

**THE 2018 KERALA FLOODS:
LESSONS LEARNT AND KNOWLEDGE
FOR THE GLOBAL SOUTH**



United Nations
Office for South-South Cooperation

Bangkok, Thailand

March 2020

Contents

Introduction.....	3
About this review	3
Scope of the report	3
EXECUTIVE SUMMARY	4
Kerala Floods 2018	4
Key Learning Points and Knowledge Sharing for Asia and Global South	6
1. Effective early warning system is a must to cope with floods.	7
2. Community radios play an important role during emergencies.	7
3. Take-home rations can successfully combat malnutrition during emergencies.....	9
4. Innovate to develop models for ensuring Accountability to Affected Populations.	9
5. Avoid discrimination of all kinds to provide just and inclusive humanitarian support.	11
6. A long-term engagement with victims is needed to facilitate recovery.	13
7. Disaster recovery is an opportunity for creating Green Jobs.	13
8. Asia can benefit from psychosocial support efforts made in Kerala recovery.....	14
9. Support recovery of MSMEs for local market recovery.	15
10. Protect fragile wetland agriculture systems for conservation of biodiversity and livelihoods.	16
11. Potency of crowd funding-based social media initiatives to support recovery.	16
12. Building skills of local masons is important for resilient infrastructure.	18
13. Re-think sustainability of tourism models in Asia the way Kerala is thinking	18
14. Green recovery is a way forward for Asia.	19
15. It is crucial to address the nexus between environment, gender and disasters in recovery...	20
16. Pension for the poor farmers can reduce burden of recovery.	21
17. Consider existing social protection schemes as a medium to reach out to disaster victims..	21
18. Updating disaster management plans should be an annual and ongoing exercise.	23
19. Recovery effort should lead to more prepared communities.	23
20. Use disasters as an opportunity for skill upgradation and livelihoods diversification.	24
21. Use recovery as an opportunity for better integration of CCA and DRR for resilience.	25
Annexure 1. Literature Review	27

Introduction

The UN Office for South-South Cooperation (UNOSSC) Regional Office for Asia and Pacific aims to respond to sub-regional priorities, focusing on working with regional intergovernmental organisations and regional institutions. The Asia Pacific as a region is the most disaster-prone part of the world. Increasingly, incidents of extreme weather require sharing of lessons learnt among stakeholders including governments, NGOs and the communities themselves, to best equip them to prepare, respond, recover, and to transform themselves to resilient societies. To this end, UNOSSC and the All-India Disaster Mitigation Institute have been implementing the South-South Citizenry-Based Academies since 2016.

The frequent recurrence of extreme weather incidents, particularly in South Asia, makes knowledge exchanges on mitigation, response and recovery even more pertinent. The State of Kerala in India experienced severe flooding in 2018. With a view to learn from Kerala's knowledge experience, UNOSSC and a team of consultants fielded a mission to Kerala to assess lessons learnt and prepare a knowledge product in the form of a report for sharing with the countries of the South.

About this review

This rapid review of recovery initiatives in Kerala is different from any other review or evaluation as it attempts to draw lessons for Asia from the viewpoints of South-South Cooperation. The review represents a wide range of lessons learnt from government, private sector, national and international development cooperation partners, and other non-state actors.

The criteria for inclusion of initiatives in the review were:

- a) It should be successful and replicable;
It should be relevant primarily to Asia and Pacific;
- b) It should offer dimensions relevant for a wide audience; and
- c) It should have a potential to be scaled-up.

The review method included review of available documents (please refer to annex 1) and findings during missions to Kerala during December 2019. The information gathering from the field included key informant interviews (please refer to annex 2), field visits to effected communities and meeting with key public-private agencies in Kerala.

Scope of the report

This report presents key lessons learnt and knowledge sharing for Asia and the Global South derived from recovery efforts in 2018 flood - hit Kerala. The report is based on review of literature, field mission and key informant interviews. It is intended for agencies and professionals working in Asia and the Global South on Disaster Management to access policy, coordination and recovery experiences from Kerala. It is intended to strengthen South-South links, exchanges and cooperation to realise the goals of the Sendai Framework for Disaster Risk Reduction.

EXECUTIVE SUMMARY

Kerala Floods 2018

Flooding is the most common natural hazard that affects the multi-hazard prone state of Kerala in India. The state is highly exposed to multiple disaster risks and changing climatic dynamics due to its geophysical location and long coastline. The Kerala State Disaster Management Authority (KSDMA) identifies 39 hazards categorized as naturally triggered hazards (natural hazards) and anthropogenically triggered hazards (anthropogenic hazards). Kerala is also one of the most densely populated Indian states (860 persons per square kilometer) making it more vulnerable to damage and loss on account of disasters.¹ As described in the box 1, risks are increasing due to continuing environmental degradation in the state.

Box 1. Continuing environmental degradation²

One of the strongest defences against natural disasters is a healthy ecosystem. Thus, risks are heightened by environmental degradation. This was demonstrated, in 2018, by the floods in the state of Kerala in India. Kerala is long and narrow with its highlands leading to steep slopes, midlands and coastal tracts. Almost the entire state is a drainage system for run-off from the Western Ghats, where a dense network of rivers links the hills to the Arabian Sea. But the stability of the hilly regions has been affected by construction projects, deforestation and excessive quarrying. This environmental degradation combined with a lack of disaster preparedness resulted in a deadly extreme weather event.

The scale of floods of August 2018 was unprecedented in the history of Kerala. Between June 1, 2018 and August 18, 2018, Kerala received cumulative rainfall that was 42% in excess of the normal average. The floods not only affected lives and livelihoods of thousands but also the state economy; all major sectors such as transport, infrastructure, tourism and housing were hit hard.³ According to the situation report⁴ dated October 10, 2018, the total death toll in Kerala floods stood at 506 with over 5 million (5,411,712) people affected by floods. A Kerala Post-Disaster Needs Assessment (PDNA) report⁵ released in October 2018 recorded the following major impacts of floods and landslides.

- The torrential rains triggered several landslides and forced the release of excess water from 37 dams across the state, aggravating the flood impact. Nearly 341 landslides were reported from 10 districts of Kerala.
- The devastating floods and landslides affected 5.4 million people and close to 1.4 million people had to be evacuated to relief camps during the floods as their homes and household assets were inundated with flood water.
- Access to piped water was disrupted for 20% of the state's population (0.67 million people). An estimated 0.31 million shallow wells were damaged and contaminated in six worst affected districts of Kerala directly affecting 1.4 million people. Over 95,000 household latrines were substantially damaged affecting nearly 0.4 million people.
- Over 0.17 million buildings were damaged either fully or partially, potentially affecting 0.75 million people. More than 1,700 schools in the state were used as relief camps during the floods. Most of the camps closed after 10 days and citizens returned home.

¹ KSDMA. 2016. Kerala State Disaster Management Plan – 'towards a safer state' (2016), <https://sdma.kerala.gov.in/wp-content/uploads/2018/11/Kerala%20State%20Disaster%20Management%20Plan%202016.pdf>.

² United Nations. 2019. The Disaster Riskscape Across Asia-Pacific: Pathways for Resilience, Inclusion and Empowerment. Asia-Pacific Disaster Report 2019. https://www.unescap.org/sites/default/files/publications/Asia-Pacific%20Disaster%20Report%202019_full%20version.pdf

³ The World Bank. 2018. World Bank Commits Support to Rebuild a More Resilient Kerala. <https://www.worldbank.org/en/news/press-release/2018/10/16/world-bank-commits-support-to-rebuild-a-more-resilient-kerala>

⁴ MoHAs. 2018. Situation report on Heavy Rain fall in Himachal Pradesh, Kerala, Karnataka, Assam, Odisha, Nagaland and Punjab. http://www.ndmindia.nic.in/images/gallery/Situationreport_10102018.pdf

⁵ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018), https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

- Floods affected teaching and learning in almost all the districts with institutions being closed from 2 to 23 days. A total of 1,613 schools were affected by the floods. Some schools in Alappuzha District were closed for more than a month.
- Among the worst affected were workers in the informal sector who constitute more than 90% of Kerala's workforce. It is estimated that nearly 7.4 million workers, 2.2 million migrants, 34,800 persons working in micro, small and medium enterprises, and 35,000 plantation workers (majority being women), were displaced from employment.
- There was no epidemic disease outbreak following the floods. However, 332 health facilities were fully or partially destroyed. Furthermore, 61 *Ayurveda*⁶ institutions and 59 homeopathic institutions were damaged as a result of the floods.
- According to a conservative estimate, close to 2.6% of the State's Gross Domestic Product (GDP) was washed away by the floods instantly. The estimated loss in the primary sector alone was India Rupee (INR) 268.5 Billion (approximately 3.7 billion US\$). The state government required INR 310 Billion (approximately 4.3 billion US\$) for recovery and reconstruction.

⁶ *Ayurveda* is an ancient system of medicine or health care that has been widely practiced on the Indian subcontinent.

Key Learning Points and Knowledge Sharing for Asia and Global South

This review identified the following **key Learning Points** as the most important, relevant to flooding and broadly applicable to flood recovery processes in Asia. These key points are categorized under the following key thematic areas of disaster management:

- Emergency Relief and Response
- Rehabilitation and Recovery
- Building Back Better
- Disaster Risk Reduction

The Government of India is keenly implementing initiatives in these key areas through its National Disaster Management Plan of 2016 (revised in 2019) with the help of the National Disaster Management Authority (NDMA) and the National Institute of Disaster Management (NIDM).

Emergency Relief and Response	Rehabilitation and Recovery	Building Back Better	Disaster Risk Reduction
<ul style="list-style-type: none"> • An effective flood early warning system is a must to cope with floods. • Community radios play an important role during emergencies. • Take-home rations can successfully combat malnutrition during emergencies. • Innovate to develop models for ensuring Accountability to Affected Populations. • Avoid discrimination of all kinds to provide just and inclusive humanitarian support. 	<ul style="list-style-type: none"> • A long-term engagement with victims is needed to facilitate recovery. • Disaster recovery is an opportunity for creating Green Jobs. • Affected people can benefit from psychosocial support efforts made in Kerala recovery. • Supporting recovery of MSMEs is a necessity for local market recovery. • Protect fragile wetland agriculture systems for conservation of biodiversity and livelihoods. • Develop crowd funding-based social media initiatives to support recovery. 	<ul style="list-style-type: none"> • Building skills of local masons is important for resilient infrastructure. • Re-think sustainability of tourism models in Asia the way Kerala is thinking. • Green recovery is a way forward for Asia. • It is crucial to address the nexus between environment, gender and disasters in recovery. • Pension for the poor farmers can reduce burden of recovery. • Consider existing social protection schemes as a medium to reach out to disaster victims. 	<ul style="list-style-type: none"> • Updating disaster management plans should be an annual and ongoing exercise. • Recovery efforts should lead to more prepared communities. • Use recovery as an opportunity for better integration of CCA and DRR for resilience. • Use disasters as an opportunity for skills upgrading and livelihoods diversification. • Have relevant assets to help respond based on present hazards in the area, “There were simply not enough boats to move people at the time”

REVIEW OF KERALA RESPONSE AND LESSONS LEARNT

Emergency Relief and Response

1. Effective early warning system is a must to cope with floods.

Kerala is an Indian coastal state. Effective early warning is not only important for floods but also for cyclones and other natural hazards. According to the Ministry of Earth Sciences (MoES), a 'red alert' was issued by the India Meteorological Department (IMD) for several districts of Kerala two days ahead of the August downpours but was not followed up adequately; the State did not have a flood warning system in place.⁷ However, an expert at the South Asia Network on Dams, Rivers and People explained that: "The federal government is also to blame because Kerala gets no early flood warning from the Central Water Commission (CWC), the only government agency authorised to do so".⁸

Many people met during the field mission for this research indicated that the early warning about floods had been inadequate. "The Early Warning systems were non-existent and as people shared that they would go off after the ceremonial installation and newspaper publicity and photographs. People have great dependence on early warning systems for effective and timely evacuation. However, early warning systems during the 2018 Kerala floods performed sub-optimally. Despite the Comptroller and Auditor General of India (CAG)'s reported warnings, the EWS were not ready and the private company delegated to maintain the systems was not ready either", a report entitled "2018 Kerala Floods: Governance and Legal Compliance"⁹ concluded.

