



# MYANMAR

## National Recovery Framework and Plan Floods and Landslides 2015



Government of the Republic of the Union of Myanmar

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Ministry of Planning and Finance

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Ministry of Transport and Communications

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# **FOREWORD**

**H.E. U Win Khaing  
Union Minister of Construction**

Last year, Myanmar experienced the worst floods and landslides in its recent history. Millions of lives have been impacted to various degrees. The floods and landslides have disrupted livelihoods and destroyed thousands of houses, forcing many families to live in temporary shelters or evacuation centres. But in the midst of all the destruction and chaos, affected people in flood and landslide-stricken townships and villages demonstrated admirable resilience and community spirit, playing a critical role in saving lives, maintaining dignity and restoring infrastructure and livelihoods which were disrupted.

The magnitude and intensity of the floods and landslides similarly require coordinated and coherent actions from the Government which place the needs of the most vulnerable families and individuals at the centre of the recovery process. It has worked to define the National Recovery Framework, which brings together the various streams of the Government's recovery actions and will catalyse efforts to restore and improve public service delivery, extend social protection measures and create an enabling environment for an inclusive, transparent and coordinated recovery for affected families. Our ultimate goal is to help affected communities reconnect with growth and return to a path of sustainable development that leaves no one behind.

Myanmar is amongst the countries that is most vulnerable to natural disasters and climate change. And as both natural and manmade hazards become more frequent and intense, we seek – through this plan – to strengthen the resilience of affected communities and our institutions to absorb, adapt and reduce the impact of disasters on our country and our people.

This framework is intended to be a living document which we will continue to review and revise so that the Government's recovery assistance grows and changes in line with the needs of the affected populations and their numerous contexts. The National Natural Disaster Management Committee (NNDMC) and its Recovery Coordination Committee will continue to work with relevant ministries, civil society organisations, regional allies and the international community to ensure that our recovery objectives remain relevant and contribute to building a stronger foundation for resilience and development.

# PREFACE

## Recovery Coordination Committee

The floods and landslides have been one of the most painful events that affected Myanmar in 2015. With support from regional and international partners, the Government managed to evaluate recovery and reconstruction needs for millions of people affected by the floods and landslides. Though our plan seeks the return of affected communities to their previous growth and development trajectories, the restoration of all pre-disaster conditions is not entirely desirable as many pre-existing vulnerabilities were contributing factors to the severity of the destruction caused by last years floods and landslides. This plan and framework, in addition to complementing the relief and early recovery work which has already been implemented, aims for a sustainable and resilient recovery which allows affected communities to build back better.

The present National Recovery Framework is founded on the result of the Post-Floods and Landslides Needs Assessment supported by the European Union (EU), the Japan International Cooperation Agency (JICA), the United Nations (UN) and the World Bank (WB) and Union ministries, States and Regions. It aims at defining key priorities for recovery in multiple sectors. Through this Framework, we hope to strengthen our existing mechanisms and our institutional ability to manage and reduce the impact of future disasters.

We understand the immense challenges ahead in the operationalization of this framework: Myanmar is experiencing a political transition and the Government must live up to the high expectations that our people have – especially the affected persons whose needs are still unmet. It is our sincerest hope that our national, regional and international partners continue to work alongside us to fulfil the needs of affected persons. We welcome their support and assistance and will seek to deepen existing relationships and forge new partnerships at this key juncture in Myanmar's history.

**U Kyaw Linn  
Permanent Secretary  
Ministry of Construction  
Secretary of the Recovery Coordination Committee**



*photo credit: Ministry of Construction*

## A. EXECUTIVE SUMMARY

## A1. EXECUTIVE SUMMARY

The flooding and landslides in July to September 2015 have cumulatively displaced 1,690,446 people and killed 172. Millions of people have been adversely impacted, including those who have been displaced, injured, had their livelihoods or their normal daily routine disrupted, lost assets/capital or have died. 21,508 houses have been totally damaged and 847,471 hectares of farmland has been destroyed. Whilst the full scale of the impact of the Flooding and Landslides will not be known for years, the direct economic losses, with reference to the table below, are estimated at MMK 1.93 trillion (USD 1.49 billion).

Summary of Damage and Losses in million kyats – reproduced from the Post-Floods-and-Landslides Needs Assessment (PFLNA)				
Sector/Sub-Sector	Damage	Losses	Total Disaster Effects	% of Total [desc.]
Housing	508,079.30	34,153.50	542,232.80	28.14%
Agriculture (crops)	54,252.60	335,210.10	389,462.70	20.21%
Industry	27,585.70	300,191.10	327,776.80	17.01%
Livestock & Fisheries	7,726.80	315,827.90	323,554.70	16.79%
Commerce	27,723.90	125,307.80	153,031.70	7.94%
Transport	76,175.10	8,512.60	84,687.70	4.39%
Education	48,468.90	2,302.60	50,771.50	2.63%
Disaster Risk Management	27.20	23,674.40	23,701.60	1.23%
Water and Sanitation	14,805.50	936.70	15,742.20	0.82%
Water Resource Management	13,271.10	--	14,271.10	0.74%
Health	6,647.90	1,537.30	8,185.20	0.42%
Electricity	6,282.30	623.70	6,906.00	0.36%
Communications	1,246.80	1,244.00	2,490.80	0.13%
Total	792,493.10	1,149,521.70	1,942,014.80	100.00%

In August 2015, the Government of Myanmar initiated a Post-Flood-and-Landslides Needs Assessment (PFLNA) to inform the planning of an inclusive and evidence-based recovery programme. The European Union (EU), the Japan International Cooperation Agency (JICA), the United Nations (UN) and the World Bank Group (WB) supported the PFLNA. Expert mobilized by these agencies worked with Government counterparts to determine recovery and reconstruction needs in each specific sector. The total economic value of the effects of the floods and landslides was estimated to be approximately MMK 1.94 trillion. This amount includes MMK 792,493 million in damages and MMK 1,149,522 million in losses. This is equivalent to 3.1% of Myanmar's Gross Domestic Product (GDP) in 2014/2015.

Productive sectors sustained the heaviest toll in disaster effects with MMK 1,207,296.9 million: Agriculture, livestock and fisheries incurred more of the disaster effects. Although damages are seemingly low, losses are particularly high. This is the same for industry, whose change in flows is higher than actual damages sustained by the sector. The other sector that was also severely affected was housing with MMK 542,232 million in damage and losses. Housing, Agriculture, Livestock, Fisheries and Commerce and Industry make up 95.74% of the total of damages and losses. The Government has made extensive use of the (PFLNA) as has correspondingly built its Recovery Interventions around Housing and Livelihoods.

