



REPORT NATIONAL WORKSHOP ON POST DISASTER NEEDS ASSESSMENT (PDNA)



23rd September, 2019
India Habitat Centre

nidm

Resilient India - Disaster free India

NATIONAL INSTITUTE OF DISASTER MANAGEMENT
(Ministry of Home Affairs, Govt. of India)

National Institute of Disaster Management
(Ministry of Home Affairs, Govt. of India)

National Workshop
on
Post Disaster Needs Assessment (PDNA)

at

**Silver Oak Hall, India Habitat Centre,
Lodhi Road, Delhi**

23rd September, 2019

Context

Post Disaster Needs Assessment, *defines the needs to ensure prompt and efficient recovery of pre-disaster conditions and a reconstruction with disaster-resilient features.* The PDNA enables the estimation of post-disaster needs, *on the basis of the quantitative assessment of disaster effects and impacts in all affected sectors* of social and economic activity, as well as at different levels of analysis. A PDNA is *a unified, scientific and comprehensive analysis* of disaster effects and impacts for the estimation of long term recovery and reconstruction needs. PDNA is a tool to determine development investment in the different sectors against its exposure of Risks. PDNA process follows the recovery cycle as given below in Fig 1.

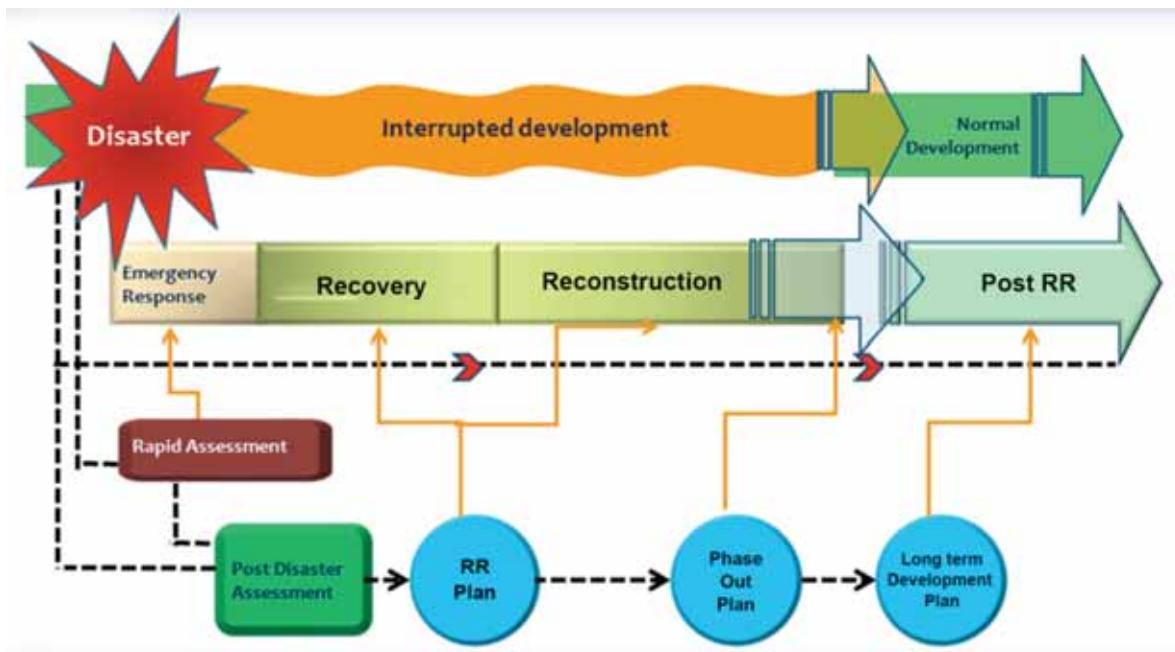


Fig 1. Stages of Recovery

The Post Disaster Needs Assessment (PDNA) tool developed under the study, has been adapted for India, on the basis of best current international practices and customized to local conditions, which will enable comprehensive and scientific assessment of recovery and reconstruction needs, on the basis of a thorough analysis of disaster effects and impacts. To undertake this new methodology, a core team of sector specialists from state and national levels must be trained.

In reference to this, National Institute of Disaster Management (NIDM) conducted a one-day workshop on Post Disaster Needs Assessment (PDNA) on 23rd September 2019 at India Habitat Centre, Delhi. About 92 participants from various ministries, state disaster management authorities, UN agencies, World Bank, and Private sector houses attended the workshop. Prof. Santosh Kumar initiated the welcome address of the dignitaries Shri Nityanand Rai, Hon'ble Minister of State for Home Affairs, Maj. Gen. Manoj Kumar Bindal, Executive Director, NIDM and Mr. G.V.V. Sarma, Member Secretary NDMA. The programme was inaugurated by the Hon'ble Minister of State for Home Affairs, Shri Nityanand Rai, followed by the release of PDNA Manual, Handbook & Standard Operating Procedures (SOP).



**(Left to Right) Prof. Santosh Kumar, Maj. Gen. Manoj Kumar Bindal,
Shri Nityanand Rai, Mr. G.V.V. Sarma**

The workshop was carried forward by getting insights on the topics from Maj. Gen. Manoj Kumar Bindal (ED, NIDM), Shri Nityanand Rai (Minister of State for Home Affairs, Government of India) and Mr. G.V.V. Sarma (Member Secretary, NDMA).



Major General Manoj Kumar Bindal, Executive Director, NIDM while welcoming the minister and the delegates, expressed his heartfelt gratitude to the response that NIDM received from nodal ministries, states and institutions. He enlightened the audience about Post Disaster Needs Assessment and its importance in the current scenario. He also highlighted the importance of its integration in other sectors and taking it

forward. ED, NIDM, further urged the state governments to come forward proactively for taking the PDNA into the process of institutionalization for making post disaster damage assessment as an integral part. He congratulated the team who coordinated the whole study.

