



SCORECARD



**Assessing the Impact of CSE's
Capacity Building Programme on
the Progress of Jal Jeevan Mission**

October 2021 to December 2022

CONTENTS

Background	4
Source sustainability of drinking water sources	6
Ensuring water quality	9
Greywater management	14
Conclusion	16

BACKGROUND

Centre for Science and Environment was designated as a key resource centre by the Department of Drinking Water and Sanitation (DDWS) under the Ministry of Jal Shakti in the FY 2021–22. As a key resource centre, CSE is training Level 2 officials working for the Jal Jeevan Mission (JJM)—the latest programme to bring sustainable and clean drinking water to every household. These officials include engineers from the rank of superintending engineer and below. They implement the different water-related structures on the ground. These engineers are trained under the broad topics of source sustainability, greywater management and affordable drinking water quality technologies.

JJM was launched in 2019. Through it, the target of supplying safe and sustainable water was reintroduced for the sixth time since 1969. The country failed to achieve the target every time before this and even villages with full coverage of water supply slipped to uncovered or partially covered status. The main reason was that the source of water—mostly groundwater—was either contaminated or not recharged efficiently. This time, source sustainability and water quality monitoring were brought under special focus in JJM. Also, as the mission targets to provide drinking water at the rate of 55 litres per capita per day, greywater generated due to usage of that water (coming out of the kitchen and washing areas) is also an area of focus.

After completion of 16 training programmes and capacitating more than 1,000 L2 officials on the above mentioned topics, CSE developed an impact analysis of these trainings—in order to capture the changes on the ground and the success of policy interventions. An alumni workshop was organized on 01 March 2023 on the Zoom platform to interact with the trained officials to see whether they are able to make any impact in JJM's target of supplying water to households.

CSE interacted with officials of 25 states/UTs to understand their actions on the field and the effect of policy interventions on source sustainability through groundwater recharge, affordable water quality monitoring and greywater management.

An online form was distributed among the officials to get information on their progress post CSE's training programme.

The status of the states/UTs has been analysed on the following aspects:

1. Source sustainability of drinking water sources

- 1.1. Dependency of states/UTs on groundwater
- 1.2. Status of policies on groundwater recharge
- 1.3. Impact of interventions for improvement in groundwater quality and quantity
- 1.4. Awareness about source sustainability and greywater management
- 1.5. Funds earmarked for implementation of schemes

2. Ensuring water quality

- 2.1. Status of district laboratories for testing of drinking water quality
- 2.2. Water monitoring protocols in states/UTs
- 2.3. Frequency of monitoring
- 2.4. Use of field testing kits for water quality monitoring
- 2.5. Percentage usage of field testing kits

3. Greywater management

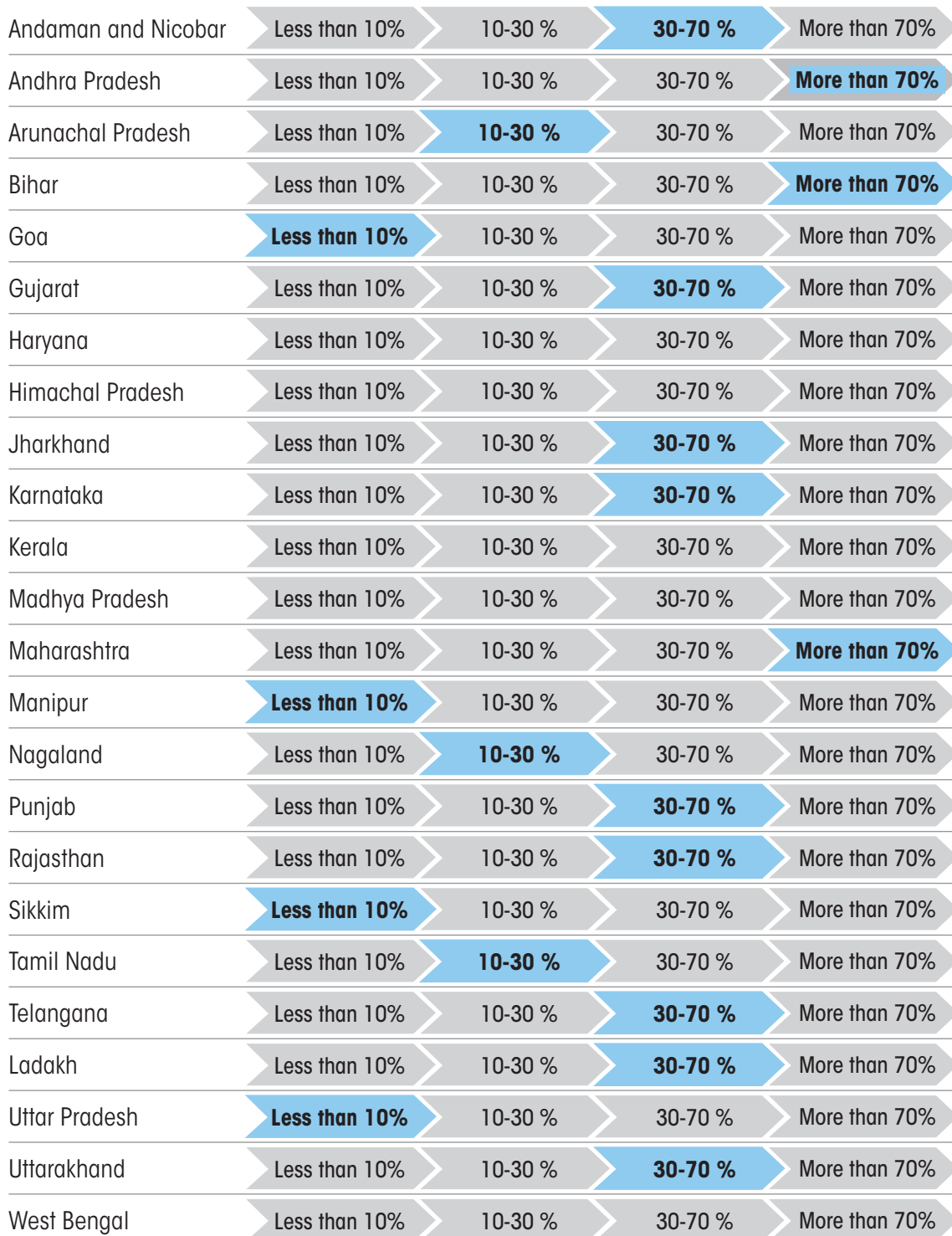
- 3.1. Status of greywater management policy in states/UTs
- 3.2. Funding for greywater management
- 3.3. Tackling greywater
- 3.4. Reuse of greywater
- 3.5. Monitoring protocol for testing treated greywater