The government activated its Emergency Operation Centre (EOC), under the National Natural Disaster Management Committee (NNDMC). With the support from the national and international partners, the EOC coordinated emergency response activities, including search and rescue activities. Military assets were also mobilised to provide life-saving interventions. The priority was to restore critical services and infrastructure in the flood-affected areas, including:

- Restoration of the railroad network to facilitate the transport of people and goods in and out of disaster-stricken areas (North and Western railroad sections);
- The then Ministry of Electric Power managed to restore critical electric supply in flood affected areas;
- Myanmar Post and Telecommunications restored mobile emergency telecommunication including for the coordination of search and rescue operations;
- Facilitating access to clean drinking water through the provision of water purifying tablets and bleach by the Department of Rural Development in Sagaing, Magway and Rakhine, provision of latrine pan and pipes, drainage and hygiene promotion initiatives by the Department of Health and the Regional Public Health Department in Sagaing and Rakhine;
- Distribution of animal vaccines and other medications to prevent animal disease outbreaks by the MLFRD;
- The Department of Health, in partnership with international partners, has managed to establish mobile clinics and restore access to primary health care in flood-affected areas. Around 236,256 people received medical treatment as of 7 September 2015.
- The re-establishment and maintenance of the main road connection between Kalay and Hakha preventing Chin State from being completely cut off;
- The Department of Social Welfare (DSW) deployed of newly trained social workers to support with psychosocial support and helping affected populations to cope with the crisis.

Seven months on, much progress has been made: in addition to the achievements above, the early recovery efforts of the Government of Myanmar has resulted in the construction and repair of 3,907 houses, 426 schools, 314 road sections, 299 bridges, 120 dikes and dykes and 550, totalling MMK 56 billion in early recovery expenditures. The implementation of short-term early recovery activities has necessarily pushed forward and have not been reliant on the preparation of long-term recovery and reconstruction packages. This has facilitated the return of displaced persons to their homes, the reopening of schools and the restoration of basic services to many communities.

However, the flood-affected areas of the country remain irrevocably altered: the effects of the flooding and landslides have stretched far beyond the immediate and visceral destruction of the physical environment and have bled into the longer-term and systemic issues that have hampered vulnerable communities in Myanmar for decades.

Headline Indicators by State and Region – data from MoSWRR 2015, MoAI 2015, IHLCA 2010						
State/Region	Poverty Incidence	People displaced by floods	Totally-Damaged houses	Flood-affected Houses	Destroyed Farmland (acres)	% of total disaster impact* [desc.]
Rakhine	0.435	109,707	14,130	128,407	217,246	35.25%
Chin	0.733	17,924	2,951	3,978	7,867	25.14%
Sagaing	0.151	473,365	1,982	87,976	121,409	11.32%
Ayeyarwaddy	0.322	498,759	1,251	109,416	209,971	10.05%
Magway	0.27	303,694	414	64,560	65,858	8.01%
Bago	0.183	177,315	281	66,839	152,847	4.90%
Yangon	0.161	63,576	-	15,459	56,486	2.16%
Shan	0.27	5,329	128	584	2,863	1.12%
Mandalay	0.266	18,977	256	4,631	27	0.98%
Kachin	0.266	7,454	69	5,229	12,791	0.78%
Kayin	0.174	7,714	1	1,225	106	0.20%
Mon	0.163	6,632	45	1,593	-	0.10%
Total		1,690,446	21,508	489,897	847,471	100.00%

\*Calculated based on damage to housing, direct economic losses and GDP per capita

The National Recovery Programme seeks to address this toxic combination of disaster damage and pre-existing vulnerabilities. In particular, the effects environmental catastrophes on livelihoods accumulate over time and likely to result in significant problems for affected communities in the medium-term. There has already been widespread adoption of negative coping mechanisms, food insecurity and increased indebtedness across the affected areas, all of which combine to erode capacity to recover and reinforce the cycle of poverty.

It is now necessary to systematically address the immediate and long-term challenges in front of us. To that end, the Government of Myanmar has planned a multi-sector integrated Recovery Programme to counteract the widespread and diverse nature of the destruction caused by the flooding and landslides as well as build the necessary institutional capacity to deliver quality interventions which serve the people of Myanmar well. The plan and framework proposed in this document calls for the commitment of MMK 1.98 trillion over 2.5 years across 14 Ministries, 1 state-owned entity and 10 State and Regions:

Recovery Budget by Sector, in million kyats			
Sector/Sub-Sector	Budget	% of Total	Involved Ministries/Agencies
Agriculture	412,288	20.84%	MALI, MADB, MoTransport
Housing	357,040	18.04%	MoC, MNREC, MoPF
Cash and short-term livelihoods	285,820	14.44%	MoSWRR, MALI
Transport and Connectivity	262,882	13.29%	MoC, MALI, MoTransport
Industry, Commerce and Finance	204,857	10.35%	MoPF, MLIP, MADB, MoSWRR
Livestock & Fisheries	103,134	5.21%	MALI
Education	96,754	4.89%	MoE
Environmental Protection	62,500	3.16%	MNREC
Disaster Management	33,881	1.71%	MoSWRR, MoC, MoPF, MoTransport
Water and Sanitation	33,644	1.70%	MALI, MoH
Health	33,135	1.67%	MoH
Protection and Accountability	13,600	0.69%	MoSWRR, MoTransport
Other	79,148	4.00%	MoSWRR,
<b>Total</b>	<b>1,978,682</b>	<b>100%</b>	

In addition, whilst the efforts and experiences in the Emergency Response Phase were extremely commendable – this was the first major test of our Emergency Operations Centre – it was revealed that the capacity of affected communities, the Government and its development partners needs to be significantly increased; especially now that we are confronted with the complexities of responsible and sustainable resettlement, hazard-sensitive land-use planning and inclusive economic recovery. The realisation of nationally-mandated Disaster Risk Reduction laws must be furthered; however, many aspects go understandingly unimplemented due to both a lack of public awareness as well as the overwhelming number of competing priorities that the country currently faces.

This is precisely why we must look beyond the immediate needs and towards durable and transformative change: communities, the Government and its development partners must move towards more effective risk management. Income-generating capacity must not only be increased, but livelihood streams also need to be diversified in order for affected families – in one of the countries most vulnerable to disasters – to adapt and absorb the innumerable shocks and stresses that they will encounter. Inherent power imbalances mean that whilst households currently assume an inordinate share of the risks, they do not reap a proportionate share of the rewards. And though it is encouraging to see high levels of ownership in the repair and reconstruction of their homes and livelihoods – if we truly seek to inclusively build resilience and facilitate self-recovery, we must shoulder risks too great for affected communities to bear, in the hope that we lessen the incline on their far-from-certain pathway out of poverty.

## A2. TIMELINE, RESOURCES AND DISASTER RECOVERY PHASES

### **Short-term Interventions**

As can be seen from the chart below, the vast majority of recovery activities under Outcome 1 are short-to-medium-term in nature: activities in Housing, WASH, Education and Health mostly involve the restoration of access to basic public services and improving living conditions. These should be completed by the end of 2016, with only monitoring and technical assistance activities carrying on during fiscal year 2017/2018. Many of these construction-focused activities are already underway. Cash-for-work is also to be prioritised as it will lay the groundwork for much of the livelihoods activities proposed under the Agriculture, Livestock and Fisheries and Industry and Commerce Sectors.