Shri Nityanand Rai, Hon'ble Minister of State for Home Affairs,

highlighted the disasters happening across the country and its impact on the life and infrastructure. He gave his insights on the road map to PDNA and stressed upon the scientific and explorative ways of conducting Post Disaster Needs Assessment. He further highlighted the importance of regional development and women participation and their leadership in the assessment process. He also discussed the Prime Minister's 10-points agenda and focused largely on the principle of inclusion.



He complimented IMD for giving accurate warning to the people and Disaster managers who are engaged in the management of disasters which helped in reducing the mortality and also complemented NIDM for the capacity building initiatives undertaken in this regard. He said, 'now the challenge is to reduce the economic impact of disasters'. In this context, he further iterated the Hon'ble Union Home Minister's Amit Shah's address given on NDRF raising day for ensuring the execution of Prime Ministers 10 points agenda on DRR. The wisdom of local communities, specially women must be incorporated in all the initiatives taken in this direction.



Shri G.V.V. Sarma, Member Secretary, NDMA, focused on capacity building and adopting a scientific approach. He also spoke about the challenges of conducting PDNA with the risks of financing mechanisms and what role these financial institutions play for being the focal point of discussion.

Objective:

The focus of this workshop was to disseminate the outcome documents of the study to all the stakeholders so that the same may be utilized as a reference document while preparing the impact assessment after the disasters. The workshop also discussed the issues and challenges faced by states in adopting this scientific tool while estimation of damage & loss along with the capacity gap for undertaking such a detailed exercise.

Technical Session 1



Prof. Santosh Kumar and Mr. Anup Karanth

Key Points

- The session gave an introduction on the Post Disaster Needs Assessment and its vital role in the long-term recovery.

- It focused on the challenges in building the resilient infrastructure.
- The representative from the World Bank discussed about the project in building the resilient infrastructure and the process of conducting PDNA.
- The commitment of India for SDGs, COP21 and Sendai Framework.

Speakers: The first technical session was held by Prof. Santosh Kumar, NIDM and Mr. Anup Karanth, Disaster Risk specialist, The World Bank.

Prof. Santosh Kumar, NIDM gave a presentation on Disasters & Development and Existing PDNA mechanism and new tools of PDNA and its value addition to the existed mechanism. He highlighted the fact that the customized PDNA is a well believed and quantitative assessment where the process is scientific. He emphasized on the importance and the role of PDNA in the long-term recovery and gave insights on how to categorize their importance. According to him, PDNA is a value addition in building resilient recovery and the final output of the work acts as a guiding tool for investment planning for states.



Mr. Anup Karanth, Senior Disaster Management Specialist, The World Bank pointed out the long-term recovery framework in both urban and rural context. According to him, PDNA helps in setting priority funds and planning the activities accordingly. He said the World Bank focuses on three recovery intervention-Physical, Financial and Social. He also focused on resilient infrastructures with a prime concern

on health infrastructure as it is the focus of health response.

Technical Session 2



Speakers: This session was chaired by Dr. P.K. Jena, Spl. Relief Commissioner, Odisha and co-chaired by Dr. Anil Gupta, Associate Prof, NIDM. The speakers were Mr. Ramachandrudu, Additional Secretary from Bihar and Mr. Joe George from Kerela.

Key Points

- The session focused on the experiences of three states in conducting PDNA.
- The process of Damage, Loss and Needs Assessment (DLNA) followed by Odisha.
- Kerala had conducted three assessments post Kerala floods- Joint Needs Assessment, Post Disaster Needs Assessment and Memorandum by the Kerala State Disaster Management Authority.
- Building of infrastructure had been put forward in the session for building a resilient India.



Mr. Ramachandrudu, Additional Secretary, DM Division, gave his presentation on Bihar. The recent Bihar Flood, has caused severe damage to the state. The damage assessment of these floods was conducted in close coordination with various departments of the states. The exercise was undertaken soon after (10-12 days) the event. However, this report was not sufficient for taking decisions as it was falling short at many fronts. The delayed

assessment lead to the unrest amongst the affected communities.

Shri Pradeep Kumar Jena, Managing Director, OSDMA presented on the DLNA report of Cyclone Fani. This was compiled and submitted by various departments to the government. The process of Damage, Loss and Needs Assessment (DLNA) are as follows: the three days training, preparatory and desk review and at the end, validating the data analysis and consultation by field visits. The assessment report had been done in short span of time with support from central and UN agencies.



Mr. Joe George, presented for the state of Kerala. In 2018 floods and landslides, 450 lives were lost as in 2019, 125 lives were lost. Between June 1 and August 18, 2018, Kerala had experienced the worst ever floods in its history since 1924. The three assessments were done post Kerala floods and a Joint Needs Assessment, Post Disaster Needs Assessment and Memorandum by the Kerala State Disaster Management Authority. It was

first in the country which was used as the detailed process to conduct the needs assessment post flood which covered 15 sectors. Each sector had suffered different kinds of damages that has been covered by the World Bank.

Technical Session 3



(Left to Right) Dr. Parvana Murthy, WHO, Dr. Surya Prakash, NIDM, Mr. Pradeep Kumar, NCRMP, Dr. Krishna Vatsa, UNDP, Ms. Ranjini Mukherjee, UNDP

Speakers: Session on experiences shared by international agencies. It was chaired by Shri Pradeep Kumar, NCRMP, co-chair Dr. Surya Prakash, Associate Prof. NIDM, Dr. Krishna Vatsa, UNDP and Ms. Ranjini Mukherjee, UNDP.

Key Points

- Experience sharing of International agencies.
- Evolution and methodology of PDNA.
- Insights on Health sector.
- Fiscal issues, priority strategies



Dr. Krishna Vatsa (UNDP) gave his insights on the evolution of PDNA and how this integrated methodology was build up on DALA and innovation, Inclusive approach, its importance in various sectors and its acceptance by the government in the course of time. For any good long – term recovery programme, it is essential to have PDNA done first. This gives not only insight of direct and

indirect damages but also gives detailed sector-wise losses – productive sector, environment sector etc. This helps in prioritizing recovery program for undertaking full recovery, partial recovery etc depending upon the resources. It also helps in addressing issues of funding gaps as a measure of future development planning. So far, more than 65 PDNA's have been conducted in the last 5-6 years. He highlighted that PDNA is the nucleus of the recovery programme and is the need of the hour.