The field mission also revealed that although there were government warnings to evacuate, many people decided to remain home until it was too late to leave safely. They ultimately had to wade in the water carrying their children. There is an important lesson here to be learnt about making people obey such warning messages. Odisha successfully did so in the case of cyclone Fani (which hit Odisha on May 3, 2019) by issuing clear warning messages and using the power of the state administration aiming at "zero-casualty". There is a lot that the region can learn by comparing two cases of two coastal states (Kerala and Odisha) in India. In line with the strengthening of its counterpart in Odisha, the Kerala State Disaster Management Authority should be strengthened for development of disaster-resilient infrastructure and technology in anticipation of future hazards and each government department in Kerala should develop its disaster management plan.¹⁰

The state requires a low-cost rainfall forecast and food early warning system with sufficient lead-time to take actions.¹¹ "Early warning systems should work effectively as variations in climatic patterns due to global warming have increased natural calamities such as floods and cyclones."¹²

2. Community radios play an important role during emergencies.

The Kerala floods saw the emergence of a couple of equally formidable heroes: fishermen, who managed to rescue more than 65,000 people from various districts and the community radio.

⁷ Koshy J. The Hindu. 2018. Kerala lacks a flood warning system: Ministry of Earth Sciences.

<https://www.thehindu.com/news/national/kerala-lacks-a-flood-warning-system-ministry-of-earth-sciences/article24786802.ece>

⁸ BBC News. 2018. Why the Kerala floods proved so deadly. <https://www.bbc.com/news/world-asia-india-45243868>

⁹ News18.com. 2018. Kerala Govt was 'Very ill-Prepared' to Handle Kerala Floods, Ignored Safety Regulations: JNU Researchers.

<https://www.news18.com/news/india/kerala-govt-was-very-ill-prepared-to-handle-kerala-floods-ignored-safety-regulations-jnu-researchers-1921401.html>

¹⁰ Patra D. 2018. Lessons from Odisha Super Cyclone for Kerala Floods. <https://www.actionaidindia.org/lessons-from-odisha-super-cyclone-for-kerala-floods/>

¹¹ Zevenbergen C. 2018. Kerala Floods: Recovering Through Resilience in a Disaster. <https://www.un-ihe.org/stories/kerala-floods-recovering-through-resilience-disaster>

¹² Prasanna L. 2019. Kerala floods: Effective early warning system needed, says Kerala CM.

<https://timesofindia.indiatimes.com/city/kochi/effective-early-warning-system-needed-says-cm/articleshow/69314533.cms>

Community radio stations emerged as one of the most powerful communication tools during the floods.¹³

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) jointly with the Kerala State Disaster Management Authority (KSDMA) planned to conduct capacity building classes for community radios operators in the state in July 2019. The project was a recognition of the important role that community radios played during the 2018 floods. The rationale behind the initiative is that with proper training and guidance these stations can perform even better. KSDMA also demanded an emergency frequency for Kerala to air information strictly related to emergencies and natural disasters.¹⁴ The role of community radio stations in Kerala during the 2018 August floods was widely appreciated. The lesson for Asian countries is to establish such dedicated frequencies that can be tuned in during emergencies and build capacity of community radio stations. An example of how Radios can assist in emergencies is shared in Box 2.

Box 2. Six Community Radio stations from flood-hit regions will co-create programmes¹⁵

The sense of unity that was on view during the unprecedented floods in the State in 2018 has now led to a unique experiment – six community radio stations from flood-hit regions across the State are coming together to ‘co-create’ programmes on rebuilding the State. The Janakiya Pankalitham Punarnirmanam initiative of the Local Self-Governance Department is being implemented in partnership with the Kerala State Disaster Management Authority, the United Nations Development programme (UNDP), UNICEF and British Broadcasting Cooperation (BBC) Media Action.

The following Community radio stations, Radio Media Village, Radio Mattoli, Radio Neythal, Janvani Community Radio, Radio Hello and Mangalam Radio, with dedicated listeners in various flood-hit districts, are part of the initiative, with the first of the ‘Puthu Nambukal - Nava Keralathinte Shankoli’ episodes going live on Tuesdays in all these stations and on the Internet. “There have been instances of one radio station producing a programme and others broadcasting it. But this is the first time that one programme is being co-created by several stations. We have planned 24 episodes on issues such as housing, livelihood and health. Each episode is half-an-hour-long, with each station contributing to it. For instance, the Mattoli or Neythal stations will be contributing a short drama on the topic of the day, Media Village will be doing expert interviews, Mangalam will be doing a short synopsis and key takeaways capsule and Radio Hello and Janvani public service announcement jingles and promos,” says Vipin Raj. Mr Vipin Raj is programme coordinator at Radio Media Village. All the coordination happens on a common WhatsApp group, where each radio station shares the segment that it has produced with the rest of the stations all stitching it together for their respective broadcasts.

The programmes

Two episodes each will be broadcast every week. With all of these stations situated in flood-affected regions, the coordinators have been part of the rescue and rebuilding efforts, and also have a local connection. The programme centres ensure a dialogue between humanitarian responders with people and communities affected by or prone to a crisis. In Wayanad, the Mattoli station is even translating the entire programme to Paniya language for its listeners from the tribal villages. “Soon after the floods, we approached the State government with this plan for a people-led recovery process, and the government responded immediately. The radio programmes are part of our initiatives at taking people’s feedback to inform the recovery process, integrating it into disaster response, recovery and reconstruction. Once we are able to demonstrate the impact of this on the developmental plans and people's lives, this will go a long

¹³ CR News. 2018. RADIOS OF HOPE – HOW CR STATIONS BECAME LIFELINES FOR COMMUNITIES IN FLOOD RAVAGED KERALA

<http://uccommedia.in/news/radios-of-hope-how-cr-stations-became-lifelines-for-communities-in-flood-ravaged-kerala/>

¹⁴ Deccan Chronicle. 2019. KSDMA focus on community radio. <https://www.deccanchronicle.com/nation/current-affairs/300719/ksdma-focus-on-community-radio.html>

¹⁵ Praveen. S. R. The Hindu. 2019. Riding the Sound Waves to Rebuild Kerala. <https://www.thehindu.com/news/national/kerala/riding-the-sound-waves-to-rebuild-kerala/article26187509.ece>

way in bridging the current gap between disaster response planning and developmental planning,” says Anu Puri, who worked with UNICEF on the programme.

3. Take-home rations can successfully combat malnutrition during emergencies.

Disasters put more women, children and weaker sections of the society at risk of malnourishment. The 2018 floods in Kerala severely affected maternal and child health. “Despite gender-targeted evacuations and hospitalizations, the additional medical needs of many women and children were not met because of loss of patient records and damage to maternal health facilities and their equipment, medical, hygiene and nutritional supplies. This highlights the need to prepare for specific health vulnerabilities within hazard-prone areas, to prevent disasters from exacerbating health inequalities.”¹⁶ The Sphere Handbook (2018 edition) suggests providing take-home dry or suitable ready-to-use supplementary food rations unless there is a clear rationale for on-site feeding.¹⁷

Take Home Rations (THRs) in the form of pre-mixes/ready-to-eat food, including micronutrient fortified food and/or energy dense food for severely underweight children can be effective in combating malnutrition in the after-math of an emergency. The pilot project for fortification of take-home rations under the Integrated Child Development Scheme (ICDS)¹⁸ in Wayanad District of Kerala supported by the World Food programme (WFP) was completed and successfully handed over to the Department of Women and Child Development, Government of Kerala, for scale-up across the State by WFP. Cascading training sessions for scale-up were conducted, covering 720 members of a women’s empowerment programme (Kudumbashree)¹⁹ in Kerala, with technical support from WFP.²⁰ For more details please refer to the Box 3 below.

Box 3. The Government of Kerala announced the state-wide scale up of the production of fortified ‘Nutrimix’ and its distribution to children aged six to 36 months as part of a Take-Home Ration, based on WFP’s pilot project in Wayanad District. The announcement took place at the inauguration of ‘Poshan Abhiyan’ (Nutrition Mission), which was attended by the Chief Minister, Shri Pinarayi Vijayan, the Minister of Women and Child Development of the Government of India, Smriti Irani, and WFP India’s Deputy Country Director.²¹

4. Innovate to develop models for ensuring Accountability to Affected Populations.

Accountability to Affected Populations (AAP) is not new concept; but a part of a larger strategy for meaningful engagement of affected populations in decisions that directly impact their lives. AAP through qualitative, bottom-up and people centred actions is fundamental to sustainable and people owned early recovery.²² The AAP Framework articulates how to use power responsibly by taking account of, and being held accountable to those who are affected by the use of such power”.²³ It also means, “taking account of the views of affected people in the design and implementation of aid activities and collecting and acting upon feedback from them, transparently and effectively sharing information with communities, and being held to account for the quality, fairness and effectiveness of your actions”.²⁴

¹⁶ United Nations. 2019. The Disaster Riskscape Across Asia-Pacific: Pathways for Resilience, Inclusion and Empowerment. Asia-Pacific Disaster Report 2019. https://www.unescap.org/sites/default/files/publications/Asia-Pacific%20Disaster%20Report%202019_full%20version.pdf

¹⁷ Sphere 2018. Sphere Handbook 2018. <https://spherestandards.org/handbook-2018/>

¹⁸ Note: In Integrated Child Development Services (ICDS), state governments provide a comprehensive package of services to pregnant women and new mothers, as well as to children under the age of six.

¹⁹ Kudumbashree is the poverty eradication and women empowerment programme implemented by the State Poverty Eradication Mission (SPEM) of the Government of Kerala. The name Kudumbashree in Malayalam language means ‘prosperity of the family’.

²⁰ WFP India. 2019. Country Brief. March 2019. <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000104500.pdf>

²¹ WFP. 2019. WFP India. Country Brief. August 2019. <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000108322.pdf>

²² Early recovery. N.D. People-Centered Humanitarian Action. <http://earlyrecovery.global/about-page/people-centered-humanitarian-action>

²³ International Committee of the Red Cross (ICRC). 2019. Accountability to affected people institutional framework. Geneva, Switzerland. https://shop.icrc.org/accountability-to-affected-people-institutional-framework.html?__store=default&_ga=2.118884557.594854955.1562905270-843855565.1562905270

²⁴ Global Cluster for Early Recovery (GCER) 2016. Accountability to the Affected Populations in Early Recovery: Examples of Good Practice. TECHNICAL WORKING GROUP ON AAP – MARCH 2016. https://www.undp.org/content/dam/geneva/docs/UNDPGeneva_AAP_ER_TWG_GoodPracticeCollection.pdf

Supported by UNICEF, Kudumbashree developed a unique exercise which is in line with the global approach of Accountability to Affected Population. An innovative Kerala model for ensuring transparency and people’s participation in disaster response and recovery was set up, Kudumbashree women collected data using a mobile application.²⁵ AAP surveys were conducted in over 60 countries after past disasters, mostly by civil society organisations. However, the AAP programme of Kudumbashree is unique, as this may be the first time in the world such an exercise was conducted by a government agency, as in Kerala, says Job Zachariah, United Nations State Coordinator for Kerala. “Besides the scale of Kerala exercise is large, covering people in 489 local governments. Kerala sets a model on transparency and people’s participation in disaster response which other states and countries could emulate”, he added.²⁶ An example of how accountability to affected populations can be institutionalized is shared in the Box 4.

Box 4. Institutionalizing Accountability to the Affected Children through Child Protection Undertakings: The Case of World Vision²⁷

World Vision India is a leader in the protection of child rights and promotion of their welfare. The themes on which it works in India range from education, disaster management, water and economic development. Across all these themes and work, World Vision is guided by the principles of encouraging child participation, child rights and equity along with ending violence against children. In terms of accountability, World Vision aspires to be highly accountable to the affected children for whom it works. This dedication towards the affected children is symbolized in its “Child Protection Undertaking”. This undertaking is a set of guidelines and modalities which all the partners, employees and volunteers at World Vision have to abide by during the programme activities. Some of the guidelines and protocols are described below:

- Personnel including staff, volunteers, interns and consultants will establish an atmosphere conducive for the development of children through their word, deed and demeanor. This includes listening to children and showing respect to them.
- Staff, interns, consultants, volunteers and visitors including sponsors will respect the local cultural context and behave appropriately with children in communities as per the behaviour protocols.
- Personnel including staff, volunteer, interns and consultants will not allow project children to visit their homes under any pretext without the prior knowledge and agreement of their superiors.
- Project children are not permitted to stay overnight in the home of World Vision personnel at any time.
- Staff will not employ children as domestic workers in their homes. Personnel including staff, interns, volunteers, consultants and visitors will not spend time alone with a child or children.
- There will always be another adult ("two adult rule" principle) who will be able to see the interaction with children. The exception to this may be in the event where personnel are employed as professionally recognized trained counsellors.
- Personnel including staff, interns, volunteers, consultants and visitors are always responsible for the interaction between an adult and a child even when it appears that a child is acting in a provocative manner.
- Personnel including staff, interns, volunteers, consultants and visitors will not touch private parts of the body, or touch the child in a way which will make the child uncomfortable.