SUSTAINABILITY OF DRINKING WATER SOURCES

1. Sustainability of drinking water sources

1.1 Dependency of states/UTs on groundwater



1.2 Status of policies on groundwater recharge

Andaman and Nicobar	In Plan	In Process	Finalized	Implemented
Andhra Pradesh	In Plan	In Process	Finalized	Implemented
Arunachal Pradesh	In Plan	In Process	Finalized	Implemented
Bihar	In Plan	In Process	Finalized	Implemented
Goa	In Plan	In Process	Finalized	Implemented
Gujarat	In Plan	In Process	Finalized	Implemented
Haryana	In Plan	In Process	Finalized	Implemented
Himachal Pradesh	In Plan	In Process	Finalized	Implemented
Jharkhand	In Plan	In Process	Finalized	Implemented
Karnataka	In Plan	In Process	Finalized	Implemented
Kerala	In Plan	In Process	Finalized	Implemented
Madhya Pradesh	In Plan	In Process	Finalized	Implemented
Maharashtra	In Plan	In Process	Finalized	Implemented
Manipur	In Plan	In Process	Finalized	Implemented
Nagaland	In Plan	In Process	Finalized	Implemented
Punjab	In Plan	In Process	Finalized	Implemented
Rajasthan	In Plan	In Process	Finalized	Implemented
Sikkim	In Plan	In Process	Finalized	Implemented
Tamil Nadu	In Plan	In Process	Finalized	Implemented
Telangana	In Plan	In Process	Finalized	Implemented
Ladakh	In Plan	In Process	Finalized	Implemented
Uttar Pradesh	In Plan	In Process	Finalized	Implemented
Uttarakhand	In Plan	In Process	Finalized	Implemented
West Bengal	In Plan	In Process	Finalized	Implemented



1.3 Impact of interventions for improvement in groundwater quality and quantity

Andaman and Nicobar	No Impact	Water Level Rise	Improved Quality	Both
Andhra Pradesh	No Impact	Water Level Rise	Improved Quality	Both
Arunachal Pradesh	No Impact	Water Level Rise	Improved Quality	Both
Bihar	No Impact	Water Level Rise	Improved Quality	Both
Goa	No Impact	Water Level Rise	Improved Quality	Both
Gujarat	No Impact	Water Level Rise	Improved Quality	Both
Haryana	No Impact	Water Level Rise	Improved Quality	Both
Himachal Pradesh	No Impact	Water Level Rise	Improved Quality	Both
Jharkhand	No Impact	Water Level Rise	Improved Quality	Both
Karnataka	No Impact	Water Level Rise	Improved Quality	Both
Kerala	No Impact	Water Level Rise	Improved Quality	Both
Madhya Pradesh	No Impact	Water Level Rise	Improved Quality	Both
Maharashtra	No Impact	Water Level Rise	Improved Quality	Both
Manipur	No Impact	Water Level Rise	Improved Quality	Both
Nagaland	No Impact	Water Level Rise	Improved Quality	Both
Punjab	No Impact	Water Level Rise	Improved Quality	Both
Rajasthan	No Impact	Water Level Rise	Improved Quality	Both
Sikkim	No Impact	Water Level Rise	Improved Quality	Both
Tamil Nadu	No Impact	Water Level Rise	Improved Quality	Both
Telangana	No Impact	Water Level Rise	Improved Quality	Both
Ladakh	No Impact	Water Level Rise	Improved Quality	Both
Uttar Pradesh	No Impact	Water Level Rise	Improved Quality	Both
Uttarakhand	No Impact	Water Level Rise	Improved Quality	Both
West Bengal	No Impact	Water Level Rise	Improved Quality	Both

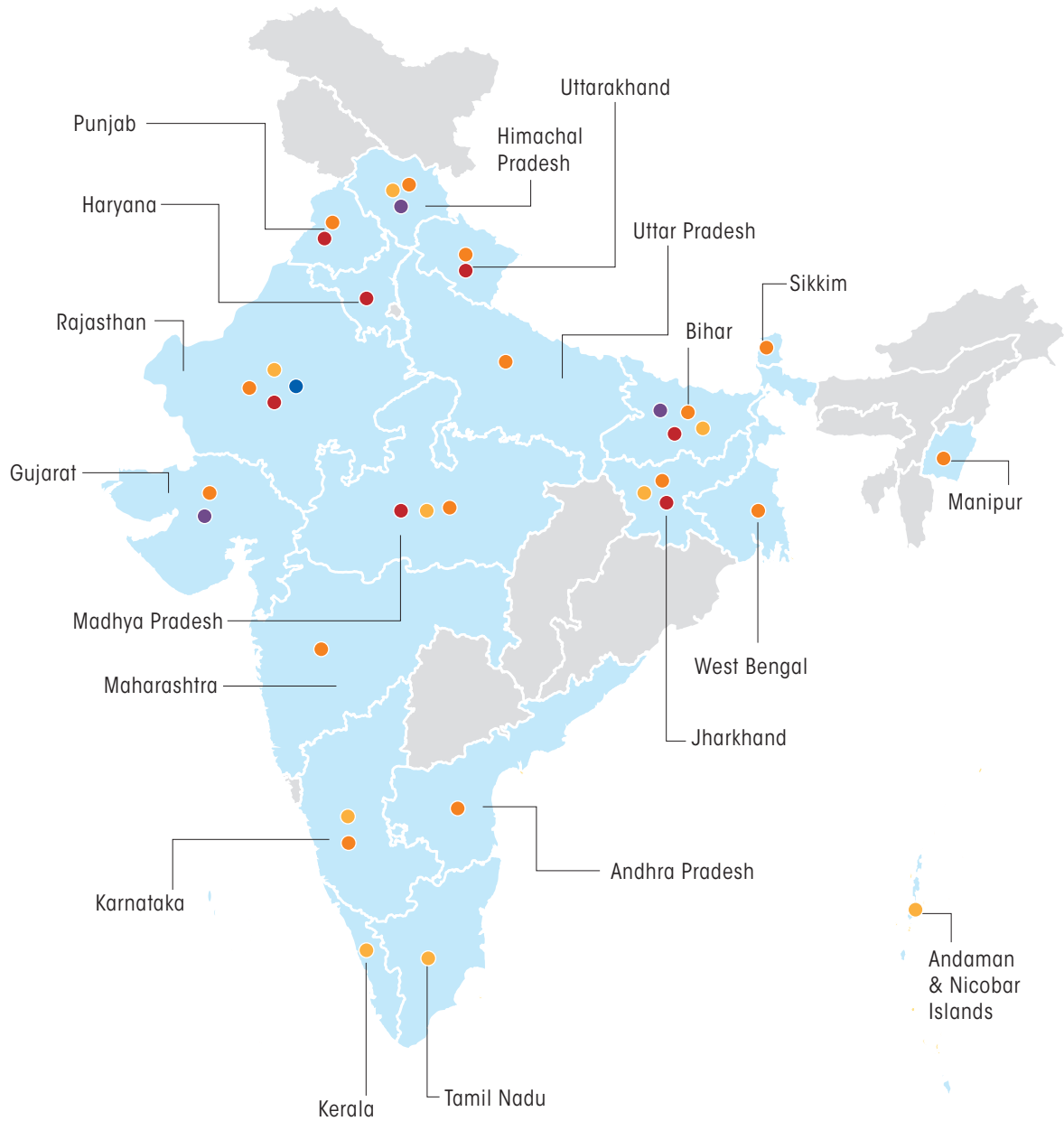
1.4 Awareness about source sustainability and greywater management