The second speaker in this session was **Dr. Ranjini Mukherjee**, a Disaster Risk Reduction Specialist from United Nations. She enlightened us with the process, methodology, the role of state government, UN, World Bank, ADB in the assessment process, key steps taken, limitations, lessons learnt and the key learnings. She stressed the importance of coordination amongst departments. Use of technology, quality assurance and validation with a more analytical approach are needed for a good PDNA.



Dr. Pavana Murthy from WHO, focused on the health sector and how it is useful in the assessment. He emphasized the methodology into 4 areas; damage, disruption of access to goods, disruption to governance and decision-making and increased risks and vulnerability. And further elaborated, how disasters affect the health sector while linking it to infrastructural assets, service delivery, governance and risks. The PDNA template is

build upon these four components. He further spoke about governance, disaster risk reduction in the health sector. He appreciated PDNA as a good tool for prioritizing recovery.

Each technical session was concluded with an open house discussion where the delegates raised several questions and suggestions which are as follows:

Key Questions Raised by Delegates

- Inclusion of nutrition had been pointed out.
- The relevance of PDNA in slow-onset disaster like drought had been put forward.
- The vulnerability mapping of hazards like earthquake is been done by Ecological survey of India. With regard to this, the Ecological Survey had also been doing post assessment of hazards. How to connect with it.
- Application of GIS tool and multi spatial data.
- Process of PDNA and how technology can help.
- How can state and central government set geo graphical parameters for housing sector.
- Funding for the PDNA exercise and recovery projects.
- Civil society engagement.
- Risk financing framework.

Key Suggestions Raised by the Delegates

- Food and nutrition to be added into the sector.
- Ministry of Shipping wanted to be included into PDNA.
- Ministry of tribe wanted their inclusion in PDNA.
- Identification of hotspots and fixing windows for exercise, training and studies.
- Ministry of chemicals also wanted their convergence in the manufacturing sector of PDNA.
- Prevention of lightning deaths should also be included in PDNA.
- Use of technology to be emphasized.
- Adoption of innovative methods that can generate funds, e.g.: humanitarian bonds, response bonds etc.
- Assessment should begin with small-scale disasters, without waiting for the large scale disasters to occur.

- Generating a good baseline data.
- There should be realistic and nationalistic schedule of rates across the country.
- Standardising the sector by including other sectors.
- Conducting PDNA with SAARC countries in supportive of NIDM and working collaboratively with them to support the PDNA exercise.
- To plan a workshop at the state level or with neighbouring states, with all other departments involved in disasters.

Way Forward

- Hon'ble Prime Minister Narendra Modi has outlined a 10-point agenda for efforts towards disaster risk reduction. These are:-
 1. All development sectors must imbibe the principles of disaster risk management.
 2. Work towards risk coverage for all – starting from poor households to SMEs to multi-national corporations to nation states.
 3. Encourage greater involvement and leadership of women in disaster risk management.
 4. Invest in risk mapping globally.
 5. Leverage technology to enhance the efficiency of disaster risk management efforts.
 6. Develop a network of universities to work on disaster issues as they have social responsibilities too.
 7. Utilise the opportunities provided by social media and mobile technologies and recognise the potential of social media and further develop applications for all aspects of disaster risk management.
 8. Build on local capacity and initiative.
 9. Ensure that the opportunity to learn from a disaster must not be wasted.
 10. Bring about greater cohesion in international response to disasters.

Proper implementation of these agendas should be imposed.

- The process of Post Disaster Needs Assessment should be strengthened.
- Proper execution of Disaster Management plans in ministries/states.
- Capacity building of Institutions/human resources.
- Integration of DRR/CCA/SDG.
- Making “Invisible Visible” by revisiting Investment planned and Cost Benefit analysis.
- Planning for long-term recovery & reconstruction /PDNA.
- Institutionalizing PDNA as a process of Loss and Need assessment.
- Familiarize the state and central stakeholders so that PDNA tool can be utilized.
- NIDM proposes a digital platform for PDNA document, feeds and results.
- During pre-disaster stages, pre-filling of data should be done earlier and as disaster strikes, only damage and loss data should be filled.
- Technology should be given priority.
- NIDM shall conduct training workshops to train maximum number of people in Post Disaster Needs Assessment.



Some of the delegates asking questions from the audience.



Target audience

ABOUT THE PDNA TOOLS

STANDARD OPERATING PROCEDURES



The Post Disaster Needs Assessment (PDNA) methodology has been developed for India, on the basis of best current international practices and customized to local conditions, which will enable the comprehensive and scientific assessment of recovery and reconstruction needs on the basis of a thorough analysis of disaster effects and impacts. This methodology should not be seen as a replacement or substitute for the existing approach which the state governments use for the development of the Relief Memorandum. It should be noted that the methodology deals with a separate and additional area of disaster management and that is recovery and reconstruction following a disaster while building resilience to future events.