²⁵ Mathrubumi. 2019. Kudumbashree sets innovative model for ensuring public participation in disaster response. <https://english.mathrubhumi.com/features/specials/kudumbashree-sets-innovative-model-for-ensuring-public-participation-in-disaster-response-1.4016861>

²⁶ Mathrubumi. 2019. Kudumbashree sets innovative model for ensuring public participation in disaster response. <https://english.mathrubhumi.com/features/specials/kudumbashree-sets-innovative-model-for-ensuring-public-participation-in-disaster-response-1.4016861>

²⁷ World Vision India. 2019. Study on Accountability to The Affected Children with Focus on Psychosocial Support in Kerala.

These guidelines and protocols are signed as an undertaking by all people including personnel, consultants, partners, volunteers and interns before they head out to the field to work with children. This enshrines accountability to the affected children in the organizational charter and sets a precedent for other organizations to follow. This practice is also closely aligned with the Core Humanitarian Standard (CHS). The idea of causing no harm is intrinsic in this policy. Also, it ensures that children have appropriate feedback and complaint mechanisms to report an untoward incident. This practice is also replicable and should be replicated across all agencies providing humanitarian assistance to children affected by crises.

A study²⁸ supported by a group of agencies (Caritas India, Christian aid, Save the Children and Islamic Relief) and conducted by AIDMI concluded that in India there is a strong commitment to AAP. Because agencies have been able to institutionalise the concept of AAP, it seems to be better defined and understood, especially in civil society circles. Agencies have also shown willingness to improve APP in each response by placing victims at the centre of relief and response activities. However, there is a need to make AAP systematic and systemwide in a federative and collaborative manner. Systems and processes of AAP cannot perform immediately in the wake of a disaster if not planned in advance.

5. Avoid discrimination of all kinds to provide just and inclusive humanitarian support.

Cast-based discrimination among other kinds of discrimination is widespread in Asia, including in South Asia. In several South Asian countries, the 2004 Asian Tsunami and its response revealed significant social divisions and discrimination affecting Dalit communities long into the post-disaster recovery efforts."²⁹ *Dalits* who often work as “manual scavengers” and daily-wage labourers are at the bottom of the social and economic hierarchy that has existed for centuries in South Asia. "India alone accounts for more than two-thirds of the over 260 million Dalits Worldwide."³⁰

Because disasters expose existing social inequalities, inclusive and people-centred approach - 'leaving no one behind' is suggested as the 3rd Pillar of the policy framework for recovery by the Kerala Post Disaster Needs Assessment (PDNA). The Kerala PDNA pointed out that “discussions with affected families in some tribal colonies in Wayanad and Malappuram suggested that many of the families in the affected areas had not been included in the beneficiary list for compensatory financial aid (INR 10,000, one-time cash assistance) to cover damages and loss. The Scheduled Tribe Development Department³¹ initiated an additional provision of INR 10,000 per family (sanctioned to 2,697 out of 3,419 families).”³²

Another study (March 8, 2019), carried out with the support of Christian Aid, UK and Oxfam India conducted by the National Dalit Watch (NDW) and the NGO, Rights, found discrimination (against scheduled castes/scheduled tribe³³ and Dalits) in Kerala flood relief. It revealed discrimination in relief as well as rescue efforts as easily accessible areas belonging to dominant castes were

²⁸ AIDMI. 2018. Study on the Existing Mechanisms of Ensuring Accountability to the Affected Population in India.

²⁹ International Dalit Solidarity Network. Working Globally Against Caste Discrimination. 2013. Equality in aid. http://idsn.org/wp-content/uploads/user_folder/pdf/New_files/Key_Issues/Disaster_response/EqualityInAid_web_version.pdf

³⁰ Claire A. ND. South Asia: New report highlights need to better target low-caste groups in aid response. https://ec.europa.eu/echo/field-blogs/stories/south-asia-new-report-highlights-need-better-target-low-caste-groups-aid_en

³¹ ‘Scheduled Tribes Development Department works for the upliftment of the Scheduled Castes and Scheduled Tribes’. For more information please visit: <http://www.stdd.kerala.gov.in/>

³² Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018). https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

³³ The framers of the Constitution took note of the fact that certain communities in the country were suffering from extreme social, educational and economic backwardness arising out of age-old practice of untouchability and certain others on account of this primitive agricultural practices, lack of infrastructure facilities and geographical isolation, and who need special consideration for safeguarding their interests and for their accelerated socio-economic development. These communities were notified as Scheduled Castes and Scheduled Tribes as per provisions contained in Clause 1 of Articles 341 and 342 of the Constitution respectively. For more information please visit: <https://ncst.nic.in/>

prioritized.³⁴ The study reported many cases of cast discrimination; for instance, a group of people refused to share space and food with Dalits in the camp. Overall, the effort aimed at making the government of Kerala and humanitarian agencies engaged in response recognise the discrimination and exclusion of Dalits, Adivasis and the most marginalized communities. "While a flood of this scale may occur once in 100 years, Dalit and other marginalised community settlements are exposed to floods and similar disasters every year, we need to have a framework for disaster preparedness that takes this into account. The social and political correctness of Kerala forces people to delegitimise the issue of caste, resting the onus of proving caste-based discrimination on those who are already oppressed."³⁵

Thus, efforts of agencies such as the National Dalit Watch³⁶ (NDW) and Rights, that tries to address discrimination of all kinds should be studied in depth and approaches of agencies that work for excluded communities such as Christian Aid (CA) should be replicated in disaster recovery practices across Asia. The European Union (EU) supported CA's humanitarian response programme to support 25,000 households with a targeted combination of livelihood assistance, water, sanitation and hygiene as well as essential non-food items in Kerala. In the first phase, 1,538 beneficiaries were given kits, comprising of essential items such as kitchen utensils, soap, antiseptic liquid, bucket, mosquito net and so on. In total 1,240 beneficiaries, especially single women and people with disabilities, together with the marginalised and vulnerable, who did not receive any livelihood support from any of the agencies, received help to address their immediate needs.³⁷ In short, recovery should be perceived as an opportunity to overcome all types of exclusion through structural reforms and prioritizing the needs of the vulnerable.

³⁴ The Times of India. 2019. Study finds discrimination in Kerala flood relief.

<https://timesofindia.indiatimes.com/city/thiruvananthapuram/study-finds-discrimination-in-kerala-flood-relief/articleshow/68317843.cms>

³⁵ National Dalit Watch. National Campaign on Dalit Human Rights. 2019. THE EXTENT OF INCLUSION OF DALIT AND ADIVASI COMMUNITIES IN THE POST DISASTER RESPONSE IN KERALA 2018. <http://www.ncdhr.org.in/wp-content/uploads/2019/05/KERALA-INCLUSION-REPORT.pdf>

³⁶ NDW Is an initiative spearheaded by National Campaign on Dalit Human Rights (NCDHR) to respond in an organized and systematic manner to the scenario of exclusion of Dalit communities during disasters.

³⁷ Christian Aid. 2019. Humanitarian assistance in response to Kerala floods in India. <https://www.christianaid.org.uk/about-us/programmes/humanitarian-assistance-communities-affected-kerala-floods>

Recovery

6. A long-term engagement with victims is needed to facilitate recovery.

World Vision India (WVI) is one of the country's largest child-focused humanitarian organisations. Over 26,000 families in Malapuram, Kottayam, Pathanamthitta, Palakkad, Wayanad, Idukki and Alappuzha districts were provided emergency relief materials by WV, these included dry rations, non-food household supplies, hygiene packs and more than 300,000 water purification sachets.³⁸ World Vision's Area Development Programmes (ADPs) which involve a long-term engagement in a geographical area is an effective model to address root causes of vulnerability and resilience building. The model allows WV staff to provide life-saving support in times of disaster as well as post-disaster long-term rehabilitation. Development of Child Friendly Spaces (CFS) as a strategy for sustainable recovery and development of children by WV is discussed in Box 5.

Box 5. Child Friendly Spaces (CFS)³⁹

CFSs helped children recover from their fear and trauma, through different fun and creative playtime activities; like games, sports, singing, drama, painting, group interactions etc. CFSs are an effective means for providing emotional and psycho-social support to children affected by disasters. Thirteen (13) Child Friendly Spaces were activated that operated out of community centres which were socially and physically accessible to all. This also allowed parents to focus on other concerns as the children were taken care of. Children along with their parents, guardians and caretakers were involved in developing the support required for CFS. CFSs were operated from the child-care centres (*Anganwadis*)⁴⁰ in the villages, closer to children's homes and under parental and Panchayati Raj (local self-governance) Presidents' supervision. The permission to use the Anganwadi centre for CFSs after its regular functions in the evenings or school holidays was secured by the Panchayat Presidents. This arrangement was made to allow regular Anganwadi services to continue smoothly. Besides, provisions of water and toilet facilities were assured at the centres. Several outdoor and indoor, age appropriate games and recreational activities were conducted with children under the supervision of the CFS facilitators. As part of the initiative, Caritas India created awareness among families and duty bearers about Village Level Child Protection Committee, to oversee the protection of children and take timely measures, as provided by the Government's Integrated Child Protection Scheme (ICDS). The CFSs displayed the Code of Conduct for Child Protection Policy and installed feedback and suggestion boxes.

7. Disaster recovery is an opportunity for creating Green Jobs.

The reconstruction of houses and public infrastructures offers a major opportunity for building new skills and green job creation. However, it is important that an Integrated Strategic Environmental Assessment be undertaken to mitigate the negative impact of the surge in construction activities during recovery. This approach developed by UN Environment has been implemented during the post-conflict reconstruction of Sri Lanka and the post- earthquake disaster reconstruction of Nepal.⁴¹ One of the key priority action areas to build a green and resilient Kerala, identified under the essential building blocks of Nava Keralam: Building a Green and Resilient Kerala by the Government of Kerala is "Sustainable Building Guidelines (see the Box 6 below).

Box 6. Sustainable Building Guidelines⁴²

³⁸ World Vision India. 2019. Kerala Flood Response. https://www.worldvision.in/cmsadmin/uploads/Relief_Response_Update6.pdf

³⁹ Caritas India. 2019. Athijeevan (meaning more life): A Story of Endurance: Building Back Better amidst flood and fury. <https://www.caritasindia.org/wp-content/uploads/2019/05/Athijeevan.pdf>

⁴⁰ *Anganwadi* is a government-sponsored child-care and mother-care centre.

⁴¹ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018), https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁴² Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018), https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

“Kerala should reverse the trend of constructing ‘modern’ buildings that are not suitable for local weather conditions and which also encourage high energy consumption. Instead, it should adopt locally “sustainable building guidelines”, similar to the one in the United Kingdom, whereby each building is systematically analysed for its carbon footprint based on its construction and operation. Use of locally available material is maximised and need for energy for cooling and lighting is minimised. This will also create thousands of new ‘green jobs’ in the state.”

The International Labour Organisation (ILO) in coordination with the Department of Labour & Skills, in the months of November- December 2018, initiated a Training Needs Assessment (TNA) - stage 1 - for Skill Development and Entrepreneurship aimed at creating sustainable and green jobs. The construction sector was taken as a pilot sector for the study owing to its contribution to employment and its importance in the post disaster rebuilding stage.⁴³ According to the New Kerala (Nava Keralam) vision of the Government of Kerala, there are many other areas where Kerala can show the path for creating green jobs. For example, “the Cochin International Airport Limited, the main airport in Kerala, is the first international airport in the world to go fully solar. Such expertise can be built in many other areas including waste management, ecotourism, and organic farming. Kerala should not only just aspire to be a green state, but also a provider of such expertise to the rest of the world.”⁴⁴

8. Asia can benefit from psychosocial support efforts made in Kerala recovery.

Psychosocial support for children and their families is often missing from relief and rehabilitation efforts. Counselling not only helps children overcome fear but also enhances their understanding of risks that are intensified in the aftermath of an emergency. Such risks include abuse, exploitation and trafficking. Psychosocial support also helps create awareness about health and hygiene and preparedness measures that need to be taken at household and community levels. Such comprehensive understanding and application of psychosocial support is hardly shared and transferred between countries of Asia. UNICEF initiated psychosocial counselling among women and children across the state in the aftermath of the deluge. It supported five programmes for developing the mental health of the children in flood-affected areas. These five programmes were conducted by Childline, NGO MYRTEL, Bengaluru-based National Institute of Mental Health along with State Council of Educational Research and Training (SCERT), magician Gopinath Muthukad with his magic shows, and UNICEF’s partnership with the state police for HOPE. The initiative aimed at giving counselling to as many as 3 million children.⁴⁵ An example of relevance of psychosocial support in Kerala recovery is shared in Box 7.