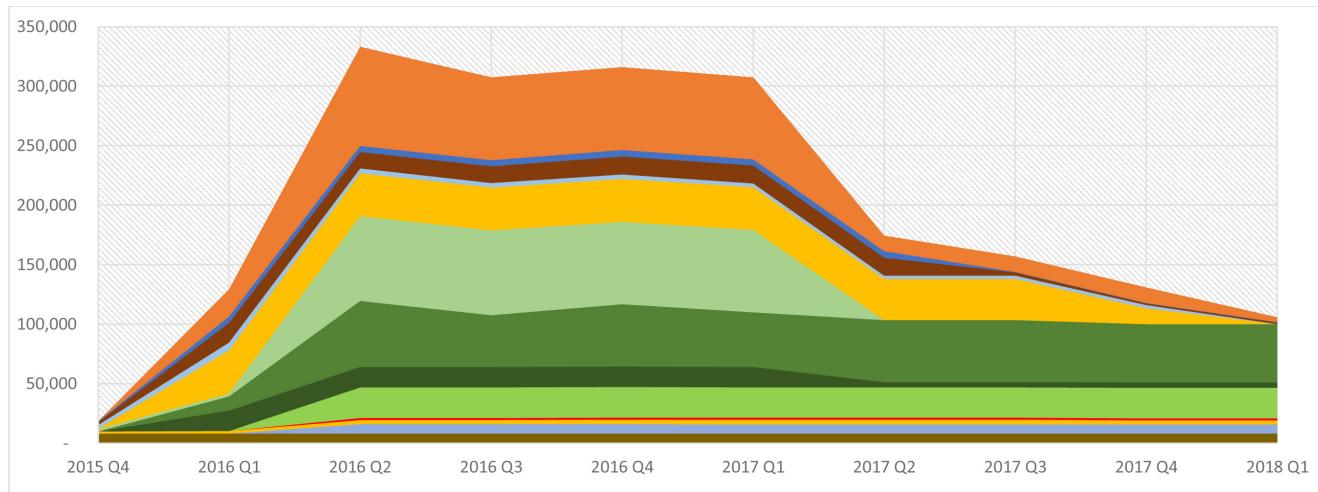
### **Medium-term Interventions**

Livelihoods activities, with the notable exception of Cash-for-Work, all extend until the end of fiscal year 2017/2018. This is in recognition of the drawn out and complex nature of economic recovery as well as the need for continuous technical support and monitoring necessary over the course of the lifespan of these activities.

### **Long-term Interventions**

Many structural and institutional interventions are long-term in nature, such as the formulation of comprehensive WASH Sector policies. However, other operational interventions such as activities under Social Protection and Accountability, Disaster Management and Environmental Protection are pre-requisites for the implementation of any activities and should be undertaken throughout the lifespan of the National Recovery Programme. A brief summary of the cash flow required and the implementation schedule of the proposed Recovery Activities has also been prepared:

## Timeline and Resources



As depicted by the table above which breaks down projected expenditures over time by Sector (in million Kyats), the National Recovery Programme has a planned duration of 2.5 years, stretching from the end of Emergency Response activities in October 2015 to March 2018. From the fourth quarter of 2015 to March 2016, 7.4% or MMK 147,396 million of early recovery activities have been planned. The majority – MMK 1,263,648 million or 63.9% – of interventions, especially those in Housing and Livelihoods are planned for between April 2016 to March 2017. Infrastructure and housing interventions sharply taper off in the final year of the National Recovery Programme, which consists of MMK 567,638 million or 28.7% of the proposed activities and is primarily focused on livelihoods and longer-term interventions. A breakdown of financing options is discussed on page 126.

Budget Breakdown by Sector and Fiscal Year, in million Kyats													
	Housing	WASH	Education	Health	Transport & ICT	Cash-for-Work	Agriculture	Livestock & Fisheries	Industry & Commerce	Accountability	Disaster Management	Environmental Protection	Other
Q4 2015 - Q1 2016	22,561	6,236	18,803	9,597	36,687	4,459	12,222	17,112	-	-	3,889	-	15,829
Q2 2016 - Q1 2017	291,319	21,127	57,514	15,009	143,560	281,360	197,676	68,450	102,679	6,800	14,996	31,500	31,659
Q2 2017 - Q1 2018	43,160	6,281	20,437	8,530	82,635	-	202,390	17,572	102,179	6,800	14,996	31,000	31,659



*photo credit: Ministry of Transport*

## B. INTRODUCTION, RECOVERY VISION AND PRINCIPLES

## B1. RECOVERY VISION

The Government of Myanmar's Recovery Vision is to promote people-centred resilient growth by building back better across all the affected states and regions. In doing this, the Government will undertake a whole-of-society approach in preparing the recovery plan. It will engage every level of government (Union, State and Region, Township and Village Tract) with the support from the private sector, civil society, the academe, communities and development partners. This vision has been codified in the development of the Recovery Objectives as well as the development of all interventions detailed in later sections.

## B2. LOGICAL FRAMEWORK AND RESILIENCE

The disaster was widespread in its damage, severely affecting multiple states and regions and sectors; it impacted the infrastructure, systems and livelihoods of affected communities throughout the country and increased their physical and socioeconomic vulnerability.

The primary effects of the floods – loss of income, loss of access to services, loss of assets and displacement – are deeply tied into the pre-existing limiting factors and barriers to inclusive growth and human development. These have already been largely identified by the World Bank in their Country Diagnostic and form an important lens through which progress in recovery should be interpreted:

- Poor transport connectivity
- Low rates of electrification
- Lack of access to agricultural extension services and poor production practices
- Lack of diversification in agricultural income sources
- Insufficient irrigation and WASH infrastructure

- Limited supply of skilled labour and poor productivity
- Weak financial sector
- Underinvestment and lack of outcome monitoring in social services, in particular, healthcare and education
- Lack of access to agricultural land and insecurity of tenure
- Weak tax compliance and narrow tax base

Due to the complex interplay between these pre-existing and multidimensional limiting factors and the destruction caused by the disaster, it was determined that a comprehensive multi-sector integrated approach was necessary to alleviate human suffering and mitigate the long-term impacts of the flooding, many of which have already started to combine with and exacerbate the complex development situations of the numerous affected areas.

The Multi-Sector Recovery Framework that forms the core structure of the National Recovery Plan is built around the need to inclusively build resilience at the household, community and institutional levels. Resilience, for the purposes of the Recovery Programme, may be broken down into both absorptive and adaptive capacities.

Absorptive capacity is concerned with how well households and communities (and countries) may withstand and endure shocks (such as the onset of natural disasters) and stresses (such as food insecurity or poverty). Examples of building absorptive capacity includes improving the strength of the built environment, building income and production stability and strengthening community structures and social safety nets.

Adaptive capacity is about how well a household or community adjusts and changes its behaviours in response to shocks and stresses. Examples of building adaptive capacity include increasing the diversity of income sources; improving access to financial services; improving educational outcomes and attainment; and improving preparedness response and mitigation mechanisms.