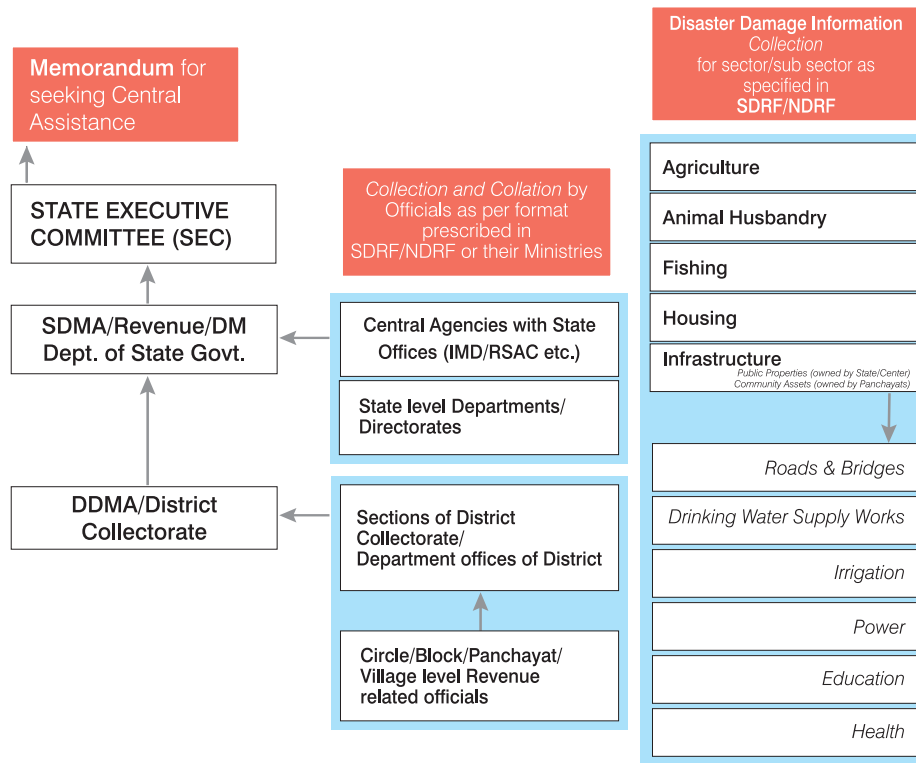
It is important to note that the sectors typically included in comprehensive PDNA are decided by the Government and are always driven by the severity of disaster impact on the sectors. While it is important that all the sectors should be assessed for comprehensive recovery and reconstruction needs, only critical sectors such as infrastructure, housing, agriculture and cross cutting sectors are considered in rapid damage and needs assessment.

The current practice of conducting post disaster assessment in India follows the provisions and norms in the manual of National Disaster Response Fund/State Disaster Response Fund. The Disaster Management/Revenue Department of each state is mandated to collect information on damage and losses after any disaster and to provide the required disaster response thereafter. There are specified formats used by the state government as provided in SDRF/NDRF Manual¹. On the basis of damage reports developed by District, Block and Village Revenue Officers as well as of supplementary “detailed assessments” prepared by sectorial state department Officials

¹ *Manual on Administration of State and National Disaster Response Funds, Ministry of Home Affairs, GoI, (revised -2013)*

(including the Departments of Agriculture, Public Works, etcetera), a “Relief Memorandum” is prepared which is sent to the central government in order to obtain additional financial resources to meet post-disaster demands for assistance. The flow chart below provides the type of information collected by different departments in the state as a part of the rapid and detailed assessments.

Existing Practice of Collecting, Collating and Reporting of Disaster Damage Data



The overall objective of this Standard Operating Procedure (SOP) is to put in place a standard mechanism for the states in undertaking a systematic and harmonized approach for conducting of post-disaster needs assessment as per the PDNA India tools developed by the Government of India. This SOP will, therefore, guide the state and its agencies in undertaking a post-disaster needs assessment (PDNA) and in developing a recovery and reconstruction plan of actions to build back better. National agencies, particularly the disaster management nodal ministries as well as development partners, interested in assisting the state in the PDNA and in post-disaster recovery and reconstruction activities shall also be guided by this SOP.

The adaptation of PDNA methodology for Indian context has been done for undertaking the damage, loss and needs assessment, which includes sector specific guidance notes detailing the steps of the assessment, templates for baseline data collection, templates for assessing damage and loss, summarizing impacts and developing priority needs for recovery and reconstruction.

Since disaster management is primarily a state responsibility and the national government and its relevant ministries/agencies assist the state in response, relief and reconstruction, any standard operating procedure would require a trigger for PDNA.

This SOP is intended to provide the various states a clear set of guidelines that will lead to the undertaking a post disaster needs assessment after a disaster event, caused by a natural hazard in India. This SOP is not intended to replace any existing rapid assessment protocols for emergency relief and response after the disasters.

It is important to note that, at present, there is no threshold level that triggers the activation of protocols under the responsibilities of the central and state levels in carrying out the damage, loss and needs assessment. As such, although the central and state governments conduct most of the post-disaster assessments jointly, the conditions that trigger the conduct of the PDNA - its timing, scope and duration among others – have not been clearly defined.

The decision of the state to undertake a post-disaster damage loss and needs assessment (PDNA) shall be based on the situation analysis after all information have been gathered by the state level agencies from the following, among others:

- a. rapid impact needs assessment for emergency and relief report;
- b. various reports from the field prepared by the state/district;
- c. from interviews with humanitarian responders; and
- d. available satellite imagery.

The above information will provide a first-hand assessment of the severity and scope of the disaster and its effect on various sectors and population, which will be the basis for final decision of the state to undertake the PDNA or not. If the situation analysis determines that the extent of the disaster effect is limited, a full-fledged PDNA may not be cost effective or sufficiently beneficial. If the situation analysis calls for the undertaking of a comprehensive PDNA, the state shall declare a state of calamity and, in consultation with the concerned Ministries (Ministry of Home, Ministry of Agriculture, etc.) take the lead in organizing and conducting a PDNA.

The SOP to conduct PDNA is an operational mechanism. The scope of this SOP is to provide an idea which acts as the key agency that would initiate PDNA. The PDNA will be a state government-led activity and the funds required in undertaking it should be mainly sourced from the State with contributions from the national Ministries, if required. The State Revenue/ Disaster Management Department will be responsible for the overall organizing and leading the conduct of the PDNA.

The assessment teams for the various sectors should be drawn from experts from the concerned state departments and national ministries to be appointed by the appropriate official concerned.

Since, international development agencies/partners value the results of the PDNA, they should be encouraged to participate and contribute to the needs of the PDNA activities. In case of disasters with wide scope and coverage, multiple assessment teams can be organized to simultaneously conduct a PDNA in the affected districts. The assessment teams of the various state departments or agencies shall be joined by their counterparts in the national ministries and district governments, in undertaking the PDNA. Representatives from foreign and international development partners may join the PDNA after the approval of the Government. A pre-arranged inter-departmental agreement for such expertise should be made.

HANDBOOK

The Handbook discusses about Evolution of Post Disaster assessments and its framework. It also discusses the development of PDNA in India, its necessity for holistic prioritization for interventions in private sector and developing recovery framework for the whole country.