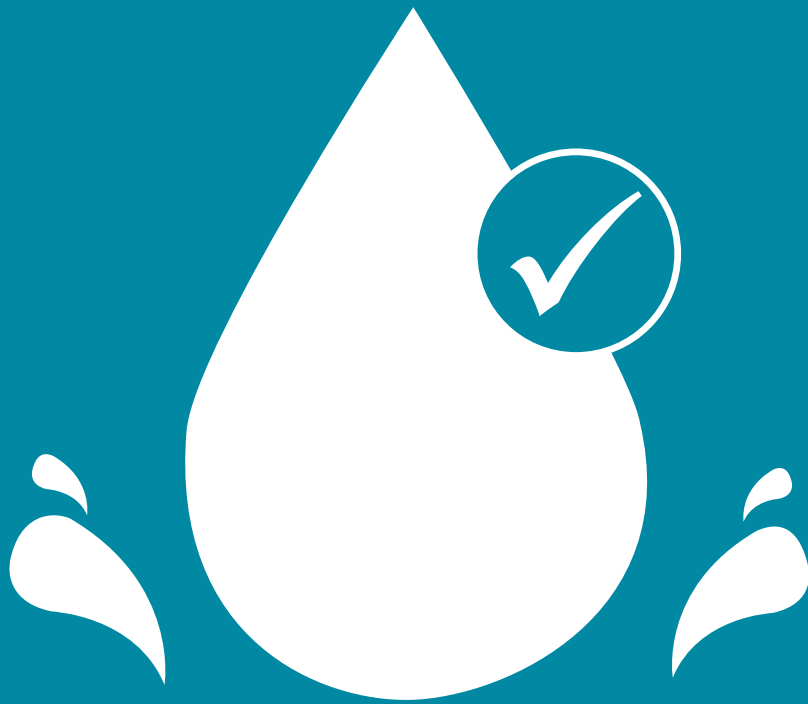
State	Awareness about source sustainability and greywater management	
Andaman and Nicobar	✓	x
Andhra Pradesh	✓	x
Arunachal Pradesh	✓	x
Bihar	✓	x
Goa	✓	x
Gujarat	✓	x
Haryana	✓	x
Himachal Pradesh	✓	x
Jharkhand	✓	x
Karnataka	✓	x
Kerala	✓	x
Madhya Pradesh	✓	x
Maharashtra	✓	x
Manipur	✓	x
Nagaland	✓	x
Punjab	✓	x
Rajasthan	✓	x
Sikkim	✓	x
Tamil Nadu	✓	x
Telangana	✓	x
UT Ladakh	✓	x
Uttar Pradesh	✓	x
Uttarakhand	✓	x
West bengal	✓	x