Building resilience and capacity underlies the goal of the National Recovery Programme and applies to all the four Outcomes of National Recovery Plan, which have been divided thematically:

**Goal: To inclusively support the self-recovery of flood- and landslide-affected communities and strengthen community and institutional resilience**

**Outcome 1: Improved living conditions and access to Basic Services**

This outcome includes activities in the Housing, WASH, Education, Health and Transportation and ICT sectors. Activities under this outcome are necessarily infrastructure-oriented and primarily seek to a) restore access to social and community services b) improve the built environment and make it safer from future disasters, including the formulation and application of the necessary build-back-better standards and guidelines.

**Outcome 2: Strengthened Livelihoods and Increased access to Capital and Work Opportunities**

Primarily concerned with the economic impacts of the disaster, this outcome includes activities in agriculture, livestock, fisheries and economic development. Activities under this outcome seek to provide short-term support to income and build long-term and sustainable income-generating opportunities for flood-affected communities, some of which are amongst the poorest and most isolated in the entire country.

**Outcome 3: Increased Social Protection and Accountability to Flood-affected Communities**

This outcome concerns accountability and social protection activities that apply to all communities and have been designed to increase the quality and quantity of communication with communities. Outputs and activities under this outcome seek to improve the provision of information and inclusivity of consultations as well as establish and enhance feedback and complaints mechanisms. Though it doesn't directly address the damages and losses caused by the disaster, seeking and including community perspectives in implementation should be regarded as aspects common to all activities. These commitments have been codified in the logical framework to ensure that these activities are adequately resourced and monitored.

**Outcome 4: Government Capacity to Decrease Vulnerability to Disaster and Climate Risks is Strengthened**

Though the entire National Recovery Plan is concerned with building resilience, this outcome sets out actions specific to building institutional capacity to not only implement the National Recovery Programme but also address the needs identified for the government to more fully meet the challenges of future disasters as well as climate change.

# Multi-sector Results Framework



The above diagram shows which outcomes are relevant to and correspond with the roles and duties of the various ministries involved in the Recovery Programme.

In recognition of the varying levels of capacity (income, assets, education, social support networks, etc.) that exist amongst the persons affected by this disaster, the National Recovery Programme will seek to identify and prioritise the needs of those who are least able to recover on their own. This is not to discount the suffering of those who are less vulnerable, but rather to ensure that all communities and people are enabled to recover from the 2015 Floods and Landslides and begin to rebuild their lives. All Recovery Implementers should be advised that the intention behind the development and application of the following targeting mechanisms is not so much redistributive as it is mitigative.

This has influenced the establishment of standardised packages for recovery assistance as the Government cannot recover all losses and damages for all people across all areas, nor should it be expected to. Recovery Interventions are designed to provide a minimum standard of assistance and are not meant to fully cover the value of lost property.

The Myanmar Information Management Unit (MIMU) has estimated that 9.7 million people live in the village tracts where flooding was recorded. The National Recovery Programme has used MIMU's estimations to focus on a slightly wider range of target areas and persons as the socioeconomic impacts of the disaster exceed the physical boundaries of the flooding.

As will be explored in more detail in the next section, 13,663,689 people are expected to benefit directly from the the National Recovery Programme. To differing degrees, these persons have been adversely impacted by the flooding and landslides – this includes people who have been displaced, injured, lost assets/capital and had their livelihoods or normal daily routines disrupted in both the short- and long-term as a result of the disaster.

However, not all 13,663,689 persons are targeted for household-level support, nor do most of them require it. Persons in affected communities will benefit from a combination of household-level and community-level recovery interventions which will be implemented in a multi-sector integrated manner:

## ***Household-level Interventions***

Activities targeted at flood- and landslide-affected households have the most limited reach of interventions under the National Recovery Programme. Identified beneficiary households will be the most vulnerable and most affected persons in the targeted areas. They are expected to benefit from a range of activities including:

- The provision of comprehensive Housing and WASH assistance
- Livelihood assistance through the restoration of existing, viable livelihoods; skills training to jumpstart alternative livelihoods; and the provision of associated technical assistance and materials
- Cash-for-Work and cash grants to temporarily support household income and mitigate the adoption of negative coping mechanisms

## ***Community-level Interventions***

The community encompasses the general population, local government, the private sector and civil society actors within targeted areas. Community-level interventions are targeted at a broader group of individuals living in severely-affected areas, many of whom might not qualify for household-level support. Targeted villages are expected to benefit from the rehabilitation of a range of community assets, facilities and infrastructural equipment, including WASH facilities, schools and health facilities. Community-level rehabilitation of livelihood assets and easing of access to credit are also planned.

The coordinated restoration and rehabilitation of community assets, facilities and infrastructure will complement the provision of more-targeted household-level support and are meant to facilitate the overall recovery of severely-affected areas. Additionally, a wider group of persons within targeted states and regions will also benefit from the repair/rehabilitation of transportation and ICT infrastructure – this may occur at the township or state-and-region level.

## ***Institutional and Structural Interventions***

Proposed in the National Recovery Plan are also a range of policy and structural improvements that will indirectly benefit large parts of the population; these include increasing national and sub-national response capacity and the formulation of relevant policies and guiding documents to facilitate the implementation of both the Recovery Programme and future disaster responses. Activities include the:

- Implementation of national environmental guidelines and laws
- Development and dissemination of build-back-better guidelines
- Implementation of the Myanmar National Building Code 2012
- Formulation of national WASH policies

It is intended that the most vulnerable be targeted for all levels of interventions: for instance, an elderly couple who are subsistence farmers from Mrauk-U in Rakhine State whose house has collapsed and crops have been washed away should benefit from household-level interventions, including livelihoods and housing, as well as more broadly-targeted infrastructure investments. To the greatest extent possible, Recovery Implementers are encouraged to conduct multiple types of interventions in areas that are especially vulnerable and greatly damaged by the disaster.

### B3. RECOVERY PRINCIPLES

The development of the National Recovery Programme is based on the Recovery Principles identified in the Post-Disaster Needs Assessment of the Flooding and Landslides (PFLNA) and all aspects of the proposed activities are intended to promote:

#### ***Fairness and Equitability***

The proposed allocations of Recovery Activities are designed to be in line with the effects of the disaster identified in the PFLNA. Areas and Sectors which are more affected have been accorded greater allocation than areas and Sectors that have been affected less. Likewise, households which are more vulnerable and/or have suffered a disproportionately from the disaster will be provided with a wider range of recovery assistance than those who have more capacity.

According to the PFLNA, the effects of the flooding on livelihoods will be regressive, with poorer households struggling more than wealthier ones. As the negative effects on livelihoods accumulate, it is those who are least able to withstand economic shocks and stresses who will be suffer the majority of the effects of the disaster. Flood-and-landslide affected poor landless households and smallholder farmers who have few assets are ill-equipped to deal with the economic shocks that will emerge in 2016, when the lack of harvest begins to take its toll on savings and food stocks.