Box 7. Kudumbshree: Making a Difference⁴⁶

“The 2018 floods had left an indelible mark on the psyche of children. Many children had lost their study materials and learning aids. Some of them had also experienced physical/health issues and most importantly many children were affected with mental stress and anxiety. These issues had to be addressed. The government and agencies can provide immediate support to manage the first two issues, i.e., by providing study materials/educational kits and also can solve their health/physical issues. But to solve the mental stress and anxiety of the children continuous social support is required. Otherwise the mental stress will affect their confidence, intellectual ability and may affect their personality development adversely. We should try to answer children’s questions honestly and respond the best we can to their requests. Children and adolescents do

⁴³ ILO. 2019. Rebuilding lives post disaster and strengthening employment.

https://www.ilo.org/newdelhi/info/public/sp/WCMS_672791/lang--en/index.htm

⁴⁴ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018),

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁴⁵ The New Indian Express. 2018. Kerala floods one month after: Unicef’s healing touch for the flood-hit.

<https://www.newindianexpress.com/states/kerala/2018/sep/24/kerala-floods-one-month-after-unicefs-healing-touch-for-the-flood-hit-1876283.html>

⁴⁶ World Vision India. 2019. Study on Accountability to The Affected Children with Focus on Psychosocial Support in Kerala.

better when they understand the situation they have just gone through and they will respond very effectively if such disasters happen in the future again.

Kudumbashree was at the forefront of the flood relief activities including rehabilitating the affected, cleaning the houses and providing counselling to affected people including children. Kudumbashree gender development programmes attempted to create awareness among the women as well as sensitizing the society around. The Community counselling programme is a major initiative of Kudumbashree under Gender development. The Community Counsellors are counselling educators to provide direct counselling and mentoring support to the needy. Under Kudumbashree, they made timely interventions in the flood affected districts.

The major role they took was providing mental health services to different population groups and helping them to come out from trauma. Community members (adults and children) were given individual and group counselling in rehabilitation camps and directly at their houses. They were also given health awareness classes in the camps to prevent different health issues from propping up. Kudumbashree also supported the children through the Balasabha programme. The Balasabhas are the neighbourhood network of children. Each Balasabha consists of 15 – 30 children in the age group of 5 – 18 years. The prime objective of constituting Balasabhas is to prevent inter-generational transmission of poverty through capability enhancement of children.”

– Anishkumar M.S., Kudumbashree

9. Support recovery of MSMEs for local market recovery.

Considered an engine of growth all over the world, the Micro, Small and Medium Enterprises (MSMEs) were badly hit by the floods in 2018. They play an important role in job creation especially for youth, women and disadvantaged communities. The Handloom and Coir⁴⁷ sector is a major traditional industry in Kerala, which provides direct and indirect employment to 0.17 million households. Participation of women, landless and marginalized communities in the handloom sub-sector is high. In 1998, as part of the People’s Plan Campaign to promote local self-governance, Kudumbashree was created by the Government of Kerala. Now, Kudumbashree boasts of over 30,000 women enterprises running successfully in various production, service and trade sectors.⁴⁸

The State Disaster Management Authority of Kerala has formulated and implemented a new scheme 'Ujjeevana' for rehabilitating the livelihoods of flood affected people through bank loans. The scheme aims to offer assistance at various levels of repayment schedule by arranging margin money, discount on interest rate charged on the loan, and a support scheme.⁴⁹ The basic condition for eligibility under the scheme is that the person should have got relief from the Chief Minister's Distress Relief Fund (CMDRF). This loan scheme is delivered through concerned Government departments to people coming under various sectors such as MSMEs, commercial establishments, shops, animal husbandry, poultry, Kisan Credit Card holders and beekeepers. People from 1,260 flood affected villages recognized by the Government are eligible for the loan. A margin money⁵⁰ of Rs. 0.2 million (2,600 USD approximately) is being provided through Ujjeevani scheme to eligible persons.⁵¹ The State government support is 25% of Term Loan up to Rs 0.2 million as Margin Money.⁵² MSMEs employ hundreds of workers and play an important role in local market recovery.

Availability of credit in the aftermath of a calamity is considered crucial for business continuity. “Government envisages that around 50,000 people will receive help from this scheme and also it

⁴⁷ Coir is the fibre from the outer husk of the coconut, used in potting compost and for making ropes and matting.

⁴⁸ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME.

https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁴⁹ Information Public - Relations Department, Government of Kerala. Kerala Calling. 2019.

https://kerala.gov.in/documents/10180/668459/KC_August%202019

⁵⁰ Margin money is the amount that a borrower need to pay from his own savings or funds to the bank or institution from whom they are trying to obtain a loan.

⁵¹ Rebuild Kerala. 2019. Livelihood Restoration. <http://www.rebuild.kerala.gov.in/en/livelihood>

⁵² District Industries Centre. ND. <https://kannur.nic.in/district-industries-centre/>

will set a tone for other states in the country to follow this scheme.”⁵³ The Success of schemes such as ‘Ujjeevana’ can be evaluated and replicated in other parts of Asia with necessary modifications to suit local conditions.

10. Protect fragile wetland agriculture systems for conservation of biodiversity and livelihoods.

According to the first-ever Global Wetland Outlook released by the Ramsar Convention, Wetlands (which directly or indirectly provide almost all of the world’s fresh water) are disappearing three times faster than forests; approximately 35% of the world’s wetlands were lost in 45 years between 1970-2015.⁵⁴ This is a huge loss to those who depend on them for water, food, shelter, livelihoods, medicines and so on. “Defined as land areas that are flooded with water, either seasonally or permanently, wetlands are natural buffers against disasters.”⁵⁵ They can protect and absorb natural shocks ranging from cyclones to floods, including tsunamis. Wetlands can also speed up recovery. For example, “after a 1999 cyclone that hit Odisha in eastern India, rice paddies that were protected by mangroves recovered their food production much more quickly than croplands without the buffer.”⁵⁶ The Box 8 below, briefly presents key factors causing wetlands degradation in Kerala.

Box 8. 2018 floods: A realization of wetlands degradation in Kerala?⁵⁷

The numerous wetlands in the plains have come under threat due to entry of agricultural runoff causing eutrophication, and encroachment for various uses including construction, disrupting the various ecological and economic services that these wetlands provide. Excessive withdrawal of groundwater in the plains is also reducing inflows into the wetlands. The management of wetlands for sustainable fisheries, tourism, transportation, etc. is inadequate.

The agriculture and related activities in Kuttanad in Kerala, which is an area below sea level, are expected to be severely affected by climate change.⁵⁸ Kuttanad delta is the only system in India that has been practicing rice cultivation below sea level in the past two centuries. FAO has been supporting the Kuttanad “Below Sea-level Farming System”; farmers of Kuttanad have developed and mastered the spectacular technique of below sea level cultivation over 150 years ago.⁵⁹ The system of below sea-level farming is an approach that can be used to cope with the imminent climate impacts in coastal areas and evolve efficient methods to deal with soil and pest-related issues in agriculture.⁶⁰ This system also allows fisheries systems, livestock and home gardening activities. The Kerala administration has been working with FAO to protect and strengthen the Below Sea-level Farming System as a measure to support livelihoods of at risk and flood affected farmers.

11. Potency of crowd funding-based social media initiatives to support recovery.

Successful use of social media (such as Facebook, WhatsApp, and twitter to enhance recovery efforts as communication tools during disasters is not a new phenomenon. During the Kerala floods, thousands of Indians from different parts of the country and outside India used social media to establish communication and to mobilize support. “The web-based application keralarescue, as

⁵³ State Level Bankers’ Committee, Kerala. 2019. Minutes of the 126th Meeting of SLBC, Kerala. http://www.kudumbashree.org/storage//files/9wgfi_minutes_126_slbc_final.pdf

⁵⁴ Mohan V. 2018. The Times of India. 2018. Wetlands disappearing 3 times faster than forests threatening fresh water supplies: Report. <https://timesofindia.indiatimes.com/india/wetlands-disappearing-3-times-faster-than-forests-threatening-fresh-water-supplies-report/articleshow/65974012.cms>

⁵⁵ Ramsar. 2017. Wetlands: a natural safeguard against disasters. https://www.ramsar.org/sites/default/files/documents/library/wwd2017_handout1_e.pdf

⁵⁶ Ramsar. 2017. Wetlands: a natural safeguard against disasters. https://www.ramsar.org/sites/default/files/documents/library/wwd2017_handout1_e.pdf

⁵⁷ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁵⁸ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018), https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁵⁹ FAO. ND. Family Farming Knowledge Platform. Kuttanad Below Sea Level Farming System. <http://www.fao.org/family-farming/detail/en/c/283069/>

⁶⁰ FAO. ND. Kuttanad Below Sea Level Farming System. <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/kuttanad-below-sea-level-farming-system/detailed-information/en/>

well as the use of social media including WhatsApp by voluntary groups and government officials helped to identify victims, camp locations, requirements in the camps, volunteer registration, and facilitate both rescue and relief operations.”⁶¹ There is no doubt about how powerful social media campaigns can be these days. But social media can also be used to run fake campaigns. For example, the Kerala Police registered 19 cases related to fake campaigns on social media over relief work; these cases were registered for spreading false campaigns on relief works, for example, discouraging people from contributing to the Chief Minister’s Disaster Relief Fund (CMDRF) and the spread of misinformation about donations made by the public not reaching relief camps.⁶² Some key examples of social media contributions in Kerala recovery are captured in Box 9.

Box 9. Social Media in Kerala Flood Relief⁶³

The corporate sector showcased their social responsibility by including certain factors in their sites and apps for Kerala relief which were widely publicized and utilized by people. Amazon’s introduction of ‘Relief kit’; Paytm’s ‘Donate for Kerala’ option; Zomato’s simple and bulk food orders for places in Kerala; Telecom operators like Idea, Airtel, Vodafone, BSNL and more, gave free data services and gave options like loans (to existing telecom customers) where calls could be made without balance (in their pre-paid accounts), for them to pay later.

‘I am For Alleppey’, a social media campaign on Facebook launched by the district administration (led by District sub-collector Krishna Teja) to help rebuild Alappuzha after the Kerala floods has been quite successful in mobilising support for victims. The initiative seeks to rebuild damaged hospitals, schools, *Anganwadies* and other public institutions, including restoration of livelihoods and damaged houses for the most vulnerable and poor. The campaign team is close to building nearly 500 homes and provided resources for infrastructure for schools and hospitals, largely in the Kuttanad area. Businessmen and celebrities came forward to help and donate, giving people cattle and ensuring safe potable water. Social media these days possess endless power; power that can change lives. Social media can be effectively used to communicate with masses and add value to public-private efforts. For example, when the page, ‘I am for Alleppey’ was launched — on 14 September 2018 — within six hours, a woman from Kerala who was living in Andhra Pradesh agreed to adopt a primary health centre in Kuttanad. Countries from Asia need to use social media much more to seek public participation as well as creating awareness about gaps and achievements in recovery. Box 10 below, briefly describes role played by a social networking app called Qkopy during the Kerala floods.

Box 10. Role played by Qkopy – a social networking app during floods⁶⁴

Qkopy is a social networking app released earlier this summer. Qkopy is playing a very critical role in getting information out to people stranded in the still flooded parts of Kerala, or attempting to know about the current status of flooding, waterlogging and traffic movements, for instance. One needs to have the Kozhikode City Traffic Police phone number (9497975656), and the Qkopy app will send instant updates as shared by the police. These are one-way communications alerting users about the areas that are safe to visit and areas that should still be avoided. The app is available for Android and iOS devices and is free to download and use.

Recently Kerala Government has partnered with Qkopy to Track Coronavirus Updates.⁶⁵

⁶¹ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018),

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁶² The News Minute. 2019. Kerala police register 19 cases for fake campaigns on social media over flood relief.

