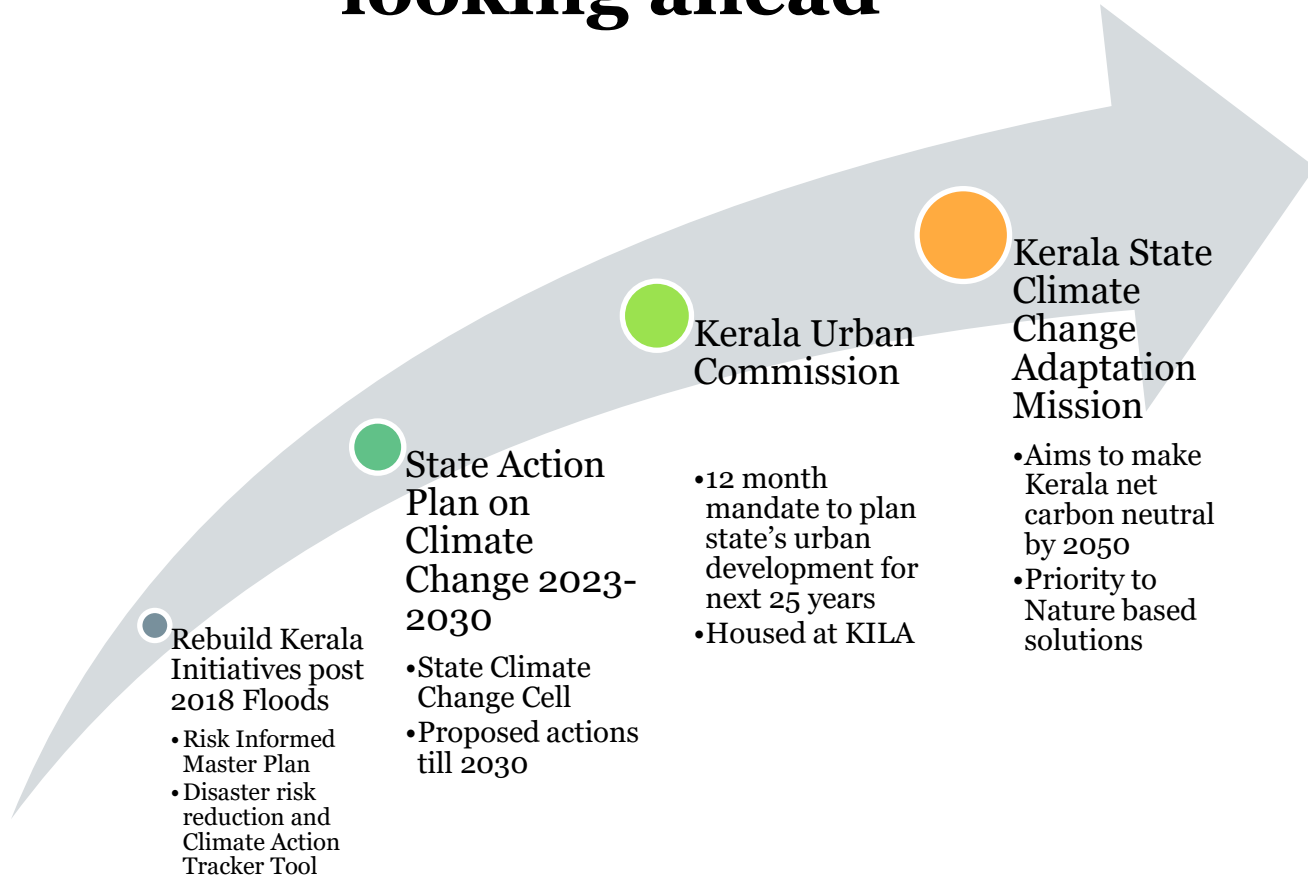


Where to place NbS?

- Local Action Plans on Climate Change
- Local Self-Government Disaster Management Plans
- Legally backed instruments such as Risk Informed Master Plans

Through Mahatma Gandhi
NREGS/Ayyankali Urban Employment
Guarantee Scheme in convergence

Other initiatives in Kerala looking ahead



Challenges for prioritising NbS



- A single framework still lacking at State level; fragmentation in governance due to multiplicity of planning instruments and regulatory bodies
- Structural and systemic issues in traditional governance structures fail to address issues of cross cutting nature
- Individual LSGs have limited powers
- Regulatory processes underutilised-decentralised instruments and enforcement infrastructure needed; NGT is acting as the catalyst



Thank you!

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