#### ***Participation and Inclusivity***

Affected communities are placed at the centre of the National Recovery Programme and numerous parts of the plan, from targeting mechanisms to social protection and accountability interventions are designed specifically to include and make effective use of community viewpoints and priorities. Affected people are the biggest asset in any recovery programme and will drive most of the recovery themselves. However, they must be provided with clear information on the intentions and plans of the National Recovery Programme so that they may be better able to make the major decisions ahead of them as well as better direct their time and resources.

However, the National Recovery Programme does not only seek the participation of those already in positions of leadership and authority. Vulnerable people are the most likely to be greatly affected and they also have the least capacity to recover. It is the intention of the National Recovery Programme to ensure that their perspectives are included in all stages of the Recovery Process.

The distribution and devolution of decision-making power is in part a response to the fact that the National Recovery Programme is to be implemented across large, diverse parts of the country. What is true at the national level might not be the case for all States and Regions, with diversity and disparities only increasing at the village-tract and community levels.

#### ***Resilience***

The widespread and severe damage caused by the Flooding and Landslides was an indication that Union-wide resilience must be improved. The capacities of communities and institutions to absorb, endure and adapt to the shocks and stresses caused by the Flooding and Landslides was sorely tested and changes must be made if Myanmar, one of the countries most vulnerable to natural disaster and climate change, is to be able to consolidate and build on development

gains. The National Recovery Programme contains large-scale interventions to address resilience building at the household, community and institutional levels. Resilience is further codified in the goal of the Recovery Programme and every intervention within this document is designed to increase it at either the household, community and institutional levels.

### ***Coordination***

In many developing countries, recovery momentum is lost to time gaps between recovery and implementation, donor fatigue and declining resource commitments. The National Recovery Programme is no exception to this. The absence of coordination mechanisms, clear planning and defined roles and responsibilities decreases the efficiency in which Recovery Interventions are implemented. If mechanisms and commitments for stronger coordination are not put in place to direct and guide Recovery efforts, it is anticipated that donor and media attention will very quickly be diverted to other disasters.

Additionally, much like resilience, coordination is hard-coded into the overall design and logic behind the National Recovery Programme. The disaster affected numerous states and regions and caused great damage across a wide range of Sectors: to recover effectively, the response must be systematic and coordinated. To do any less would lead to an incomplete recovery from the range of physical and socioeconomic risks and vulnerabilities caused by the disaster.

### ***Effectiveness***

The National Recovery Programme is built on evidence. Its design has taken the wide range of international and internal experience in implementing recovery programmes into account, including the lessons learnt from the Response to cyclone Nargis. It builds on addresses key issues identified in the PFLNA and is intended not only as a companion piece but also as the documentation of how the identified goals and objectives may be operationalised.

To that end, the National Recovery Programme has endeavoured to make its assumptions and logic plain to the reader so that challenges and suggestions may be more easily targeted and incorporated into future versions of this document.

Additionally, the National Recovery Programme places a heavy emphasis on the need for monitoring and evaluation. It is not enough to know if interventions are being implemented: effective government also endeavours to ensure that efficiencies are maximised and that changes in the context may be incorporated into the programme design. The complexity of implementing large-scale recovery programmes also necessitates our constant attention to identify any adverse and unintended consequences of our actions.

### ***Sustainability***

It is well-recognised that Myanmar is currently in a period of widespread change and reform. Whilst it is beyond the scope of the National Recovery Programme to propose any new legislation or reforms, it has been designed with the current context in mind. Many proposed activities align with the planned and long-term increases in social and infrastructure spending.

Recovery Interventions have been designed to complement long-term development and disaster management. Many Recovery Interventions also necessarily address issues caused by the combination of the disaster's impact as well as pre-existing vulnerabilities and factors limiting inclusive growth and development. The sustainability of specific interventions is largely

dependent on their project design. Certain activities such as cash-for-work are not intended to be long-term, whereas the improvement of irrigation coverage is expected to be implemented over several years and link to broader development goals.

## B4. HOW TO USE THIS DOCUMENT

The National Recovery Plan is intended for recovery planners and implementers within the Government of Myanmar, including policymakers, leaders, managers and implementing agencies. In it, the Government has articulated and defined its strategy for the effective implementation of Post-Disaster Recovery which will lead to Sustainable Development. This document also provides priority actions and guidance on implementation and monitoring.

This document is the combination of work from the National Natural Disaster Management Committee and the Recovery Coordination Committee, as well as the:

Ministry of Agriculture, Livestock and Irrigation	Ministry of Home Affairs
Ministry of Commerce	Ministry of Labour, Immigration and Population
Ministry of Construction	Ministry of Natural Resources and Environmental Conservation
Ministry of Education	Ministry of Planning and Finance
Ministry of Electricity and Energy	Ministry of Social Welfare, Relief and Resettlement
Ministry of Health	Ministry of Transport and Communications

Interventions and strategies from ministries across all Sectors were consolidated and aligned with the overall Recovery Principles and Goals in order to develop the Multi-Sector Recovery Framework which forms the core logic of the National Recovery Programme. This was done so that:

- Principles and standards may be applied consistently across all Sectors and Areas
- Needs are prioritised across all Sectors and Areas
- Recovery results and outcomes across sectors are coordinated and reinforce each other
- A central reference point may be established from which the entire National Recovery Programme may be monitored and evaluated, enabling strategic adjustments to be made as required

With the development of a consolidated National Recovery Plan, the Government will not only be better able to address long-term vulnerability with coherent interventions but also be better positioned to drive a process that unites all development partners' efforts.

This document lays out roles, responsibilities and the organising structure of governmental implementation and coordination mechanisms. Prioritisation and programming have been inclusive, transparent and based on the analysis provided by the Post-Disaster Needs Assessment of the 2015 Flooding and Landslides. The priorities laid out in this plan are also intended to guide funding and portfolio management decisions. It is broken up into the following sections:

Narrative Description of Activities and Implementation Standards contains all common implementation standards which apply to all interventions as well as descriptions of Recovery Activities organised according to the Outputs and Outcomes to which they pertain. Standards and guidance pertinent to the implementation of specific activities (i.e. guidelines for resettlement and relocation) is also included. This major section also contains relevant information on the

scope of needs of activities within each sector, rationales for interventions and necessary contextual information. The largest part of this document, the narrative description of activities is intended to be a reference from which States and Regions may develop and populate their Detailed Implementation Plans. An activity-level summary of the Recovery Framework can be found at the end of this section.

Targetting Mechanisms and Beneficiary Selection establishes and details targeting mechanisms at the National, State and Region and Community levels to ensure that the allocation of limited resources is fair and equitable using geographic prioritisation, area-based programming and community-based beneficiary selection tools. The Government will seek the inclusion and participation of all affected persons in decision-making processes, especially the selection of beneficiaries. Geographic prioritisation has been employed to establish national-level priorities whilst integrated area-based programming tools are to be applied at the State and Region levels to bridge national and community-level targeting mechanisms.