The activity of post disaster needs assessments started long back but formal assessment was a result of a tripartite agreement between the heads of the European Commission (EC), the World Bank and the United Nations' Development Group (UNDG), within the Hyogo Framework for Action. In this agreement the scope of assessments for disaster effects and impact and for estimation of post-disaster recovery and reconstruction of financial requirements was agreed.



The disaster effects and impacts must be estimated at different levels of analysis that include all sectors of social and economic activity, at personal or household level, and at the macro-economic and macro-social levels. These analyses are intended to provide different views of disaster effects and impact, while keeping in mind that these values obtained are not added together, in order to avoid double or multiple accounting.

The sectorial assessment of disaster effects should cover the entire panorama of disaster-affected sectors of economic and social activity, owned by both public and private sectors, to ensure comprehensiveness of the analysis and to ensure that the post-disaster needs for recovery and reconstruction are duly brought out and eventually addressed by concerned authorities.

In many cases, the macro-economic impacts may be very limited in numbers while the sectorial and personal level impacts may be very high, for which high levels of recovery and reconstruction investments may be required.

The estimation of post-disaster needs should include the financial requirements to achieve recovery of (i) personal income, (ii) availability and access to basic services for the population, and (iii) production levels, as well as to (iv) rebuild destroyed assets using disaster-resilient standards. The estimation of post-disaster financial requirements is based on the quantitative analysis which leads to the possible preciseness in estimation of disaster effects sustained at the sector and personal levels. This will lead to proper and optimum utilization of resources.

In the case of India, many large scale and minor disasters have occurred in the relatively recent past. They include: earthquakes in Latur (1993), Chamoli (1999), Gujarat (2001), Jammu and Kashmir (2005), and Sikkim (2011); flooding caused by the Andhra and Odisha cyclones (1991 and 1997), Odisha cyclone (1999), Assam (2002), Bihar (2004 and 2008), Mumbai (2009), cyclone Aila in West Bengal (2009) and many others; droughts such as the one faced by Karnataka (2011) and in other States. The most recent disasters include the floods in Uttarakhand and cyclone Phailin (2013) and Cyclone Fani (2019) in Odisha State. While the Government and stakeholders have taken many successful measures to mitigate and prepare for disaster in India, the importance is underlined of a systematic and contextual methodology to assess post-disaster needs as a means for successful post-disaster recovery.

Two main effects of a disaster are usually measured during a post-disaster assessment: (i) the cost of the physical, durable assets that are destroyed (normally defined as damage), and (ii) the value of changes or disruptions in the production of goods and services arising from the disaster (normally defined as changes in economic flows or 'losses'). The latter may include a temporary decline or stoppage of production of goods and services, in comparison to non-disaster conditions, as well as possible temporary increase in production costs caused by the abnormal operation of production systems until full recovery and reconstruction is achieved.

During a post-disaster impact assessment, quantitative measurements of disaster effects are used to estimate disaster impact at the macro-economic, macro-social and at personal or household levels. On the basis of the quantitative assessment of disaster effects and impacts, evidence-based estimations are made of the financial requirements or needs to achieve recovery and

reconstruction of the affected areas and population. Recovery needs involve a number of activities that would enable returning economic and living conditions to non-disaster conditions, including (i) recovery of personal and household income; (ii) rehabilitation of access and supply of basic services (such as health, education, food availability, water supply and sanitation, electricity, transport and communication, etcetera); and (iii) recovery of production (in agriculture, fishery, livestock, industry, commerce, etcetera). On the other hand, reconstruction needs (often called physical recovery needs) involve the amounts of financing required to rebuild or replace all destroyed physical durable assets using disaster-resilient standards with a view to reduce disaster risk of the population and the impact of future disasters.

The current international practice requires the estimation of post-disaster recovery and reconstruction needs across all the sectors of social and economic activity, in both public and private sector domains. Once the global needs have been identified and quantified, a financing formula is devised that draws the required funding from existing public and private sources, both domestic and external. The Central and State governments are then required to spearhead the formulation of the recovery and reconstruction program, contributing the financing of recovery and reconstruction activities in the public domain, and coordinating the financing required from the private and development banking system for recovery and reconstruction of the private sector needs.

The methodology for disaster effects and impact assessment and for estimation of post-disaster recovery and reconstruction requirements must be devised in a scientific, objective and holistic manner and should obviously be evidence-based to ensure its reliability. To comply with such requirements, it is necessary that the sectoral assessment procedures must be conducive to the analysis of disaster impact at macro-economic and macro-social levels with inputs for separate analysis of disaster impact at the personal or household level. The procedures for assessment should follow a bottom up and unified approach that involves the analysis of sectoral effects and involves a standard definition of sectors of economic and social activity and their boundaries².

Any post-disaster needs assessment must be conducted on the basis of a breakdown of social and economic activities that are typical of the affected areas, states or country. The Central Statistical Organization (CSO) in the Ministry of Statistics and Programme Implementation (MSPi) of India is entrusted with the task of keeping up to date the System of National

² *Putting it in different words, the overall assessment methodology must not rely on separate and different sectorial assessment tools; rather, the sectorial procedures used at sector level must be defined on the basis of the requirements for the macro-economic and macro-social analysis to ensure comparability and validity in the necessary aggregations that are required.*

Accounts for the country. The CSO publishes an annual Statistical Yearbook that summarizes the information required as baseline for any post-disaster needs assessment. Equivalent state organizations provide the same information.

Another issue to mention is the fact that the very important subject of the environment is not included separately in the System of National Accounts of most countries, and that India is no exception. The accounts of environmental assets and services are distributed throughout the individual, formal sectors of economic activity. Therefore, post-disaster needs assessments in India should follow a scope defined by the list of sectors of social and economic activities as given by its System of National Accounts, with the addition of the environment as a cross-cutting issue.