<https://www.thenewsminute.com/article/kerala-police-register-19-cases-fake-campaigns-social-media-over-flood-relief-107130>

⁶³ Sathya P. A Study on the use of Social Media as a Tool of Citizen Journalism with Special Reference to the Updates on Kerala Flood Relief. *J Adv Res Jour Mass Comm* 2018; 5(4): 50-53.

⁶⁴ Mathur V. 2018. Kerala Floods: Technology Can Help During Natural Disasters And The Devastation Left in Their Wake.

<https://www.news18.com/news/tech/kerala-floods-technology-can-help-during-natural-disasters-and-the-devastation-left-in-their-wake-1847869.html> (News18)

⁶⁵ Qkopy. 2020. Kerala Government Partners with Qkopy to Track Coronavirus Updates. <https://qkopy.com/>

Building Back Better (BBB)

12. Building skills of local masons is important for resilient infrastructure.

According to the Kerala Post Disaster Needs Assessment, practising and experienced masons need to undergo fresh training to ensure that all houses are indeed built back better.⁶⁶ Local masons play an important role in reconstruction of houses and community infrastructure. Thus, it is important that their capacities are built. Investment in training to create a pool of well-trained masons is critical for building back better.

UN-Habitat conducted training programmes for Masons in the severely affected districts of Kerala State. In addition to men, women masons from Kudumbashree (women's cooperative formed by Government of Kerala). The training was intended to provide knowledge, techniques and various disaster resilient shelter construction and retrofitting practices with the objective “Build Back Better and Safer” in mind. The training was provided by trained Engineers from IIT Roorkee and other renowned engineering universities in the country.⁶⁷

13. Re-think sustainability of tourism models in Asia the way Kerala is thinking.

Tourism contributed 10% to the Gross State Domestic Product of Kerala and an estimated share of 23.5% of the total employment in the State between 2009 and 2012. It accounts for about 75% of the all India tourist visitors as per 2016 Statistics.⁶⁸ Generally speaking, natural disasters create an adverse effect on tourism. However, domestic and foreign tourist arrivals went up in Kerala after the floods. There was an increase of 0.63 million tourists (domestic and foreign) during April-June 2019 compared to the previous year. This translates into an impressive growth rate of 14.81 per cent per year.⁶⁹ Like Kerala in India, tourism in many countries of Asia such as Thailand, Philippines and Sri Lanka, including most Small Island Developing States (SIDS) is essentially dependent on nature. Thus, preservation and protection of plants, trees, forests, birds and animals is in the interest of countries from the Global South. Thus, rampant development and construction that harm forests and ecology and diminish beauty of lands must be avoided at all costs.

As the waters started receding, the Kerala tourism department commissioned a survey in 70 major destinations to find out the loss damage to facilities and connectivity. The Tourism Readiness Survey, conducted between September 5 and 15 of 2018 found that most of the major destinations were ready to resume operations. The tourism department also lost no time in launching new campaigns to draw visitors back to the state. One such campaign was called “The Sun is Out”, another, “This Time For Kerala”, echoing the 2010 South Africa World Cup slogan in the football-crazy state.⁷⁰ Within tourism, a two-pronged approach is proposed, focused on (a) reconceptualizing the “Responsible Tourism” policy framework for disaster preparedness, and (b) Enhancing community share in tourism spending for economic resilience. (see figure 1).⁷¹

⁶⁶ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018), https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁶⁷ UNHABITAT. 2019. Masons Training on Disaster Resilient Construction Practices. http://www.fukuoka.unhabitat.org/info/news/pdf/IND_Press_Release_Masons_Training_Kerala_Idukki_0319.pdf

⁶⁸ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁶⁹ Livemint. 2019. Domestic, foreign tourist arrivals go up in Kerala after floods. <https://www.livemint.com/news/india/domestic-foreign-tourist-arrivals-go-up-in-kerala-after-floods-1565173594733.html>

⁷⁰ Khan, F. 2018. Financial Express. Flood-hit Kerala has to sensibly re-think its tourism model – sustainability is a must.

<https://www.financialexpress.com/india-news/flood-hit-kerala-has-to-sensibly-re-think-its-tourism-model-sustainability-is-a-must/1348176/>

⁷¹ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

Figure 1: Responsible Tourism



Box 11. Building resilience in areas of ecotourism, tourism and religious tourism sites inside forest)⁷²

Around five million tourists are visiting forest areas every year, including half a million foreign visitors. At present, there are no disaster response mechanisms in these sites. Investments are needed to build up resilience of infrastructure, and disaster response mechanisms in terms of resources, equipment, training and manpower. Places of mass tourism need to have disaster response cells, all weather vehicles, boats, etc. The approved Master Plan needs to be implemented in places of religious tourism inside forests. Electric vehicles / NMVs need to be introduced in all ecotourism destinations to make them carbon neutral and energy efficient.

14. Green recovery is a way forward for Asia.

Kerala has already demonstrated how 9,700 tonnes of non-recyclable plastic waste (food storage containers, disposable diapers, bottle caps, PVC pipes and so on) can be used in laying 246 kilometres of road in the state.⁷³ For the first time the UN agencies (UNDP, UNICEF, UNESCO, UN Women, UNFPA, UNEP, WHO, WFP, ILO and FAO) prepared a Post Disaster Needs Assessment (PDNA) Report in India for Kerala recovery. The report highlighted the international examples and models for building back better Kerala in 16 sectors. It suggested that Kerala could become the first green state in the country by building on the four pillars of: 1. integrated water resources management; 2. eco-sensitive and risk informed approaches to land use and planning; 3. inclusive and people centred approaches; and 4. adopting knowledge, innovation and technology.⁷⁴ “The Government accepted the UN recommendations to integrate building back better and greener as its operating philosophy in its reconstruction plan ‘New Kerala -Nava Keralam’, supported by the UN agencies and the World Bank”.⁷⁵

The report prepared in just 20 days with support from 76 experts from 10 UN agencies and European Union across 13 sectors, highlights the need for green housing, infrastructure and jobs, including green technologies, particular in the context of housing and sanitation. Never before in the history of PDNAs in India has so much emphasis been put on “Green Recovery” options and

⁷² Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁷³ Bhatia A. 2019. NDTV. Kerala Utilises Non-Recyclable Plastic Waste For Making New Roads. <https://swachhindia.ndtv.com/kerala-utilises-non-recyclable-plastic-waste-for-making-new-roads-34587/>

⁷⁴ UN. 2018. UN presents rebuilding strategy to Kerala Chief Minister. <https://in.one.un.org/un-press-release/un-presents-rebuilding-strategy-to-kerala-chief-minister/>

⁷⁵ GFDRR. 2019. GREENING RECOVERY: THE CASE OF KERALA FLOODS 2018. <https://www.gfdr.org/en/events/WRC4/session4b>

solutions. What is remarkable is that the assessment not only reported losses but saw opportunities for green recovery; a clear direction for the global South. “Rebuild Kerala Initiative (RKI) is guided by Government of Kerala’s vision for recovery and movement towards Nava Keralam. RKI envisions a green and resilient Kerala where higher and ecologically safe standards of infrastructure, improved conditions of living and new major development projects ensure that people and assets are able to withstand the onslaught of future disasters. “– G.O.(P)No.16/2018/P&EA.⁷⁶ An idea of how Green Technology Centres can assist Kerala in achieving green recovery is included in Box 12.

Box 12. Green Technology Centres⁷⁷

Every household in Kerala has multiple possibilities for application of greener technologies such as household composting, solar energy and resource recycling. Technical assistance for eco-friendly building practices can also be provided by such centres. Green Technology Centres could be established in local bodies, where young people could be trained in the installation and maintenance of green technology. This concept could be initially tested as a pilot project and replicated subsequently, as relevant, based on lessons learned.

15. It is crucial to address the nexus between environment, gender and disasters in recovery.

In January 2019, the United Nations Environment Programme (UNEP) launched a three-year project, “Up-scaling community-based resilience through ecosystem-based disaster risk reduction” to scale-up ecosystem-based disaster risk reduction interventions and promote their large-scale implementation in various countries which include Ethiopia, Haiti, India, Indonesia and Uganda. In India, its focus is on developing capacity to undertake ecosystem restoration as part of the Mahatma Gandhi Rural Employment Guaranteed Scheme, a nation-wide programme, which employs 2.6 million women in Kerala.⁷⁸

The UNEP initiative in Kerala emphasises the nexus between environment, gender and disasters. It uses the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)⁷⁹ as a social protection tool, in case of Kerala, for up-scaling ecosystem-based disaster risk reduction during recovery. In Kerala, the project is also developing training modules, a handbook and training on ecosystem restoration for disaster risk reduction targeting local government staff and elected officials. UNEP efforts are showing that women can be involved in the redevelopment of affected areas in an ecologically sustainable manner.

Women, environment and natural disasters are inherently linked. Often referred to as custodians of natural resources, women tend to bear the most of the burden of natural disasters and climate change. Ecosystem-based Disaster Risk Reduction (Eco-DRR) is “the sustainable management, conservation and restoration of ecosystems to provide services that reduce disaster risk by mitigating hazards and by increasing livelihood resilience” (Partnership for Environment and Disaster Risk Reduction).⁸⁰ Ecosystem-based disaster risk reduction has received a much-needed attention to address the nexus between environment, gender and disasters in Asia in recent times. “However, there is a failure among policy makers at the national level and community at the local level to recognise ecosystem-based approaches as effective constituents of disaster risk reduction and climate change adaptation.”⁸¹

⁷⁶ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁷⁷ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁷⁸ UNEP. 2019. Promoting livelihoods through nature-based disaster risk reduction in India. <https://www.preventionweb.net/news/view/68307>

⁷⁹ The mandate of the MGNREGA is to provide at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work.

⁸⁰ IUCN. ND. About ecosystem-based disaster risk reduction (Eco-DRR). <https://www.iucn.org/theme/ecosystem-management/our-work/environment-and-disasters/about-ecosystem-based-disaster-risk-reduction-eco-drr>

⁸¹ Saikia A. and Rana S. IUCN. 2016. Regional Assessment of Ecosystem-based Disaster Risk Reduction and Biodiversity in Asia. https://www.iucn.org/sites/dev/files/content/documents/relief_kit_asia_regional_assessment_report.pdf

Ecosystem-based disaster risk reduction initiatives are of great relevance to Asia, especially when climate change progressively increases the frequency and intensity of natural hazards. Development cooperation partners such as the Japan International Cooperation Agency (JICA) have proactively supported the Ecosystem-based Disaster Risk Reduction (ECO-DRR) in many countries in Asia including Myanmar (enhancement of coastal disaster prevention through mangrove afforestation) and China (restoration of forest vegetation after the Sichuan earthquake).⁸²

16. Pension for the poor farmers can reduce burden of recovery.

Pension is an important protective social protection measure, which is often not available to the informal sector economy workers, including farmers. Recognising its importance in recovery, the Kerala Government passed (November 2019) a new bill to constitute a Farmers' Welfare Board in the state - first of its kind in the country. As per the Act, all the farmers who possess a maximum of 15 acres of land or who lease land up to 15 acres are entitled to get the benefits of the welfare board and will be entitled to pension on reaching 60 years of age. Plantation farmers—rubber, coffee, tea, and cardamom—who have seven and half acres of land will also be entitled to the benefits of the scheme.

Other than the pension, benefits include aid for those who suffer from chronic illnesses; aid for the members or their children's education and marriage; as well as compensation for a member and their family who may have an accident, wildlife attack, accidental poisoning or death.⁸³ Farming is considered risky, especially in areas prone to multiple natural hazards. Box 13 focuses on issues of low awareness to crop insurance schemes in Kerala. In this context, the introduction of pension scheme for farmers is not a common measure. Countries from the Global South and multilateral development cooperation partners could draw lessons for strengthening such arrangements across Asia.

Box 13. Low awareness of crop insurance schemes⁸⁴

In addition to national schemes such as the Pradhan Mantri Fasal Bima Yojana (PMFBY) and the Weather Based Crop Insurance Scheme (WBCIS), Kerala has its own crop insurance scheme. However, uptake remains less than 10% across the State.