Institutional and Implementation Arrangements and Resource Mobilisation provides guidance on how the National Recovery Programme is be implemented and managed. With regards to the Recovery Programme, the roles and responsibilities of the various types of government entities are outlined and a management structure introduced, with particular emphasis on coordination, information management, monitoring and evaluation and financial management,



*photo credit: Ministry of Construction*

## **C. NARRATIVE DESCRIPTION OF ACTIVITIES AND IMPLEMENTATION STANDARDS**

## C1. COMMON IMPLEMENTATION STANDARDS

The Government of Myanmar is committed to implementing the National Recovery Programme in line with its stated Recovery Principles and must uphold and ensure compliance with the following common implementation standards to ensure the targeted, equitable, coordinated, inclusive and effective implementation of Recovery Activities:

- Ensure that all affected groups, irrespective of class, gender, age, physical or mental ability, sexual orientation, race or ethnicity, or political views, are recognised in the provision of recovery assistance.

The provision of assistance is based on need; aid should not be used to further the aims of any one specific group. The entire National Recovery Programme stands to lose credibility and, in a worst-case scenario, access to affected areas were the impartiality of the Recovery Process to be called into question.

This is especially true for areas in which there are pre-existing tensions and conflict. Recovery Implementers must take care to not further aggravate or inflame such situations. It is imperative that such tensions not be allowed to slow or misdirect this humanitarian undertaking.

- Make use of existing community committees or leadership structures to ensure that ordinary people are able to provide input in decision making processes. The Recovery Programme is to avoid creating new community structures.

It is often far more effective to build on existing structures, unless they are corrupted or discredited, rather than try to establish parallel structures which might be unfamiliar to affected communities.

- In the provision of assistance, ensure that there is participation from all segments of the community. This includes in decision-making processes as well as implementation. This is especially true for beneficiary selection.

Community members take more ownership of processes when they have participated in the decision making. Were Recovery Implementers to insufficiently consult community members and assume all decision-making authority, they also assume all the responsibility for any dissatisfaction that might occur. Ensuring the participation of community members in decision-making will make implementation smoother.

- All project sites should be accessible to all persons in affected households, particularly those living with disabilities, the elderly, female-headed households or single women, pregnant women and people living in remote areas.

Consider that if distribution points or project sites (or the routes to get to them) are considered unsafe, vulnerable groups will miss out on assistance. Essential items such as water and sanitation facilities must be physically accessible and safe, especially for women and children, at distribution points and project sites.

- Ensure that male and female staff are present to assist all beneficiaries as not all persons might be comfortable dealing with staff from the opposite sex.

- Establish feedback and complaints mechanisms to allow affected communities to appeal decisions, lodge complaints, or make suggestions.
- Information on planned activities should be provided in local language and should not rely on just one form of dissemination, but must be distributed in a variety of ways, including through community groups, the media and community mobilisers who target remote locations and the marginalised.
- Coordinate with other Recovery Implementers in other Sectors and Ministries as well as with development and humanitarian partners to ensure all affected areas and populations are assisted.

Coordination should also extend to the implementation of activities themselves. Communities should be consulted on their priorities in the provision of assistance across different sectors. The responsible ministries and local authorities should make every effort to reduce confusion and jointly approach and consult communities.

- Agencies and Organisations should articulate their policies clearly (including all common and technical standards) to their subcontractors and private sector partners.
- All Recovery Implementers are to comply with all regulations safeguarding the occupational safety and health of workers and the improvement of working conditions, including the Factories and General Labour Laws Inspection Department of the Ministry of Labour, the Occupational Health Unit of the Ministry of Health, the Ministry of Construction and the Myanmar Agricultural Service of the Ministry of Agriculture and Irrigation.

All Recovery implementers are to work with the relevant public agencies to establish guidelines for safe work for all persons working as part of the National Recovery Programme, especially those employed as part of reconstruction activities and participants of cash-for-work programmes. This includes the establishment of compensation guidelines for those injured as part of the recovery progress and the necessary insurance coverage.

Several of these standards, including those on community participation, information provision and the establishment of grievance/feedback mechanisms are discussed in more detail in the section on Outcome 3 on page 77. Monitoring on the common standards and beneficiary selection standards shall be carried out in all targeted areas.

## C2. GENDER INEQUALITY

The inclusion and participation of men and women are necessary for the successful implementation of the National Recovery Programme. However, it is important to bear in mind the different circumstances of and opportunities available to men and women.

Out of the 146 assessed in the 2011 Gender Inequality Index, Myanmar ranked #96, slightly ahead of Cambodia and Laos. It has achieved gender parity in education, with regards to the enrolment ratios of boys and girls in primary and secondary schools. And whilst women in Myanmar enjoy equal rights in inheritance laws and equal marital property rights in the case of divorce, patriarchal cultural values related to women's roles and responsibilities still shape

familial relationships, contributing to the gendered division of labour and limit women's participation in decision making at all levels.

Additionally, these disparities are more pronounced in many of the rural areas targeted by the National Recovery Programme, with key issues of concern including high maternal mortality rates; insufficient access to reproductive and basic health services; and low levels of women's participation in public decision-making and in the labour market. Furthermore, there is a lack of disaggregated data across numerous sectors.

Whilst it is beyond the scope and resources of the National Recovery Programme to resolve these longstanding issues which permeate the whole of society, it is important that all activities not contribute to worsening existing gender disparities and align with the National Strategic Plan for the Advancement of Women 2013-2022, especially with regards to:

### **Economic Equality and Equal Participation**

Female participation (63.1%) in the labour market is significantly below that of men (85.1%). Though the share of women in paid employment and in non-agricultural jobs has gradually increased, women still face limited access to labour markets in industry and services. A wide gap remains between men and women in higher ranks of paid employment, with women concentrated in lower-ranked and lower-skilled jobs. All Recovery Activities, whether directly implemented by government agencies or by subcontractors, should ensure that men and women are given equal consideration in hiring and do not face discrimination because their sex or gender and receive equal pay for equal work.

Women also provide unpaid, largely invisible and unrecognised care work at home in addition to their paid work in the public sphere. Women are often the keepers of hygiene in a household and responsible and are more likely than men to be responsible for water collection. Breakdowns in the provision of basic services and infrastructure affect men and women in different ways.

Additionally, as part of the common standards which apply to all activities, the improvement of transportation infrastructure and social services must consult all relevant community stakeholders, including women, to ensure that their specific perspectives are incorporated into activity design, and should alleviate safety concerns and other issues which currently restrict women's access to markets.

It was identified, as part of the joint evaluation of the Indian Ocean Tsunami Response, that the livelihoods inputs provided to men and women were wildly disparate: men were provided with fishing boats whereas women received classes and materials for weaving. This reinforced existing disparities. Men and women are to be provided livelihood inputs of approximately equal earning potential.