1.5 Funds earmarked for implementation of schemes

● MGNREGA ● 15th Finance Commission ● JJM PMKSY ● Atal Bhujal Yojana ● Watershed



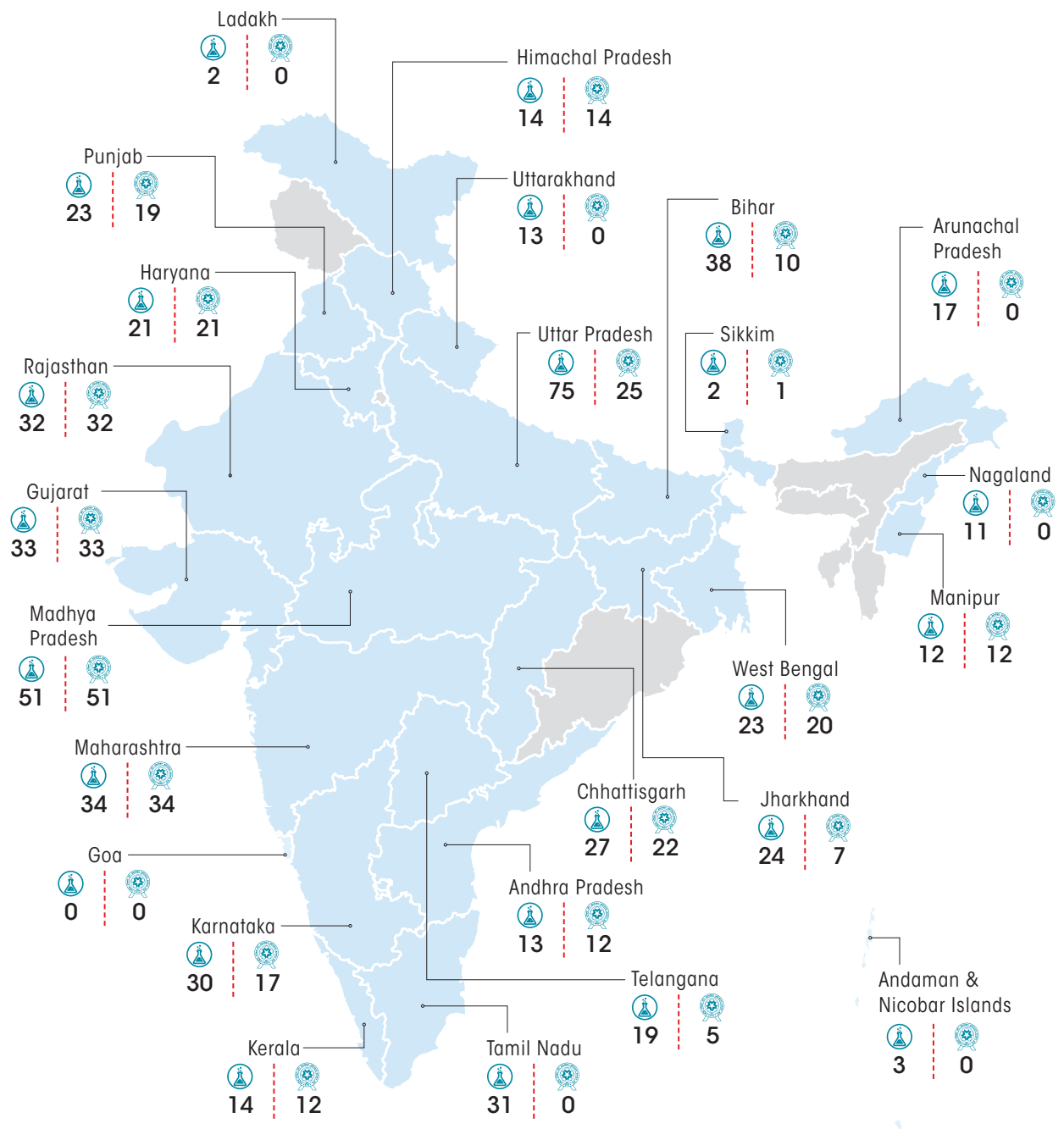


ENSURING WATER QUALITY

2. Ensuring water quality

2.1 Status of district laboratories for testing of drinking water quality

 Number of district labs set up
  Number which are NABL accredited



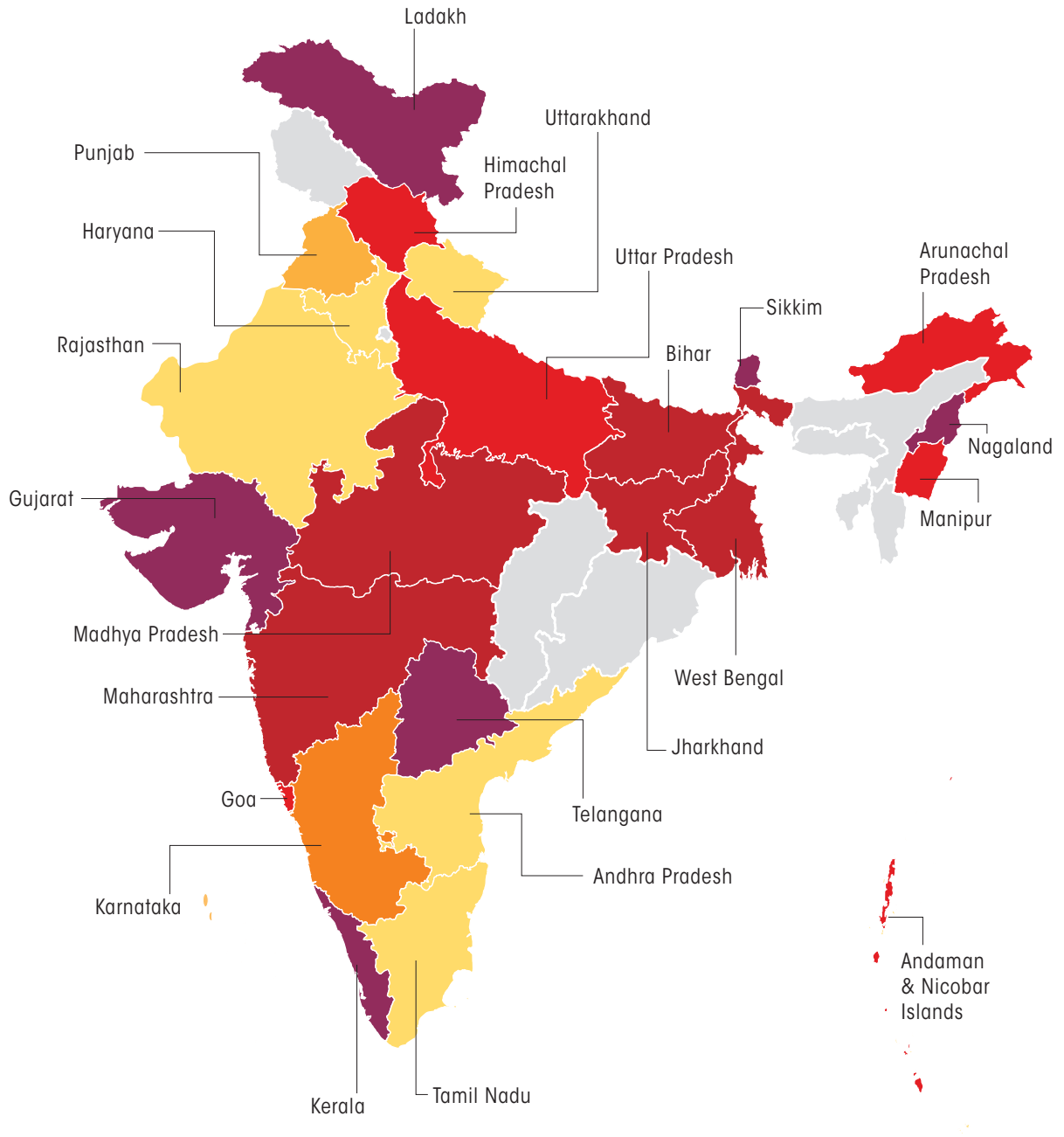
2.2 Water monitoring protocols in states/UTs

State	Is there any monitoring protocol set up by the labs?	
Andaman and Nicobar	✓	✗
Andhra Pradesh	✓	✗
Arunachal Pradesh	✓	✗
Bihar	✓	✗
Goa	✓	✗
Gujarat	✓	✗
Haryana	✓	✗
Himachal Pradesh	✓	✗
Jharkhand	✓	✗
Karnataka	✓	✗
Kerala	✓	✗
Madhya Pradesh	✓	✗
Maharashtra	✓	✗
Manipur	✓	✗
Nagaland	✓	✗
Punjab	✓	✗
Rajasthan	✓	✗
Sikkim	✓	✗
Tamil Nadu	✓	✗
Telangana	✓	✗
Ladakh	✓	✗
Uttar Pradesh	✓	✗
Uttarakhand	✓	✗
West Bengal	✓	✗