17. Consider existing social protection schemes as a medium to reach out to disaster victims.

According to UNESCAP, “at least 1.2 billion people live on less than US\$3.20 a day in Asia and the Pacific. Approximately six in ten people in the region do not have access to adequate social protection which contributes to high levels of poverty, lower productivity and social exclusion. Almost half of them are women and two third in informal sector”.⁸⁵ Asia and the Pacific bears the brunt of the world's large-scale disasters. Social protection programmes can increase household resilience to shocks. With social protection, families can bounce back to higher productivity more quickly once the crisis ends, offering a significant boost to the economy. Furthermore, the existence of an effective national social protection system reduces the often-huge cost of providing emergency support following crises.⁸⁶

⁸² JICA. ND. Ecosystem-based Disaster Risk Reduction (Eco-DRR). JICA's Eco-DRR Cooperation in Developing Countries. https://www.jica.go.jp/english/our_work/thematic_issues/disaster/c8h0vm0000bvqtv9-att/Ecosystem-basedDisasterRiskReduction.pdf

⁸³ Newslick. 2019. Kerala Govt to Form Welfare Board, Ensure Pension and Financial Support for Farmers. <https://www.newslick.in/Kerala-Govt-Welfare-Board-Pension-Financial-Support-Farmers>

⁸⁴ Government of Kerala. 2019. REBUILD KERALA DEVELOPMENT PROGRAMME. https://www.preventionweb.net/files/67193_rebuildkeraladevelopmentprogramme.pdf

⁸⁵ UNESCAP. 2017. Extending Social Protection Coverage in Asia and the Pacific.

<https://www.unescap.org/sites/default/files/Social%20Protection%20Factsheet%202017.pdf>

⁸⁶ UNESCAP. 2018. Why we need social protection. https://www.unescap.org/sites/default/files/Social_Protection_module_1_English.pdf

After the Kerala floods, the Government suggested augmentation of social protection programmes for the most vulnerable. It was suggested that "the existing social protection programmes for the most vulnerable, like widow pension, elderly pension, pension for Persons with Disabilities (PWDs), and scholarships for Scheduled Caste/Scheduled Tribe (SC/ST) students, could be increased for 4–6 months to address their increased vulnerabilities and risks to disasters. Similarly, ration supplies for Female Headed Households (FHHs) and SC/ST communities would be doubled for 4–6 months."⁸⁷ "The government has used the social protection provisions system as a policy tool to reduce vulnerability and exclusion among affected people in the time following the floods. District collectors distributed funds to key departments like the Social Justice Department, Scheduled Caste Development Department⁸⁸ and Scheduled Tribe Development Department⁸⁹ and provided flexibility of use to reach out to the neediest."⁹⁰

In view of the likelihood of increased demand for employment on public works due to the floods, provision for additional employment over and above 100 days per households under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was made by the Central Government. A notification was issued to extend benefits by an additional 50 days of employment per household under MGNREGA in 761 villages (7 districts) in Kerala.⁹¹

In response, Kerala generated more than 50 million person days in the financial year 2018-2019, a significant jump from its target. While the central government had sanctioned 55 million person days at the beginning of the financial year for Kerala, until July 2018, Kerala had not crossed 25 million person days. As on February 14, 2019, over 1.6 million individuals benefited from the scheme. Out of this, after August 16, 2018, over 1.1 million individuals were provided employment, of which over 0.5 million individuals were newly employed after the flood.

The beneficiaries under the scheme helped restore farmlands, canals, streams, wells and rivers, in addition to common public assets such as school playgrounds, Anganwadis, mangroves and streetlights, all of which had been rendered useless after the floods.⁹²

⁸⁷ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018),

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁸⁸ For more information about Scheduled Cast Development Department please visit <https://scdd.kerala.gov.in/>

⁸⁹ For more information about Scheduled Tribe Development Department please visit <http://www.stdd.kerala.gov.in/home-5>

⁹⁰ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018),

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

⁹¹ Government of India. Ministry of Rural Development. 2019. Letter dated February 07, 2019.

https://nrega.nic.in/netnrega/writereaddata/Circulars/2379Upload_Kerala_flood_letter_7Feb19.pdf

⁹² Kurian S. The NEWS Minute. 2019. How NREGA helped in rebuilding Kerala, as well as provided livelihood to people.

<https://www.thenewsminute.com/article/how-nrega-helped-rebuilding-kerala-well-provided-livelihood-people-97178>

Disaster Risk Reduction

18. Updating disaster management plans should be an annual and ongoing exercise.

There is no point in having outdated plans for disaster management. Plans need to be revisited and revised every year to take into account changing hazard and risk scenarios. Following the August 2018 floods, the Kerala State District Disaster Management Authority (KSDMA) felt the need to upgrade the four-year-old District Disaster Management Plan (DDMP) of the Ernakulam district for improved coordination and disaster preparedness. "The department which prepared the DDMP in 2015 did not have an action plan to deal with the flood and waterlogging issues. Even though it is mandated by the 2005 Disaster Management Act, it did not upgrade it every year."⁹³ The plan is being prepared in association with Sphere India, an NGO. Since August 2018 floods, Sphere India has helped many other districts in Kerala to update, revise and finalise their existing DDMPs. Some key issues relating to disaster preparedness are discussed in the Box 14.

Box 14. Disaster Preparedness⁹⁴

Since Kerala had not faced a big disaster since 1924, the government and other stakeholders did not prioritize disaster management. The people did not take disaster preparedness seriously either. The Government of India passed legislation on disaster management called the "DM Act 2005". Subsequently, in 2009, the government finalised a national policy on disaster management which focuses on strengthening the disaster management system and building capacity of the local level of governance. Under the policy, both national and state level institutions are to be strengthened towards enabling them to take actions for pre-disaster risk reduction and post-disaster response. The lessons of 1924 could be translated into the people habitually taking pre-disaster actions.

Based on valuable lessons learnt from the Cyclone 'Ockhi', which killed over 350 people from southern Tamil Nadu and Kerala, India between 30 November and 3 December 2017⁹⁵ and the 2018 floods, the Kerala State Disaster Management Authority (KSDMA) has updated Standard Operating Procedures (SOP), "Orange book of disaster management – Kerala – SOP and emergency support functions plan", and adopted new protocols for disaster management in the State – "Monsoon preparedness and emergency response plan". According to the Government, "this plan will be a season-specific dynamic sub-plan of the Orange book of disaster management – Kerala. This plan will be updated every year after receiving the first Long Range Forecast of the India Meteorological Department."⁹⁶ As a positive sign, during the field mission to gather data for this publication, it was reported that there were simply not enough boats to move people at the time of floods. The Government and community have already responded and procured enough boats for moving people as may be required.

19. Recovery effort should lead to more prepared communities.

ON August 29 2019, Caritas India launched a programme called "Navajeevan", which is intended to develop 320 disaster resilient communities by strengthening village disaster management committees.⁹⁷ In Kerala, Caritas India is supporting 12,199 families with Wash, Shelter, and Livelihood in the recovery phase across 322 villages under 13 districts with the help of 31 partners.⁹⁸

⁹³ The Indian Express. 2019. Disaster plan to be dusted off. <https://www.newindianexpress.com/cities/kochi/2019/nov/05/disaster-plan-to-be-dusted-off-2057103.html>

⁹⁴ Kumar S. NIDM. 2019. HELP Global Report on Water and Disasters 2019: Floods in Kerala, India in September, 2018. http://www.wateranddisaster.org/cms310261/wp-content/uploads/2019/07/HELP-Global-Report-on-Water-and-Disasters-D9-20190607_s.pdf

⁹⁵ FAO and ICSF. 2019. Cyclone Ockhi – Disaster risk management and sea safety in the Indian marine fisheries sector. Rome, FAO. 72 pp. Licence: CC BY-NC-SA 3.0 IGO. <http://www.fao.org/3/ca2904en/CA2904EN.pdf>

⁹⁶ Rajwi, T. 2019. The Hindu. New protocols for managing disasters. <https://www.thehindu.com/news/national/kerala/state-adopts-new-protocol-for-disaster-management/article27108476.ece>

⁹⁷ Caritas India. 2019. Caritas India launched Navajeevan for Kerala flood affected people. <https://www.caritasindia.org/caritas-india-launched-navajeevan-for-kerala-flood-affected-people/>

⁹⁸ Caritas India. 2019. Athijeevan: Fighting back to attain stability after Kerala Flood. <https://www.caritasindia.org/athijeevan-fighting-back-to-attain-stability-after-kerala-flood/>

As a way forward, all the partners were encouraged to form Village Disaster Management Committee (VDMC) and a Village Disaster Management Plan (VDMP) in all 317 villages.

This would be one of the major objectives of the two-year Disaster Risk Reduction programme which would follow the Recovery Phase. It was also suggested that each partner would identify a number of volunteers and select two from them to build their capacity as Trainers for forming a Task Force for Disaster Preparedness. “Keeping DRR as the core of our exit strategy for Kerala and Karnataka, Caritas India aims to create Village Disaster Management Committees in the 392 villages of intervention as our exit strategy. These Village Disaster Management Committees will be given multiple awareness sessions on Disaster Risk Reduction, Safety training, etc.”⁹⁹

20. Use disasters as an opportunity for skill upgradation and livelihoods diversification.

Recurring disasters such as floods repeatedly erode livelihoods and adversely affect coping capacities of communities. A large proportion of Kerala's population is dependent on agriculture, tourism and traditional industries, including fishing and animal husbandry. Box 15 focuses on some key requirements of sustainable livelihoods and the importance of skills upgrading and livelihoods diversification in the context of floods recovery in Kerala.

Box 15. Employment and Livelihoods¹⁰⁰

The idea of ‘build back better’ needs to be rooted in environmental sustainability, cost effective technologies, green job creation, skill development, climate resilient livelihoods via decentralised planning, and social-cum-gender inclusion. Kerala should create ‘green jobs’ (with low carbon footprint than at present) based on the principles of environmental sustainability and cost effectiveness. Skills development is a critical component in the recovery period and beyond. Kerala’s ecological endowments along with its habitat pattern provide a solid foundation for much of its economic activities—agriculture, livestock, fisheries, agro-processing industries, sourcing construction materials, water transport, and its much-acclaimed tourism. In the short and medium term, the government can consider creating emergency employment through cash-for-work and other quick employment projects, developing special compensation packages for Kudumbashree members, and introducing appropriate insurance packages for climate resilient agriculture. The focus over the medium term will be on the restoration and regeneration of natural capital, promotion of alternative technologies in building construction, and promotion of climate resilient agriculture.

Restoration of livelihoods is one of the most important aspects of any recovery. However, diversification of livelihoods for resilience building is often missed out. For victims, restoration as well as diversification of income sources are both important. Kudumbashree has used floods recovery as an opportunity to introduce new skills for income generation.

As part of post flood activity, Kudumbashree initiated an innovative programme to augment the skills of flood affected people to suit the job market available in the flood hit areas. ARISE (Acquiring Resilience and Identity through Sustainable Employment) is targeted to provide skills training to 50,000 candidates in 10 selected areas. It includes housekeeping, plumbing, electronic repair, electrical works, day care, sales, data entry and laundry and ironing. A total of 47,105 people have registered for this project out of which 9,116 have completed training in their respective courses (as on 31.05.2019).¹⁰¹ Box 16 illustrates an example of a livelihood recovery strategy adopted by an international agency in Kerala.

⁹⁹ Caritas India. 2019. Athijeevan (meaning more life): A Story of Endurance: Building Back Better amidst flood and fury.

<https://www.caritasindia.org/wp-content/uploads/2019/05/Athijeevan.pdf>

¹⁰⁰ Kerala Post Disaster Needs Assessment – Floods and Landslides (August 2018),

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India.pdf.

¹⁰¹ Rebuild Kerala. ND. Livelihood Restoration. <http://www.rebuild.kerala.gov.in/en/livelihood>

Box 16. Livelihoods recovery process/strategies adopted by Caritas India¹⁰²

Livelihood Support for the flood affected in Kerala through Caritas India saw the greatest number of interactions and discussions with community members before finalization. Consideration for culture and geographic location were important for beneficiary appropriate livelihood choices. The livelihood support Caritas provided in Kerala under “Immediate Recovery” can be categorized as:

- On-Farm Support: was provided to small-scale farmers who mostly cultivated on leased land. Small-scale and large-scale farmers alike suffered huge losses and income. Caritas India's on-farm support targeted small-holder farmers and provided partial assistance in restoring farms through activities such as farm clearance, labour support or provision of seedlings.
- Off-Farm Support: was provided to financially challenged families whose means of earning income before the floods was mostly livestock rearing. Those families who had lost their livestock in the floods and were selected and provided assistance in the form of providing either goats, poultry, pigs, ducks, and vegetable garden support.
- Sustainable Income Generating Programmes: Lastly, certain pockets were also identified where the families had suffered losses due to floods, faced financial limitations and were also in need of livelihood assistance. For such families, who had requested for a sustainable income generating programme; the Diocesan Social Service Societies (DSSSs) in consultation with the community members have started income generating units like the Tamarind Processing Unit, Flour Making Unit, Stitching Units, Candle Making Units etc.
- In case of goats, all DSSSs have made an agreement with the beneficiaries wherein they will return one baby goat to the DSSS which will then be given to the next deserving beneficiary. This way, help can be extended to a maximum number of beneficiaries.