The process for successful post-disaster needs assessments normally carries the following sequence of events:

1. Gathering of updated baseline information that describes the existence and availability of capital and physical assets in the affected area as well as the manner in which goods and services are produced and consumed by the population³. This will serve as the basis for comparison of non-disaster to post-disaster conditions.
2. Field visits to affected areas by sectorial assessment teams in order to estimate the extent of destruction of physical assets and the negative effects on the production of goods and services arising from the disaster. This will enable the estimation of the value or cost of the effects of the disaster (damage and production flow changes).
3. Aggregation of sectorial disaster effects, ensuring no double or multiple accounting, to estimate the total value of damage and production flow changes caused by the disaster.
4. Estimation of disaster impact at different levels of analysis:
 - Macro-economic impact analysis, including impact on growth of Gross Domestic Product (GDP), external sector, and fiscal sector, nationally, as well as at the level of states;
 - Personal or household impact analysis, including impact on employment, income and expenditure leading to estimation of disaster impact on human development and on the achievement of Millennium Development Goals (MDGs).

³ Since the statistical information available is already published in both printed and on-line formats by the respective organizations that produce it on a regular basis, for any post-disaster needs assessment to be undertaken it will only be necessary to obtain the most recent, up-to-date information that may still not be in published form.

5. Estimation of post-disaster financial requirements or needs for:

- Recovery of personal income, access and provision of basic services, and of normal production levels of activity;
- Reconstruction of destroyed assets including introduction of disaster risk reduction measures.

As a tool for planning and monitoring of progress in the recovery and reconstruction programs, a recovery framework to define the scope, specific targets and goals, and calendar of activities may be developed after completion of the post-disaster needs assessment.

MANUAL



The Post Disaster Needs Assessment (PDNA) has been developed for India, on the basis of best current international practices and customized to local conditions, which will enable the comprehensive and scientific assessment of recovery and reconstruction needs on the basis of a thorough analysis of disaster effects and impacts. This methodology should not be seen as a replacement or substitute for the existing approach which States use for the development

of the Relief Memorandum. It should be noted that the methodology treats recovery and reconstruction following a disaster while building resilience to future events. To undertake this new methodology, a core team of sector specialists from state and National levels must be trained.

A thorough analysis has been made of the strengths and weaknesses of the existing system for estimation of disaster effects and impacts and of recovery and reconstruction needs assessment in India. The data collected for assessments is insufficient to enable a full and scientific analysis of the consequences of the disaster on living conditions, quality of life and on the socio-economic development of those who are affected. As a result, recovery is left almost exclusively to the initiative and the capacity of each affected person and takes an unnecessarily long time, thus frustrating people's aspirations and delaying their return to normal levels of wellbeing. It is widely known that the list of social and economic activities or sectors used in the System of National Accounts in India does not coincide with the organizational structure of the central and State governments.

The PDNA is a multi-sectorial and multidisciplinary structured approach for assessing disaster damages, losses, impacts and needs that will lead to the development of a recovery and reconstruction plan. As a tool for recovery and reconstruction planning and implementation, a PDNA is normally undertaken after the emergency phase or during the time when the post-disaster emergency operations are ending and longer-term recovery is about to start.

With a standardized assessment procedure across sectors, the priorities for post-disaster recovery and reconstruction can be determined by the government in terms of the affected sectors of the economy, the geographical areas and social or population groups.

All PDNAs should be guided by the following core principles:

1. Adhere to the core principles of humanitarianism, impartiality, and neutrality.
2. Acknowledge the national ownership of PDNA and ensure that it is a demand-driven and country-led process, with the fullest possible leadership and engagement of national authorities in assessment, recovery planning and implementation, from the highest political levels to local levels, and at the level of technical expertise.
3. Support local ownership and the fullest possible engagement of local authorities and community-based organizations in the planning and execution of recovery, and building specific capacities where needed.
4. Provide coordination at all stages of the process and at all levels, ensuring collaboration and partnership between the UN, the WB and the EU, as well as with the National Government, donors, NGOs, civil society, and other stakeholders engaged in the PDNA.

5. Ensure one team, one process and one output.
6. Adhere to the principle of *Primum non nocere* – ‘first, do no harm’ – ensuring that the process does not have a detrimental effect on life-saving relief to the affected population and on the country.
7. Adopt a conflict-sensitive approach and ensure that the assessment does not exacerbate existing tensions, and that the recovery strategy takes into account potential disaster-related conflicts.
8. Support and strengthen national and local capacities to lead and manage recovery and reconstruction.
9. Ensure transparency and accountability in the PDNA process as well as in post-disaster recovery and reconstruction.
10. Integrate DRR measures in the recovery process to enhance the resilience of affected populations and countries with regard to future disasters.
11. Develop a recovery plan that addresses the gap created by the disaster, and which effectively helps people in building back better and reduce future risks without expanding recovery needs and priorities into a full-fledged development plan that goes beyond the disaster.
12. Ensure the participation of the affected population in the assessment of needs and priorities and in the recovery process, at the same time providing support to their spontaneous recovery efforts.
13. With a gender perspective, focus on the most vulnerable sections, including female-headed households, children, orphans, the landless, people with special needs, the youth and the aged.
14. Promote equality to prevent discrimination of any kind on grounds of race, color, nationality, ideology, sex, ethnicity, age, language, religion, disability, property, and birth, among others.
15. Mainstream cross-cutting issues such as gender, environment, governance, human rights, HIV/AIDS, among others.
16. Ground recovery in the principles of sustainable development.

At its core, the PDNA consists of four main elements:

1. **Pre-Disaster context and baseline information.** The first step in the PDNA process is to examine the general pre-disaster conditions – social, economic, cultural, financial and

political, which serve as a baseline to compare with post-disaster conditions in the affected area.

2. **Effects** are the immediate results brought about by the disaster, which are normally reported just after it has occurred.
3. **Impacts** are the long-term consequences brought about by the effects (damages and losses) of the disaster, which are analyzed on short, medium, and long-term basis. It combines a quantitative assessment of the macro-economic impact of the disaster with a quantitative and qualitative impact assessment on human development (social impacts). Needs are the estimated values of the activities required for post-disaster recovery and reconstruction. The PDNA and the analysis of disaster impacts provide the basis for the identification and estimation of recovery and reconstruction needs.
4. **The Recovery Strategy** defines the vision for recovery, identifies priority interventions as well as results and costs for recovery within a given time frame. The primary objective of recovery is to enable all people to improve their overall well-being by restoring their physical assets, livelihoods, socio-cultural and economic status. All activities undertaken as part of the recovery strategy must take into account the principle of building back better (BBB).