2.3 Frequency of monitoring

● Daily ● Weekly ● Fortnightly ● Monthly ● Seasonal ● Yearly ● No Monitoring



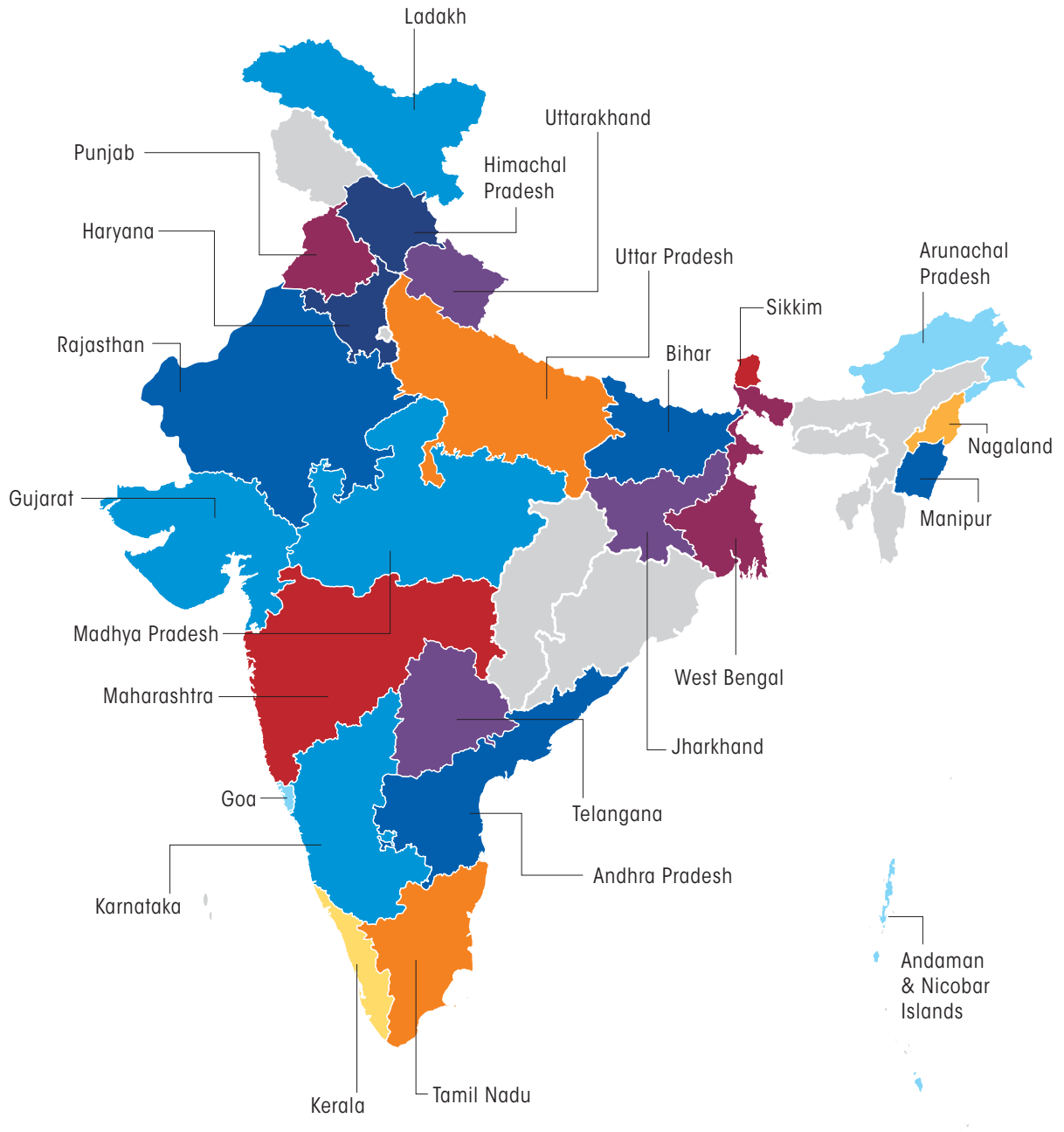
2.4 Use of field testing kits for water quality monitoring

State	Is the use of FTK being promoted in the state/UT?	
Andaman and Nicobar	✓	✗
Andhra Pradesh	✓	✗
Arunachal Pradesh	✓	✗
Bihar	✓	✗
Goa	✓	✗
Gujarat	✓	✗
Haryana	✓	✗
Himachal Pradesh	✓	✗
Jharkhand	✓	✗
Karnataka	✓	✗
Kerala	✓	✗
Madhya Pradesh	✓	✗
Maharashtra	✓	✗
Manipur	✓	✗
Nagaland	✓	✗
Punjab	✓	✗
Rajasthan	✓	✗
Sikkim	✓	✗
Tamil Nadu	✓	✗
Telangana	✓	✗
Ladakh	✓	✗
Uttar Pradesh	✓	✗
Uttarakhand	✓	✗
West Bengal	✓	✗



2.5 Percentage usage of field testing kits

- 0 - 10
- 10 - 20
- 21 - 30
- 41 - 50
- 51 - 60
- 61 - 70
- 71 - 80
- 81 - 90
- 91 - 100
- Planning to use





GREYWATER MANAGEMENT

3. Greywater management

3.1 Status of greywater management policy in states/UTs

Andaman and Nicobar	In Plan	In Process	Finalized	Implemented
Andhra Pradesh	In Plan	In Process	Finalized	Implemented
Arunachal Pradesh	In Plan	In Process	Finalized	Implemented
Bihar	In Plan	In Process	Finalized	Implemented
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Sikkim	In Plan	In Process	Finalized	Implemented
Tamil Nadu	In Plan	In Process	Finalized	Implemented
Telangana	In Plan	In Process	Finalized	Implemented
Ladakh	In Plan	In Process	Finalized	Implemented
Uttar Pradesh	In Plan	In Process	Finalized	Implemented
Uttarakhand	In Plan	In Process	Finalized	Implemented
West Bengal	In Plan	In Process	Finalized	Implemented

3.2 Funding for greywater management

What funds are used for the implementation of greywater treatment?