21. Use recovery as an opportunity for better integration of CCA and DRR for resilience.

Integration of Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) is not easy, especially at national planning levels. Difficulties in quantifying the benefits of disaster risk reduction and climate change adaptation is one of the key barriers to integration of disaster risk reduction and climate change adaptation¹⁰³. It is well recognized that the close integration of disaster risk management and climate change adaptation in development policy and practice provides benefits at all scales¹⁰⁴. However, investment in climate change adaptation and disaster risk management is often viewed as a cost rather than as a necessary investment for saving lives and livelihoods, reducing risk to critical infrastructure, and achieving sustainable development¹⁰⁵.

Recent floods in Kerala have highlighted the need for a comprehensive approach to addressing disaster and climate change risks. The Government of India, Government of Kerala and the World Bank signed a loan agreement of US\$ 250 million for the Resilient Kerala Programme to enhance the state's resilience against the impacts of natural disasters and climate change in June 2019.¹⁰⁶ This partnership is unique because it aims to mainstream disaster and climate resilience into critical

¹⁰² Caritas India. 2019. Athijeevan (meaning more life): A Story of Endurance: Building Back Better amidst flood and fury.

<https://www.caritasindia.org/wp-content/uploads/2019/05/Athijeevan.pdf>

¹⁰³ UNISDR. 2010. Disaster Risk Reduction & Climate Change Adaptation in the Pacific. Page IV. Available at

https://www.unisdr.org/files/26725_26725drrandccainthepacificandinstitu.pdf

¹⁰⁴ IPCC. 2012 Summary for Policymakers. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 1-19. Available at: https://www.ipcc.ch/pdf/special-reports/srex/SREX_FD_SPM_final.pdf

¹⁰⁵ Thomas. V., Albert. J., and Perez. R. (2013) Climate-Related Disasters in Asia and the Pacific. Manila: ADB. Available at

<https://www.adb.org/sites/default/files/publication/30323/ewp-358.pdf>

¹⁰⁶ The World Bank. 2019. World Bank to support Kerala through climate resilience program; marks first 'state-partnership' in India.

<https://www.preventionweb.net/news/view/66288>

infrastructure and services during recovery. Partnership of such nature might hold a key for better performance of CCA and DRR projects in Asia.

Annexure 1. Literature Review

No	Agency	Highlights of the work	Emerging directions for the Global South
01	UN Environment Programme (UNEP)	In January 2019, UNEP launched a three-year project, “Up-scaling community-based resilience through ecosystem-based disaster risk reduction” to scale-up ecosystem-based disaster risk reduction interventions and promote their large-scale implementation in various countries which include Ethiopia, Haiti, India, Indonesia and Uganda. In India, its focus is on developing capacity to undertake ecosystem restoration as part of the Mahatma Gandhi Rural Employment Guaranteed Scheme, a nation-wide programme, which employs 2.6 million women in Kerala. ¹⁰⁷	The nexus between environment, gender and disasters Ecosystem-based disaster risk reduction initiatives are of great relevance to the Global South, especially when climate change is all set to increasing frequency and intensity of natural hazards. UNEP initiative is emphasis the nexus between environment, gender and disasters. It uses a social protection scheme (MGREGS in case of Kerala) as a tool for up-scaling ecosystem-based disaster risk reduction.
02	Kerala Tourism Department	As the waters started receding, the Kerala tourism department commissioned a survey in 70 major destinations to find out the damage to facilities and connectivity. The Tourism Readiness Survey, conducted between September 5 and 15, 2018 found that most of the major destinations were ready to resume operations. The tourism department also lost no time in launching new campaigns to draw visitors back to the state. One such campaign is called ‘The Sun is Out’. Another, ‘This Time For Kerala’, echoes the 2010 South Africa World Cup slogan in the football-crazy state. ¹⁰⁸	The need to re-think sustainability of tourism models Like Kerala, tourism in many countries of the Global South such as Thailand, Philippines and Sri Lanka, including Small Island Developing States (SIDS) is essentially dependent on nature. Thus, preservation and protection of plants, tress, forest, birds and animal is in the interest of countries from the Global South. Rampant development and construction that harm costs, forests and ecology and diminish beauty of lands must be avoided at all costs.
03	The World Bank	Climate Resilience Program: The Government of India, Government of Kerala and the World Bank signed a loan agreement of US\$ 250 million for the Resilient Kerala Program to enhance the state's resilience against the impacts of natural disasters and climate change in June 2019. The program, which represents the first ‘state partnership’ of the World Bank in India, is the first of two Development Policy Operations	Using recovery as an opportunity for better integration of CCA and DRR at the state level A joint programme by the Government of India, Government of Kerala and the World Bank is unique because aims to mainstream disaster and climate resilience into critical infrastructure and services during recovery. It represents the first ‘state partnership’ of the World Bank in India, were it is engaging directly with state authorities. Partnership of

¹⁰⁷ <https://www.preventionweb.net/news/view/68307>

¹⁰⁸ <https://www.financialexpress.com/india-news/flood-hit-kerala-has-to-sensibly-re-think-its-tourism-model-sustainability-is-a-must/1348176/>

No	Agency	Highlights of the work	Emerging directions for the Global South
		aiming to mainstream disaster and climate resilience into critical infrastructure and services. ¹⁰⁹	such nature might hold a key for better performance of CCA and DRR projects in the Global South.
04	UNDP	For the first time the UN has prepared the Post Disaster Needs Assessment (PDNA) Report in India for Kerala recovery. The report highlights the international examples and models for building back better Kerala in 16 sectors. It suggests that Kerala could become the first green state in the country by building on the four pillars of integrated water resources management; eco-sensitive and risk informed approaches to land use and planning; inclusive and people centered approaches; and by adopting knowledge, innovation and technology. ¹¹⁰	Green recovery is a way forward The report prepared in just 20 days with support from 76 experts from 10 UN agencies (UNDP, UNICEF, UNESCO, UN Women, UNFPA, UNEP, WHO, WFP, ILO and FAO) and European Union across 13 sectors, highlights the need for green housing, infrastructure and jobs, including green technologies, particular in the context of housing and sanitation. Never before in the history of PDNAs in India so much of emphasis is put on “Green Recovery” options and solutions. What is remarkable is that the assessment not only reported losses but saw opportunities for green recovery; a clear direction for the global south.
05	UNICEF	UNICEF initiated a psychosocial counselling among women and children across the state in the aftermath of the deluge. It supported five programmes for developing the mental health of the children in flood-affected areas. These five programmes are being conducted by Childline, NGO MYRTEL, Bengaluru-based National Institute of Mental Health along with State Council of Educational Research and Training (SCERT), magician Gopinath Muthukad with his magic shows, and UNICEF’s partnership with the state police for HOPE. The initiative aimed at giving counselling to as many as 30 lakh children. ¹¹¹	The Global South can benefit from psychosocial support efforts made in Kerala recovery Psychosocial support for children and their families is often missing from relief and rehabilitation efforts. Counselling not only help children overcome fear but also understand risks that are intensified in the aftermath of an emergency such as abuse, exploitation and trafficking. Psychosocial support also helps create awareness about health and hygiene and take preparedness measures at household and community levels. Such comprehensive understanding and application of psychosocial support is hardly shared and transferred among countries of the Global South.
06 & 07	Kudumbashree	Supported by UNICEF, Kudumbashree has developed a unique exercise, referred to as Pankalithavum and Punarnirmanavum (JPP), which is in line with the global approach of Accountability to Affected Population (AAP). Setting an	Innovative model for ensuring accountability to affected populations AAP surveys have been conducted in over 60 countries after the disaster in the past, mostly by civil society organisations. JPP programme of Kudumbashree is unique, as this is

¹⁰⁹ <https://www.preventionweb.net/news/view/66288>

¹¹⁰ <https://in.one.un.org/un-press-release/un-presents-rebuilding-strategy-to-kerala-chief-minister/>

¹¹¹ <https://www.newindianexpress.com/states/kerala/2018/sep/24/kerala-floods-one-month-after-unicefs-healing-touch-for-the-flood-hit-1876283.html>

No	Agency	Highlights of the work	Emerging directions for the Global South
		<p>innovative Kerala model for ensuring transparency and people's participation in disaster response and recovery, Kudumbashree women collect data using a mobile application. Using mobile App, the second round of the survey is being conducted by Kudumbashree women in selected gram panchayats and municipalities, out of 489 villages in the seven worst flood-affected districts - Alappuzha, Kottayam, Pathanamthitta, Idukki, Ernakulam, Thrissur and Wayanad in the state.¹¹²</p> <p>As part of post flood activity, Kudumbashree initiated an innovative programme to augment the skill of flood affected people to suit the job market available in the flood hit areas. ARISE (Acquiring Resilience and Identity through Sustainable Employment) aim to provide skill training to 50,000 candidates in 10 selected areas. It includes housekeeping, plumbing, electronic repair, electrical works, day care, sales, data entry and laundry & ironing. A total of 47,105 people have registered for this project out of which 9116 people have completed training in their respective courses (as on 31.05.2019).¹¹⁴</p>	<p>the first time in the world such an exercise is conducted by a government agency, as in Kerala, says Job Zachariah, United Nations Coordinator for Kerala. "Besides the scale of Kerala exercise is large covering people in 489 local governments. Kerala sets a model on transparency and people's participation in disaster response, which other states and countries could emulate", he added.¹¹³</p> <p>Use disasters as an opportunity to strengthen existing and introduce new skills for livelihoods diversification</p> <p>Restoration of livelihoods is one of the most important aspects of any recovery. However, diversification of livelihoods for resilience building is often missed out. For victims, restoration as well as diversification of income source, both are important. Kudumbashree has used floods recovery as an opportunity to introduce new skills for income generation.</p>
08	Caritas India	<p>Caritas India on August 2019 launched a programme called "Navajeevan", which is intended to develop 320 disaster resilient communities by developing village disaster management committees.¹¹⁵ In Kerala, Caritas India is supporting 12,199 families with Wash, Shelter, and Livelihood in the recovery phase across 322 villages under 13 districts with the help of 31 partners. 940 families will be supported with shelter repair and 2919 families with water source repair, water testing, open well</p>	<p>Recovery should lead to more prepared communities</p> <p>As a way forward, all the partners were encouraged to form Village Disaster Management Committee (VDMC) and a Village Disaster Management Plan (VDMP) in all ATHIJEEVAN project 317 villages This would be one of the major objectives of the two-year Disaster Risk Reduction programme which would follow the Recovery Phase. It was also suggested that each partner would identify a bunch of volunteers and select two from them to build</p>

¹¹² <https://english.mathrubhumi.com/features/specials/kudumbashree-sets-innovative-model-for-ensuring-public-participation-in-disaster-response-1.4016861>

¹¹³ <https://english.mathrubhumi.com/features/specials/kudumbashree-sets-innovative-model-for-ensuring-public-participation-in-disaster-response-1.4016861>

¹¹⁴ <http://www.rebuild.kerala.gov.in/en/livelihood>

¹¹⁵ <https://www.caritasindia.org/caritas-india-launched-navajeevan-for-kerala-flood-affected-people/>