### **Gendered Perceptions in Agriculture**

Women are a critical source of rural labour, but often undertake gender-specific, lower-paid agricultural tasks. When discussing the rural wage gender gap, women described themselves not as farmers but as workers. This identity may stem in part from the fact that land ownership (and the possession of land use certificates) is heavily skewed towards men. But it should also be noted that due to the gendered perception of the word "farmer" in Myanmar, additional, gender-specific language should be used in the implementation of agricultural

recovery activities so as to not unwittingly exclude women. All forms of Recovery Assistance are to consider all persons working in agriculture, whether they term themselves labourers or farmers. Special attention will be paid to casual labourers as they are usually some of the most vulnerable persons.

## **Health**

Myanmar has a high maternal mortality rate, with 240 deaths per 100,000 live births. Postpartum haemorrhage, eclampsia and complications from unsafe abortions are the leading causes of maternal deaths, according to the National Health Plan. In light of this, pregnant-and-lactating women are recognised as one of the vulnerable groups to be prioritised for beneficiary selection. Additionally, there is a large unmet need for contraception and sex education; the Recovery Programme will ensure that sufficient reproductive health materials are included in the provision of medical supplies and equipment to affected areas as part of Output 1.4 on page 48.

## **Equal Access to Inputs and Credit**

Women in a UNDP survey reported severely-restricted access to the inputs and credit necessary for productive farming. Agricultural extension services and equipment were all perceived as being designed for and used by men. Women also explained that it was difficult to obtain loans and credit because men were often registered as the head of the household. Gender sensitisation activities planned for agricultural extension workers in order to familiarise themselves with the perspectives and needs of women working in agriculture. In the provision of credit, the Government of Myanmar will work with financial institutions and state-linked agencies to review how they may better serve women and other groups usually excluded from access to credit.

## **Gender-based Violence**

The Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) Committee expressed concern over the incidence of domestic and sexual violence, including rape as well as the apparent culture of silence and impunity. Public awareness of gender-based violence remains low and the collection of data problematic. In many cases, traditional sociocultural beliefs, low social value of women, lack of knowledge of their rights and insufficient support services (legal, health, counselling and shelters) collude to ensure that cases are under-reported and settled outside of court.

As part of their work in ensuring Social Protection and Accountability to communities, the Department of Social Welfare will establish specific mechanisms for sensitive complaints (such as gender-based violence and other forms of abuse) which ensure the confidentiality of complainants. All target communities will also be sensitised on their rights as well as on protection concerns in their community.

## **C3. ENVIRONMENTAL PROTECTION AND ENVIRONMENTAL IMPACT ASSESSMENTS**

Environmental Protection activities are discussed in more detail on page 26, but it is key to point out that all activities under this plan are subject to the environmental protection regulations under the Environmental Impact Assessment Act, specifically those projects which:

**Modify landforms, natural ecosystems and natural landscapes**

This includes the planning of new settlements, the rehabilitation of destroyed farmland as well as the majority of construction-oriented activities.

**Exploit renewable and non-renewable natural resources**

Examples of this include the construction of irrigation systems, dams and other water systems, the installation of electrical and telecommunications lines and activities which involve harvesting natural materials i.e. for the repair of houses.

**Have the potential to cause waste, damage, or decline in ecosystem services**

This includes distribution activities which might create the need for solid waste management, the dredging of river beds as well as the disposal of debris. If improperly managed, all activities run the risk of causing waste and damaging ecosystem services.

**May affect the social and cultural environment**

This includes settlement planning, the introduction of new cropping techniques as well as the vocational training and the introduction of alternative livelihoods.

**May affect the preservation of natural resource conservation areas and/or the protection of cultural and historical reserves**

This mainly pertains to settlement planning but large infrastructure works, such as road and bridge construction, have the potential to affect natural resource conservation and the protection of cultural and historical reserves.

**Introduce new species of plants, animals, and microorganisms, including genetically-modified organisms**

This includes the introduction of new seed varieties and the introduction of alternative livelihood sources.

**Include applications of technology which are predicted to have considerable potential to affect the environment**

This includes the introduction of new cropping techniques as well as the rehabilitation of destroyed farmland.

**Have high risks and potentially affect national security**

None of the proposed activities are currently considered to be high risk or having an effect on national security.

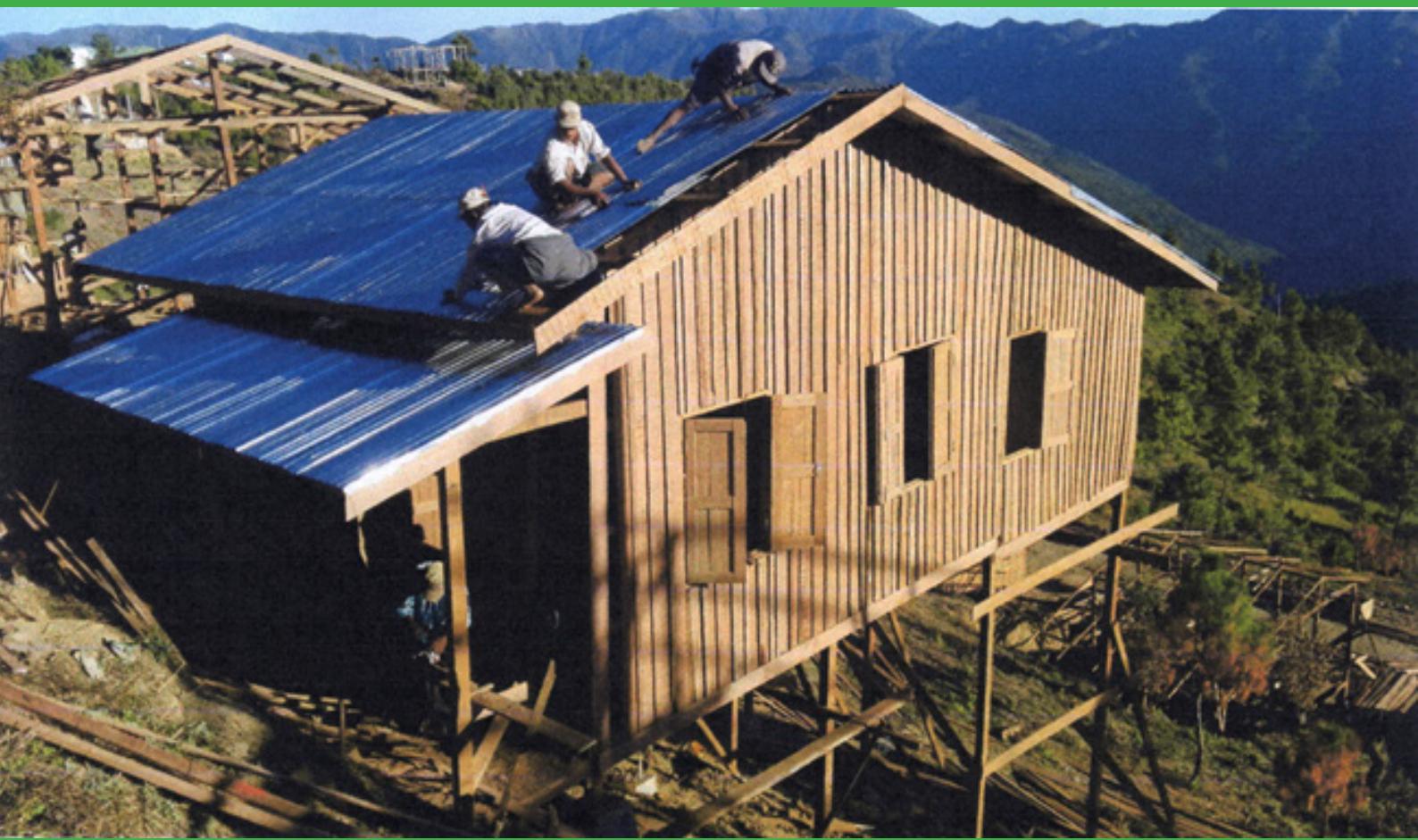
**Involve the production and use of biotic and abiotic substances**

This may include activities related to food processing and value chain development.