Andaman and Nicobar	MGNREGA	15th Finance Commission	SBM(G)	JJM
Andhra Pradesh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Arunachal Pradesh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Bihar	MGNREGA	15th Finance Commission	SBM(G)	JJM
Goa	MGNREGA	15th Finance Commission	SBM(G)	JJM
Gujarat	MGNREGA	15th Finance Commission	SBM(G)	JJM
Haryana	MGNREGA	15th Finance Commission	SBM(G)	JJM
Himachal Pradesh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Jharkhand	MGNREGA	15th Finance Commission	SBM(G)	JJM
Karnataka	MGNREGA	15th Finance Commission	SBM(G)	JJM
Kerala	MGNREGA	15th Finance Commission	SBM(G)	JJM
Madhya Pradesh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Maharashtra	MGNREGA	15th Finance Commission	SBM(G)	JJM
Manipur	MGNREGA	15th Finance Commission	SBM(G)	JJM
Nagaland	MGNREGA	15th Finance Commission	SBM(G)	JJM
Punjab	MGNREGA	15th Finance Commission	SBM(G)	JJM
Rajasthan	MGNREGA	15th Finance Commission	SBM(G)	JJM
Sikkim	MGNREGA	15th Finance Commission	SBM(G)	JJM
Tamil Nadu	MGNREGA	15th Finance Commission	SBM(G)	JJM
Telangana	MGNREGA	15th Finance Commission	SBM(G)	JJM
Ladakh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Uttar Pradesh	MGNREGA	15th Finance Commission	SBM(G)	JJM
Uttarakhand	MGNREGA	15th Finance Commission	SBM(G)	JJM
West Bengal	MGNREGA	15th Finance Commission	SBM(G)	JJM



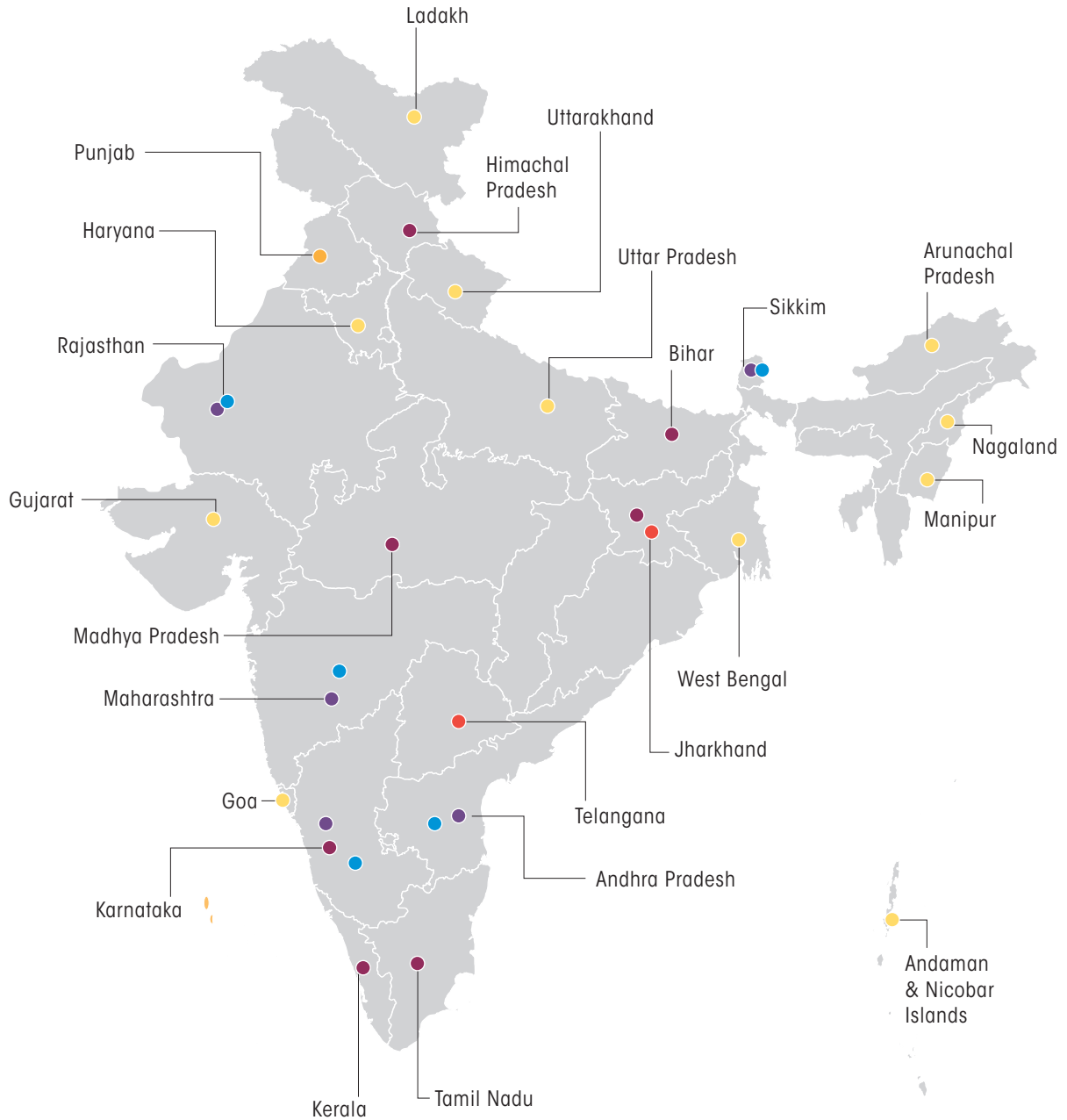
3.3 Tackling greywater

Andaman and Nicobar	Household Level	Community Level	Village Level
Andhra Pradesh	Household Level	Community Level	Village Level
Arunachal Pradesh	Household Level	Community Level	Village Level
Bihar	Household Level	Community Level	Village Level
Goa	Household Level	Community Level	Village Level
Gujarat	Household Level	Community Level	Village Level
Haryana	Household Level	Community Level	Village Level
Himachal Pradesh	Household Level	Community Level	Village Level
Jharkhand	Household Level	Community Level	Village Level
Karnataka	Household Level	Community Level	Village Level
Kerala	Household Level	Community Level	Village Level
Madhya Pradesh	Household Level	Community Level	Village Level
Maharashtra	Household Level	Community Level	Village Level
Manipur	Household Level	Community Level	Village Level
Nagaland	Household Level	Community Level	Village Level
Punjab	Household Level	Community Level	Village Level
Rajasthan	Household Level	Community Level	Village Level
Sikkim	Household Level	Community Level	Village Level
Tamil Nadu	Household Level	Community Level	Village Level
Telangana	Household Level	Community Level	Village Level
Ladakh	Household Level	Community Level	Village Level
Uttar Pradesh	Household Level	Community Level	Village Level
Uttarakhand	Household Level	Community Level	Village Level
West Bengal	Household Level	Community Level	Village Level

3.4 Reuse of greywater

How is the greywater reused?