No	Agency	Highlights of the work	Emerging directions for the Global South
		chlorination, water filtration plant and water purifiers under WASH. Livestock rearing, seed support, training, and capacity building will be provided to 8340 families to initiate tailoring, petty shops and flower making units under livelihood. ¹¹⁶	their capacity as Trainers for forming a Task Force for Disaster Preparedness.
09	Christian Aid (CA)	CA has been providing humanitarian assistance to excluded and vulnerable populations affected by floods and landslides in Kerala. EU supported CA's humanitarian response programme to support 25,000 households with a targeted combination of livelihood assistance, water, sanitation and hygiene as well as essential non-food items. In the first phase of this project, 1,538 beneficiaries have received kits, comprising of essential items such as kitchen utensils, soap, antiseptic liquid, bucket, mosquito net, etc. 1,240 beneficiaries, especially single women and people with disabilities, together with the marginalised and vulnerable, who have not received any livelihood support from any of the agencies, received help to address their immediate needs. ¹¹⁷	Relief, rescue and recovery can be discriminatory; efforts must be made to provide just and inclusive humanitarian support A findings of the study (March 8, 2019), carried out with the support of Christian Aid, UK and Oxfam India conducted by the NGO, Rights found discrimination (against scheduled casts/scheduled tribe and Dalits) in Kerala flood relief. It revealed discrimination in relief and rescue efforts; easily accessible areas belonging to dominant casts were prioritized. ¹¹⁸ Thus, efforts of agencies such as CA that address discrimination of all kinds should be replicated in disaster recovery practices across the Global South.
10	World vision	World Vision India is one of the country's largest child-focused humanitarian organisations. Over 26,000 families in Malapuram, Kottayam, Pathanamthitta, Palakkad, Wayanad, Idukki and Alappuzha districts were provided emergency relief materials, that included dry ration, non-food household supplies, hygiene packs and more than 300,000 water purification sachets. ¹¹⁹	A long-term engagement is needed to transform lives of children and communities World vision's Area Development Programmes (ADPs) which involve a long-term engagement in a geographical area (usually contiguous) is an effective model to address root causes of vulnerability and resilience building. The model allows WVI to provide life-saving support in times of disaster as well as long-term rehabilitation post disaster.
11	Director of Employment Guarantee Mission in Kerala (Divya Iyer)	In view of the likelihood of increased demand for employment on public works due to the floods, provision for additional employment over and above 100 days per households under MGNREGA was made by the	Consider existing social protection schemes as a medium to reach out to disaster victims Kerala generated more than 5 crore person days in the financial year 2018-2019, a significant jump from its target. While the central

¹¹⁶ <https://www.caritasindia.org/athijeevan-fighting-back-to-attain-stability-after-kerala-flood/>

¹¹⁷ <https://www.christianaid.org.uk/about-us/programmes/humanitarian-assistance-communities-affected-kerala-floods>

¹¹⁸ <https://timesofindia.indiatimes.com/city/thiruvananthapuram/study-finds-discrimination-in-kerala-flood-relief/articleshow/68317843.cms>

¹¹⁹ https://www.worldvision.in/cmsadmin/uploads/Relief_Response_Update6.pdf

No	Agency	Highlights of the work	Emerging directions for the Global South
		<p>Central Government. A notification was issued to extend benefit of additional 50 days of employment per household under MGNREGA in 761 villages of 7 districts of Kerala.¹²⁰</p>	<p>government had sanctioned 550 lakh person days at the beginning of the financial year for Kerala, until July 2018, Kerala had not crossed 250 lakh person days. As on February 14, 2019, 16.14 lakh individuals benefited from the scheme. Out of this, after August 16, 2018, 11.09 lakh individuals were provided employment, of which 5.30 lakh individuals were newly employed after the flood. The beneficiaries under the scheme helped restore farmlands, canals, streams, wells and rivers, in addition to common public assets such as school playgrounds, Anganwadis, mangroves and streetlights, all of which were rendered useless after the floods.¹²¹</p>
12	SDMA	<p>The State Disaster Management Authority has formulated and implemented a new scheme 'Ujjeevana' for reconstructing the life of flood affected people through bank loans. This loan scheme is instrumented through concerned departments to people coming under various sectors such as Micro, Small and Medium Enterprises, commercial establishments, shops, Animal Husbandry, poultry, Kisan Credit Card holders and beekeepers. Persons from 1260 flood affected villages recognized by the Government are eligible for the loan. The claim will be settled from the CMDRF for the margin money for business upto 2 lakh or 25 percent whichever is lower.¹²²</p>	<p>Availability of credit play an important role in recovery of small and medium scale enterprises Micro, Small and Medium Enterprises (MSMEs) employ hundreds of workers and play an important role in local market recovery. Availability of credit in the after math of a calamity is considered crucial for business continuity. Success of schemes such as 'Ujjeevana' can be evaluated and replicated in other parts of Asia with necessary modifications to suit local conditions.</p>
13	Local District Administration	<p>I am For Alleppey', a social media campaign on Facebook launched by the district administration (led by sub-collector Krishna Teja) to help rebuild Alappuzha after the Kerala floods has been quite successful in mobilising support for victims. The initiative seeks to rebuild damaged hospitals, schools, anganwadies and other public institutions, including restoration of livelihoods and</p>	<p>Crowd funding-based social media initiative can be a successful tool to mobilize support for recovery Social media these days possess endless power; power than can change lives. Social media could be effectively used to communicate with masses and add value to public-private efforts. For example, when the page was launched — on 14 September — within six hours, a</p>

¹²⁰ https://nrega.nic.in/netnrega/writereaddata/Circulars/2379Upload_Kerala_flood_letter_7Feb19.pdf

¹²¹ <https://www.thenewsminute.com/article/how-nrega-helped-rebuilding-kerala-well-provided-livelihood-people-97178>

¹²² <http://www.rebuild.kerala.gov.in/en/livelihood>

No	Agency	Highlights of the work	Emerging directions for the Global South
		damaged houses for the most vulnerable and poor. The campaign team is close to building nearly 500 homes and provided for infrastructure for schools and hospitals, largely in the Kuttanad area. Businessmen and celebrities have come forward to help and donate, giving people cattle and ensuring safe potable water. ¹²³	woman from Kerala, who was living in Andhra Pradesh, agreed to adopt a primary health centre in Kuttanad. Countries from the Global South need to use social media much more to seek public participation as well as creating awareness about gaps and achievements in recovery.
14	United Nations Educational, Scientific and Cultural Organisation (UNESCO)	The United Nations Educational, Scientific and Cultural Organisation (UNESCO) jointly with the Kerala State Disaster Management Authority (KSDMA) planned to conduct capacity building classes for community radios in the state in July 2019. The project itself was a recognition to the important role that these community radios played during the 2018 floods. The rationale behind the initiative is that with proper training and guidance these stations can perform even better. KSDMA also demanded an emergency frequency for Kerala to air information strictly related to emergencies and natural disasters. ¹²⁴	Community radios continue to play an important role during emergencies The role of community radios in Kerala during the 2018 August floods was widely appreciated. Considering its value, a dedicated emergency frequency for Kerala is demanded from the Union information and Broadcasting ministry by the KSDMA. Direction for the Global South is to establish such dedicated frequency that can be tuned in during emergencies and build capacity of community radio stations.
15	WFP	The pilot project for fortification of take-home rations under the Integrated Child Development Scheme (ICDS) ¹²⁵ in Wayanad District of Kerala was completed and successfully handed over to the Department of Women and Child Development, Government of Kerala, for scaleup across the State. Cascading training sessions for scaleup have been conducted, covering 720 Kudumbashree members, with technical support from WFP. ¹²⁶	Take-home rations: An answer to combat malnutrition during emergencies in the Global South? Disaster put more women, children and weaker sections of the society at the risk of malnourishment. Take Home Rations (THR) in the form of pre-mixes/ready-to-eat food, including micronutrient fortified food and/or energy dense food for severely underweight children can be effective in combating malnutrition in the after-math of an emergency.
16	FAO	The agriculture and related activities in Kuttanad, which is a below sea level area, are expected to be severely affected by climate change. ¹²⁷ Kuttanad delta is the only system in India that has been	Asia need to protect its fragile and unique Wetland Agriculture Systems for conservation of biodiversity and ecosystem services from external pressures

¹²³ <https://theprint.in/statedraft/how-an-ias-officers-facebook-campaign-is-rebuilding-keralas-alleppey/169708/>

¹²⁴ <https://www.deccanchronicle.com/nation/current-affairs/300719/ksdma-focus-on-community-radio.html>

¹²⁵ Note: In Integrated Child Development Services (ICDS), state governments provide a comprehensive package of services to pregnant women and new mothers, as well as to children under the age of six.

¹²⁶ <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000104500.pdf>

¹²⁷

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/PDNA/PDNA_Kerala_India_Executive_Summary.pdf

No	Agency	Highlights of the work	Emerging directions for the Global South
		<p>practicing rice cultivation below sea level since the past 2 centuries. FAO has been supporting the Kuttanad Below Sea-level Farming System; farmers of Kuttanad have developed and mastered the spectacular technique of below sea level cultivation over 150 year ago.¹²⁸</p>	<p>The system of below sea-level farming is an approach to cope with the imminent climate impacts in coastal areas and evolve efficient methods to deal with soil and pest-related issues in agriculture.¹²⁹ This system also allows fisheries systems, livestock and home garden to be grown.</p>
17	The Left Democratic Front (LDF) government of Kerala	<p>Kerala Government has passed (November 2019) a new bill to constitute a farmers' welfare board in the state-first of its kind in the country. As per the Act, all the farmers with a minimum of five cents of land to a maximum of 15 acres of own land or leased land will be entitled for pension after they cross the age of 60 years. Plantation farmers—rubber, coffee, tea, cardamom—who have seven and half acres of land will also be entitled for the benefits of the scheme. Other than the pension, benefits include aid for those who are suffering from chronic illnesses; aid for the members' or their children's education and marriage; and compensation for the member and their family if met with accident, wildlife attack, poisoning or death.¹³⁰</p>	<p>Pension for the poor farmers can reduce burden of recovery Farming is considered risky, especially in areas prone to multiple natural hazards. Introduction of pension scheme for farmers is not a common measure. Government of Kerala must be congratulated for taking the initiative. Countries from the Global South, including the World Bank and ADB must monitor its execution in Kerala and draw lessons for strengthening such arrangements across Asia.</p>
18	UN-Habitat	<p>UN-Habitat conducted training programmes for Masons in the severely affected districts of Kerala State. In addition to men, women masons from Kudumbashree (women's cooperative formed by Government of Kerala). These trainings aim at providing knowledge, techniques and various disaster resilient shelter construction and retrofitting practices with the objective of "Build Back Better and Safer". The training is provided by trained Engineers from IIT Roorkee and other renowned engineering universities of the country.¹³¹</p>	<p>Building skills and capacities of local masons for construction is important for resilient infrastructure Local masons play an important role in reconstruction of houses and community infrastructures. Thus, it is important that their capacities are built. Investment in trainings to create a pool of well-trained masons is worth for building back better.</p>

¹²⁸ <http://www.fao.org/family-farming/detail/en/c/283069/>

¹²⁹ <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/kuttanad-below-sea-level-farming-system/detailed-information/en/>

¹³⁰ <https://www.newsclick.in/Kerala-Govt-Welfare-Board-Pension-Financial-Support-Farmers>

¹³¹ http://www.fukuoka.unhabitat.org/info/news/pdf/IND_Press_Release_Masons_Training_Kerala_Idukki_0319.pdf

No	Agency	Highlights of the work	Emerging directions for the Global South
19.	ILO	ILO in coordination with Department of Labour & Skills in the months of November-December, 2018 initiated a Training Needs Assessment (TNA) - stage 1 - for Skill Development and Entrepreneurship that is aimed at creating sustainable and Green Jobs. The construction sector has been taken as a pilot sector for the study owing to its contribution to Employment and its importance in the post disaster rebuilding stage. ¹³²	<p>Disaster recovery is an opportunity for creating Green Jobs.</p> <p>Post-disaster reconstruction offers an opportunity to create green jobs, especially in the construction sector. ILO's Training Needs Assessment (TNA) method can be used to plan skill development programmes across Asia that support green jobs.</p>
20.	KSDMA/SPHERE in India	Following the August 2018 floods, the Kerala State District Disaster Management Authority (KSDMA) felt the need to upgrade the four-year-old District Disaster Management Plan (DDMP) of the Ernakulam district for improved coordination and disaster preparedness. "The department which prepared the DDMP in 2015 did not have an action plan to deal with the flood and waterlogging issues. Even though it is mandated by the 2005 Disaster Management Act, it did not upgrade it every year." ¹³³ The plan is being prepared in association with Sphere India, an NGO. Since August 2018 floods, Sphere India has helped many other districts of Kerala update, revise and finalise their existing DDMPs.	<p>Updating disaster management plans should be an annual and ongoing exercise.</p> <p>There is no point in having outdated plans for disaster management. Plans need to be revisited and revised every year to take into account changing hazard and risk scenario.</p>

¹³² ILO. 2019. Rebuilding lives post disaster and strengthening employment. https://www.ilo.org/newdelhi/info/public/sp/WCMS_672791/lang--en/index.htm

¹³³ The Indian Express. 2019. Disaster plan to be dusted off. <https://www.newindianexpress.com/cities/kochi/2019/nov/05/disaster-plan-to-be-dusted-off-2057103.html>