**LIST OF PARTICIPANTS FOR “NATIONAL WORKSHOP
POST DISASTER NEEDS ASSESSMENT”
ON 23rd SEPTEMBER, 2019**

S.No.	Name	Designation	Organisation	Contact Details	Email
1	Sh. Nityanand Rai	Hon’ble Minister of State	Ministry of Home Affairs	011-23320036	Mos-mha@nic.in
2	Sh. S.K. Jha	DS (Admn)	Ministry of Home Affairs	011-23092595	
3	Sh. Kumar Karnti	Addl. PS to MoS	Ministry of Home Affairs	011-23092870	
4	Sh. GVV Sarma	Member Sec NDMA	NDMA	011-26701701	secretary@ndma.gov.in
5	Sh. S.S. Jain	Director (DM)	Dept of Telecommunications	9868133320	sudeepsinghain@gov.in
6	Sh. L. Haokip	Director	DoNER	9968422955	lohaoling@nic.in
7	Dr. U.B. Dass	CMO (EMR)	MoHFW (GoI)	9868881239	ub.das71@gov.in
8	Sh. Mittar Sain	DDG	Dept of Land Resources	9810214696	mittar.sain@gov.in
9	Sh. Radhey Shyam Mawar	ADG	Dept. Postal Service	9971889100	radhayshyam.mawar@gov.in
10	Sh. Sanjay Kumar	Deputy Secretary (B&A)	Ministry of I & B	9868204186	s.kumar25@nic.in
11	Dr. Tanushree	Scientist “E”	DRDO	9740318077	tanushree@hqr.drdo.in

12	Sh. Ranjit Singh	Deputy Secretary	Ministry of External Affairs	9087181111	dsbos@mea.gov.in
13	Sh. S.P. Singh Teotia	Deputy Secretary (Haj, MAEF)	Ministry of Minority Affairs	9958187139	sps.teotia66@gov.in
14	Sh. Akanchha Singh	Research Fellow	CSRD, JNU	7667385615	akachha.singh2909@gmail.com
15	Sh. Ashok Kumar	Joint Secretary	Ministry of Food Processing Industries	9711369937	ashok.kumar@nic.in
16	Sh. A.K. Singh	Joint Secretary	Ministry of Tribal Affairs	9818266445	singh.ak2862@nic.in
17	Sh. Samir Kumar	Dy Project Director	NDMA	9435478577	samirkjha04@gmail.com
18	Sh. Ajit Kumar Sah	US (PG)	Department of Admn Reforms and Public Grievances	9911930267	ak.sah@nic.in
19	Sh. D. Garg	ED Safety	Railway Board	9870330500	eds@rl.railnet.gov.in
20	Sh. B.N. Sarkar	Scientist "G"	M/o Science & Technology, Deptt. of Scientific & Indl Research	9818880548	bns.dsir@nic.in
21	Sh. Adarsh Kumar	Joint Director	Ministry of Electronics and Information Technology	9910110309	adarsh.k@nic.in
22	Sh. Anand Kumar	DIG-Forest	Ministry of Environment Forest & Climate Change	9315539490	fpd-moefcc@gov.in
23	Sh. Shailesh Shrivastava	Director	Deptt. of Justice	9869454600	Dirjt-doj@nic.in
24	Sh. N.R. Battu	Joint Secretary & Legislative Counsel	Legislative Deptt.	9999258185	naryanrao-battu@yahoo.com

25	Sh. Lucas L. Kamsuan	Joint Secretary	Ministry of Shipping	9911783377	lucasl.kamsuan@nic.in
26	Sh. Sanjay Mittal	Deputy Secretary	Ministry of Shipping	011-23714384	s.mital@nic.in
27	Sh. H.K. Hajong	Economic Advisor	Deptt. of Pharaceutical	9968654261	rk.hajong@nic.in
28	Sh. Asheesh Kumar	Chief Manager	Ministry of Coal	9431392193	asheesh12345@gmail.com
29	Sh. Ashish Kumar Aggarwal	SO (IOC)	Ministry of Petroleum and Natural Gas	9958903841	aggarwalashish@gmail.com
30	Sh. D.K. Madan	Director	Deptt. of Chemical & Petrochemicals	9415213591	dkmadan.ofb@nic.in
31	Sh. P.S. Thakur	Director (Tech)	Deptt of Consumer Affaris	9560180632	ps.thakur@nic.in
32	Dr. Satya Prakash	Joint Secretary	Ministry of Parliamentary Affairs	011-246554565	jsmpa@nic.in
33	Sh. Ratnakar Pandey	QC Engineer	Future Hi-Tech Battires Ltd	7986547893	qms@fhtbl.com
34	Sh. Ravi Shankar	Addl. Secretary	Ministry of Pensions & DM Deptt	9431170591	vrvishankar@rocketmail.com
35	Shri Mariganka Ghatak	Director	GSI	9650267682	mrigantka.sdma@gmail.com
36	Ms. Vidyawati	Under Secretary	Legislative Deptt	9555929661	wati.vaidya@nic.in
37	Sh. C. Ramesh Kumar	Dy DG	Ministry of Labour and Employment	9011517373	ch-rameshkumar@rediffmail.com
38	Dr. Anju Rathi Rana	Joint Secretary	Ministry of Law & Justice	9871095095	anjurathi.rana@gov.in
39	Sh. Sudarshan Kumar	Section Officer	Ministry of E&IT	9990155593	sudarshankumar@gmail.com