- Water body rejuvenation ● Pisciculture ● Kitchen garden ● Horticulture
- Other non-potable Uses ● No reuse

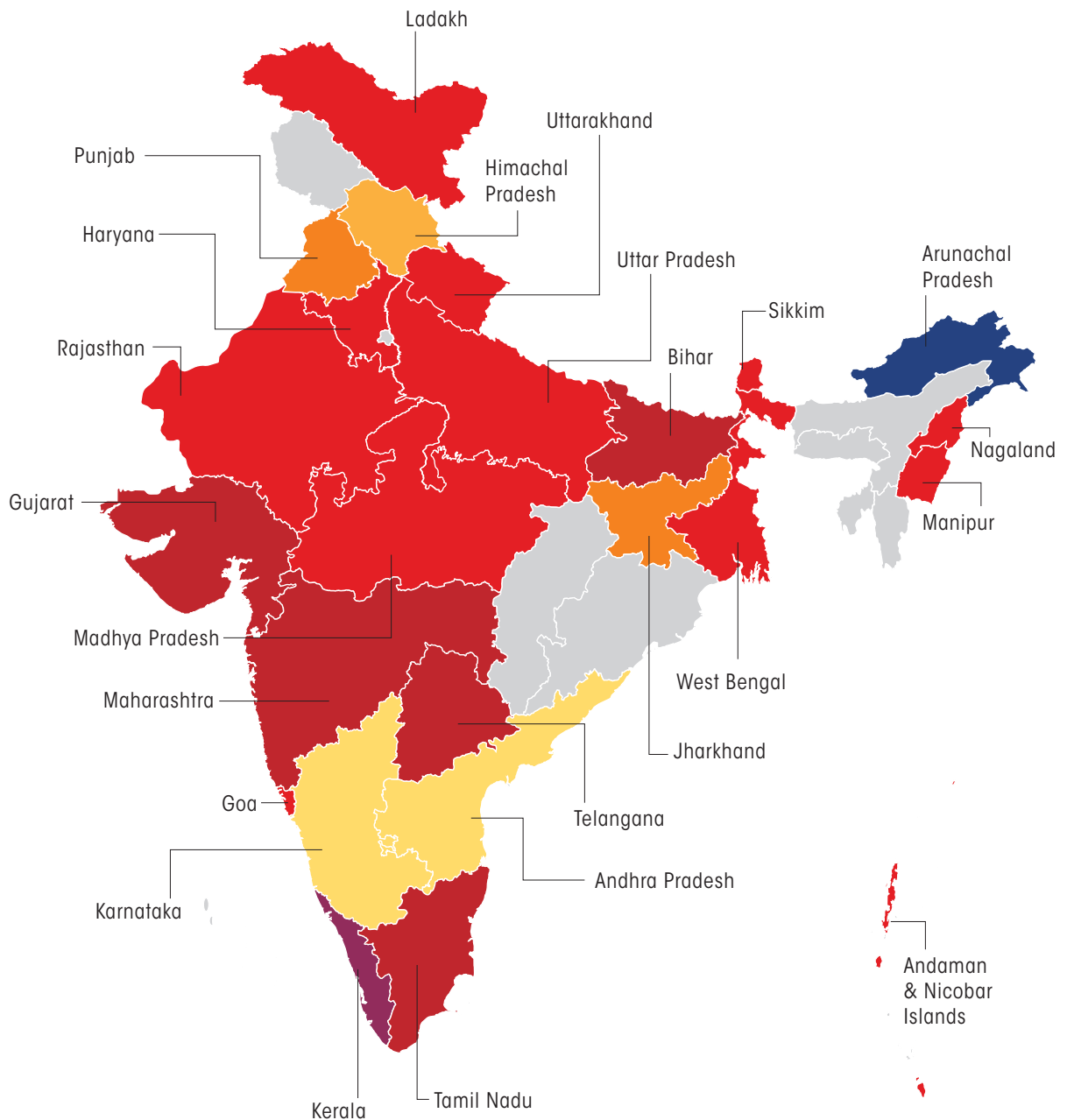




3.5 Monitoring protocol for testing treated greywater

Frequency of testing

● Daily ● Weekly ● Fortnightly ● Monthly ● Quarterly ● Yearly ● No Testing



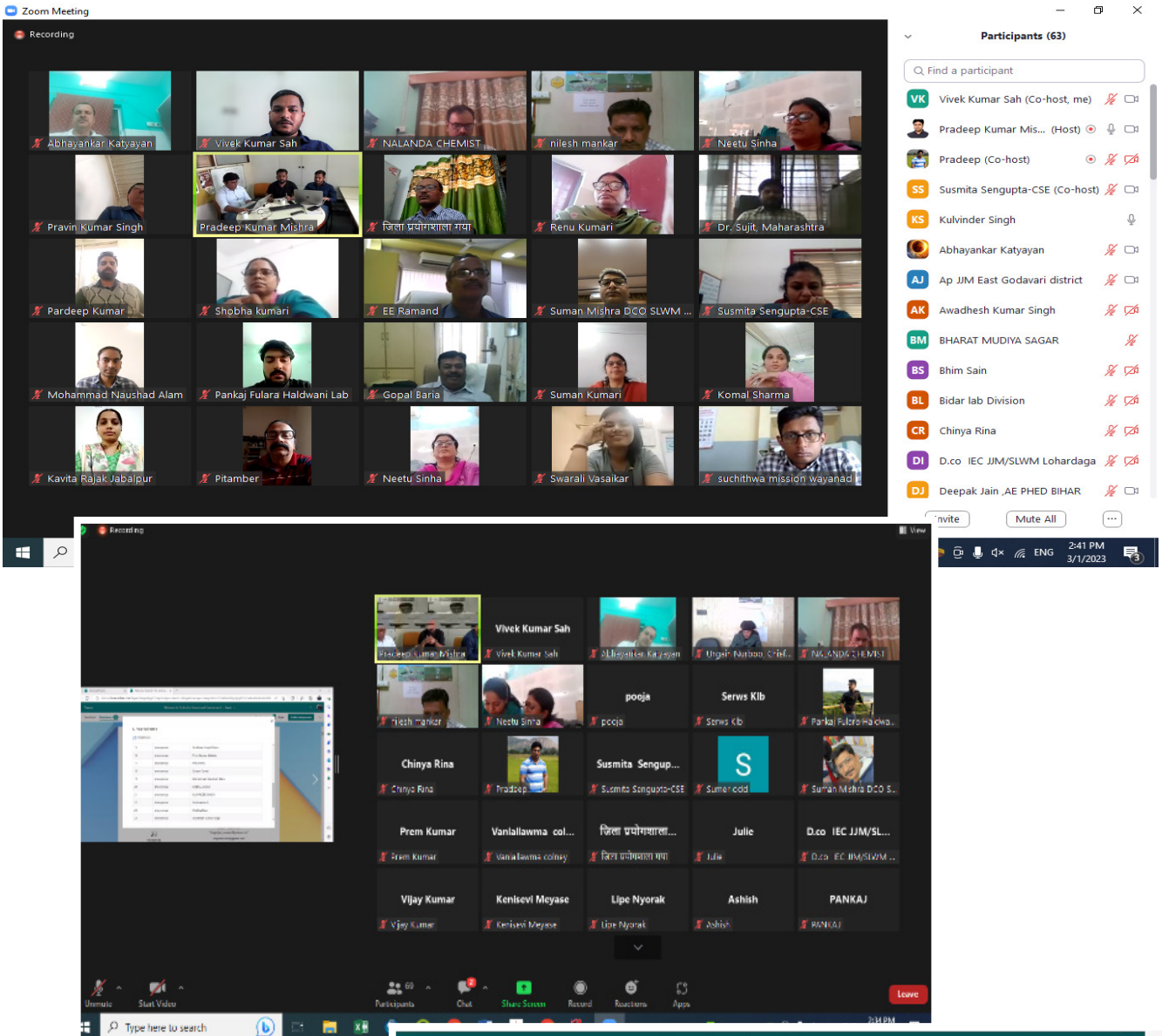
CONCLUSION

The alumni workshop brought together 24 states/UTs, out of which 17 are groundwater-dependent. Of these 24, 14 have some groundwater quality issues. CSE's training programme, which was tailor-made for Jal Jeevan Mission (JJM) officials, has led to changes on the ground. According to the alumni, the training was effective in impacting source sustainability practices, which was also the main focus of the training, in around 75 per cent of the states/UTs. Source sustainability is not only about improving the quantity and quality of groundwater but also about monitoring the change. Another part of this story of sustainability is managing the greywater coming out due to the increased usage of water in households.

Of the 24 states/UTs trained by CSE, 12 either made changes on the ground through implementation or made policy interventions to recharge the groundwater-based sources of drinking water. All 24 have started awareness programmes on managing greywater and more than 50 per cent of the states/UTs have started reusing the treated greywater. To make the source of drinking water safe, 19 out of 24 states/UTs trained by CSE have shown interest in water quality monitoring by setting up district laboratories, getting NABL accreditation and using field testing kits. Five out of 19 states/UTs have even started daily monitoring of water quality.