40	Dr. Ramamohan Rao	Manager	NRSC, ISRO	9989242158	rao_krm@nic.gov.in
41	C. Balaji Singh	South Asia DM Advisor	USFS	9810088836	bschowhan60@gmail.com
42	Sh. D.R. Meena	Dy. Secretary	Health Research	9968317915	daulat.meena@gov.in
43	Sh. N.K. Joshi	Deputy Director General (DM)	Department of Telecommunications	9868131511	nirmal.joshi@nic.in
44	Sh. D.K. Garg	Chief Engineer (D&DM)	CPWD, MoHUA	9874401821	Dk.garg61@nic.in
45	Sh. K.S. Meena	Spl CEO	DDMA, Delhi	9212034395	ksmeena1964@gmail.com
46	Sh. Amit Sahai	Joint Secretary (P&C)	Deptt. of Defence	943513256	Jscord-ddp@nic.in
47	Dr. P. Blalwar	Jt. Commissioner	Deptt. of Animal Husbandary & Dairying	9436111404	jcpoul@nic.in
48	Dr. Anil Kumar Sharma	Joint Director	Deptt. of Animal Husbandary, Govt. of UP	9412637288	aks10061961@gmail.com
49	Sh. L. Jongbeno Odyo	Relief & Rehabilitation Officer	NSDMA, Nagaland	8258896057	Jonji2002@yahoo.co.in
50	Sh. Hukato Sehqi	Distt. Project Officer	NSDMA, Home Deptt., Nagaland	8787717844	hukatomixijr@gmail.com
51	Prof D. Walia	Professor	NEHU, Shilong	9436163641	wadevesh@gmauil.com
52	Sh. Barun Kumar Sahu	Principal Secretary	RC Tripura	9436120052	secy.revenue-tr@gov.in
53	Sh. Kishor Raje Nimbalkar	Secretary (DM)	RC Maharashtra	9920044125	kishore20969@gmail.com
54	Sh. Ramachandrudu	Additional Secretary	DMD, Bihar	9430524497	ramachandrudu2008@gmail.com

55	Sh. J.B. Baraiya	Deputy Collector	RC Gujarat State	9879518241	jbbaraiya999@gmail.com
56	K. Kannababu	Commissioner (DM)	DM, GO of Andhra Pradesh	9494949555	kkannababu@gmail.com
57	Sh. Subhash Umaraimkar	Deputy Secretary (R&RDept)	RC-Govt. of Maharashtra	9867611960	subhash.umaranikar@nic.in
58	Sh. Vijay Kayarkar	Asst. Resident Comm.	Maharashtra Sadan	9797683668	rcoffice@gmail.com
59	Sh. N.K. Xaxa	Secretary (DM)	Chhattisgarh Govt.	9112524003	nirmalxaxao@gmail.com
60	Ms. Mukta Ram Dekha	Project Manager DRR	ASDMA, Assam	945361475	muktaramdekha@gmail.com
61	Ms. Zoenmawi	DM Coordinator	DM & Rehabilitation Dept, Mizoram	9862048711	zoenmanui@gmail.com
62	Sh. Joe George	State Project Officer	KSDMA	9947756700	mailstojoe@gmail.com
63	Ms. Mita Dave		Adarsh Mahila Mandal	9909011663	mitadave52@gmail.com
64	Ms. Sarla H. Patel		Adarsh Mahila Mandal	9825644487	adarshmahilamandal@gmail.com
65	Sh. Ashok Kumar	Secretary-Revenue	Govt of Puducherry	9447828828	secrev.pon@nic.in
66	Sh. Parveen Bhardwaj	DM Specialist	SDMA-Himachal	8988341921	parveenbhardwaj87@gmail.com
67	Dr. Monica Priyadarshani	Deputy Collector	DC Office Andaman Nicobar Island	9476046496	dcnicobar@gmail.com
68	Sh. Shambhu Kumar		Nalanda University, Bihar	979827520	shambhukumar7777@gmail.com
69	Sh. P.K. Jena	SRC	Odisha	0674-2395398	srcodishagov@gmail.com
70	Sh. Krishana Vatsa	Recovery Advisor	UNDP	011-24618700	

71	Sh. Pavna Murthy	Health Specialist	WHO	011-23370804	murthyp@who.int
72	Sh. Vikrant	CEO	Sphere India	9818666331	vik@sphereindia.org.in
73	Sh. Bishow Parajuli	UNWFP Representative	WFP	8448081963	bishow.parajuli@wfp.org.in
74	Sh. Satoshi Sasaki	Officer	ILO	9810104527	sasaki@ilo.org
75	Sh. Pradnya Paith Ankar	Officer	WFP	9868186749	pradnya.paithankar@wfp.org
76	Sh. M.K. Rajesh		BIS	9871750356	manoj@bis.gov.in
77	Sh. Rajesh Dubey	Officer	FAO	9910900591	rajesh.dubey@fao.org
78	Sh. Sriram Haridas	Strategic Planning & Policy Officer	UNFPA	8800602009	haridass@unfpa.org.in
79	Ms. Ranjini Mukerjee	DRR Specialist	UNRCO	9717422183	ranjini.mukerjee@one.un.org
80	Sh. N.M. Prusty	Chairman	HAI	9811310841	nmprusty51@gmail.com
81	Sh. Xavier Thomas	Officer	UNICEF	8851163261	xavierthomas@gmail.com
82	Dr. Joseph George	Senior Research Associate	UNESCAP	7042322932	george15@un.org
83	Sh. Manish Mohandas	Programme Officer-Resilience	UNDP	9015511654	manishmohandas@undp.org
84	Sh. Anoop Karanth	Sr. Disaster Risk Specialist	World Bank	9818060343	a.karant@worldbank.org

85	GP Capt G Barathan	GP Captain	College of Defence Management	8903509270	ds2g.edmap@nic.in
86	Sh. A. Mukerjee	Director	Insurance Institute of India	9167010292	a.mukerjee@iii.org.in
87	Sh. S. Jalal		Shaksham Media		
88	Sh. D.P. Tiwari		News Eye		
89	Sh. Motilal Joshi		Shabdbani Samachar	9312014181	
90	Dr. Ritu Raj	Asst. Professor	NIDM	9999743100	rituraj75@gmail.com
91	Dr. Ajinder Walia	Asst. Professor	NIDM	9911545497	ajinder.nidm@nic.in
92	Ms. Karanpreet Kaur	Young Professional	NIDM	9873047335	karanpreetkaur19@yahoo.in

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