Some observations: Post CSE's training for Level 2 officials

- 12 states/UTs have undertaken some interventions to improve groundwater recharge through implementation of groundwater recharge structures.
- 4 states/UTs have developed their groundwater policies to improve actions on the ground.
- All the trained states/UTs have now become aware of the importance of source sustainability and management of greywater.
- 13 states/UTs have earmarked funds for source sustainability and greywater management.
- Over 90 per cent of the trained states/UTs have started working on the policy of greywater management in rural areas—the draft policy for Himachal Pradesh is in the final stage.
- All states/UTs have set up district laboratories and after CSE's training programmes, the laboratories have become effective in the periodic monitoring of water quality. 18 states/UTs have also set up monitoring protocols.
- 88 per cent of the trained states/UTs have already introduced field testing kits at the level of local communities.



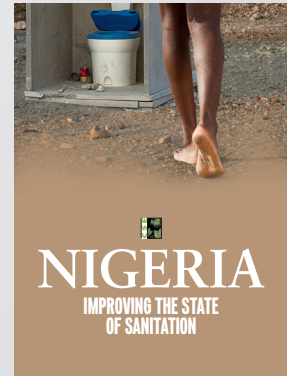
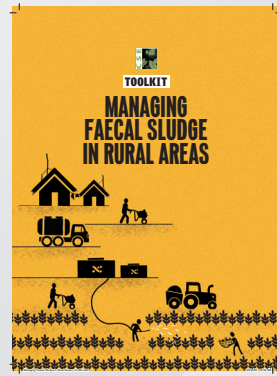
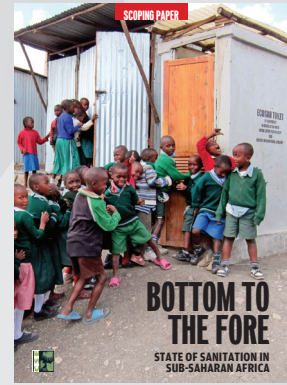
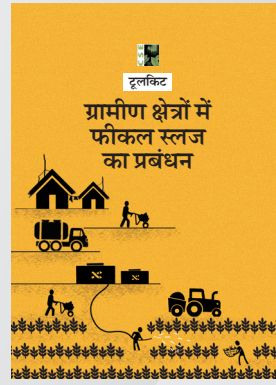
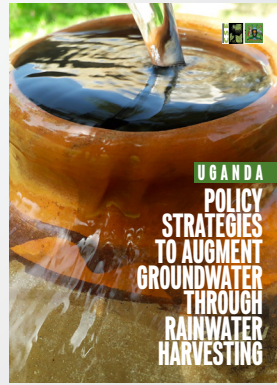
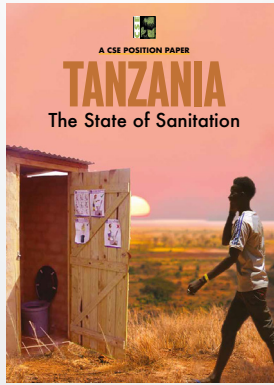
Glimpse of JIM Alumni Workshop

States/UTs which participated in the alumni workshop

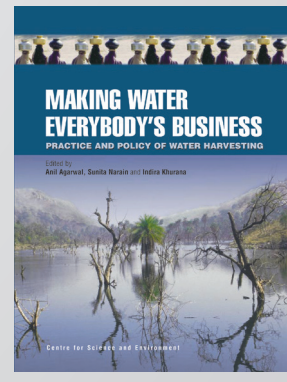
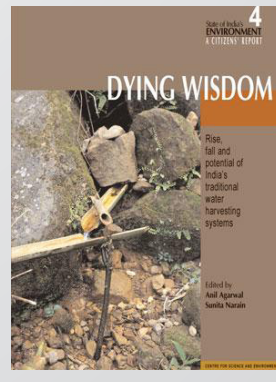




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