**Any other criteria which may significantly affect the environment**

Recovery Implementers are advised to seek further information with the Ministry of Natural Resources and Environmental Conservation – it is the agency tasked with the governance and implementation of the Environmental Impact Assessment Act.

The Ministry of Natural Resources and Environmental Conservation shall, following the adoption of this Recovery Plan, develop and disseminate guidelines for compliance with the Environmental Impact Assessment Act with all relevant line ministries and State/Region authorities.



*photo credit: Ministry of Natural Resources and Environmental Conservation*

# **OUTCOME 1**

## **IMPROVED LIVING CONDITIONS AND ACCESS TO BASIC SERVICES**

## **OUTPUT 1.1 REHABILITATED AND IMPROVED HOUSING AND SETTLEMENTS FOR FLOOD-AFFECTED HOUSEHOLDS AND COMMUNITIES**

Housing activities are some of the most personal and long-lasting interventions in the National Recovery Plan; Recovery Implementers are advised to respect and uphold all Housing Standards. The management of this output is the responsibility of the Housing Sector, comprised of the Ministry of Construction (lead agency), the Ministry of Natural Resources and Environmental Conservation and the Ministry of Electricity and Energy. Collectively, the Housing Sector will plan, monitor and administer the implementation of activities listed in this output.

Additionally, based on the state/regional budget breakdowns in the section on targeting and allocation on page 104, the Housing Sector will also divide the available housing funding across the affected states and regions and develop detailed plans with them; the Housing subcommittee is also to hold implementing agencies and bodies to account for the effective implementation of activities and accurate and timely reporting of the identified indicators.

### **1.1.1 Develop and Implement Build Back Better Guidance**

The country's new building code, Myanmar National Building Code (MNBC-2012), is provisional. It was developed under the National Building Code Project, led by the Ministry of Construction. MNBC-2012, however, applies only in general to non-engineered buildings such as homeowner-built housing and does not have the same detailed specifications for them as it does for engineered buildings. To improve the safety of informally-built housing, the development of simplified guidelines should be developed and disseminated at village level. The development and implementation of Build Back Better Guidance is integrated into the provision of technical support and monitoring of all housing and infrastructure interventions under Outcome 1.

According to the GFDRR, post-disaster reconstruction efforts worldwide have provided lessons which may be adopted as principles when developing and implementing Build Back Better guidance:

- New designs and guidelines should be developed using multi-hazard assessments
- The community and stakeholders must be educated about adopting risk reduction/safer building practices
- Long-term financing options should be developed for structural improvements
- Use of appropriate incentives to promote new building regulations
- Focus on inspections of construction quality
- Training must be provided to stakeholders involved in design and construction
- Designs for owner-built reconstructed houses will require a high tolerance for human errors and require professional supervision.

According to the PFLNA, MNBC-2012 should be the standard for post-flood and landslide reconstruction. As both the Government and the construction industry are aware of the provisional codes, they should be applied to the reconstruction of all schools, health facilities and other public buildings as well as bridges and roads. In addition to developing simplified Build Back Better Guidance for non-engineered structures, the Ministry of Construction shall collect and review all Recovery housing and infrastructure designs and ensure their alignment with MNBC-2012.

The development and application of Build Back Better guidance should also take into account the development of the National Housing Policy and Housing Development Law

which seek to establish a balanced and sustainable process for developing new settlements and providing adequate housing for all citizens.

## HOUSING REPAIR AND RECONSTRUCTION

Through the lens of resilience, the loss of housing represents a significant blow to a household's absorptive capacity, restricting their ability to protect themselves from the elements and safely navigate their built environments. The repair and reconstruction of damaged and destroyed housing is intended to be the focal point around which all other infrastructure interventions revolve: not only did the Housing Sector experience the greatest damages and losses of any sector, but investments in health, education, transportation, ICT and WASH should be coordinated with the site improvement and development plans developed as part of this output.

### 1.1.2 Housing and site inspection and

### 1.1.3 Develop settlement improvement plans together in consultation with communities

It is first necessary to conduct further inspections of flood-and-landslide damaged houses: though they were enumerated during the emergency phase, a technical inspection was never completed. Additionally, as the majority of those living in damaged houses would have either begun repairs or have completed them already, housing and site inspections are necessary to assess:

- The soundness of local building practices
- The current state of repairs and construction to lay the groundwork for the provision of housing materials and technical support
- Unsafe sites or environmental risks which may require earthworks or necessitate the relocation of communities, including unsafe slopes, riverbank erosion and waterlogged and swampy land.

Based on the housing and site inspection, Recovery Implementers are to develop settlement improvement plans in consultation with communities, including the design of the house the scope of planned work, schedules for implementation and specific eligibility criteria. Consultations should uphold the common standards as well as accountability standards in Outcome 3.

Community input is desirable in housing activities; the extent to which their housing is satisfactory or adequate to them has large implications for the entire community (see page 33). There should be widespread consultation and the establishment of grievance/feedback mechanisms. Recovery Implementers should try to account as much input and feedback as possible in the implementation of these activities.

Clear guidelines are also to be established for the inspection of houses. The PFLNA recognised four different types of damaged houses: those which had totally collapsed, those which had sustained major damage, those which had minor-moderate damage and those which only sustained light flood damage, coinciding to various levels of damaged enumerated by the Shelter Cluster (2014, Philippines):

	Destroyed	Major Damage	Minor-Moderate Damage
Huts, including bamboo structures	• Collapsed totally	<ul style="list-style-type: none"> <li>Foundation off from wooden posts</li> <li>Walls missing/damaged</li> <li>Wooden posts/beams bent/cracked/dislocated</li> <li>Building tilting sideways</li> <li>Roof missing/damaged</li> </ul>	<ul style="list-style-type: none"> <li>Stairs collapsed/missing</li> <li>Doors and windows damaged</li> <li>Floors collapsed/broken</li> </ul>
Timer-frame houses	• Collapsed totally	<ul style="list-style-type: none"> <li>Building tilting sideways</li> <li>Concrete/timber columns/beams damaged/cracked/bent</li> <li>Concrete hollow blocks collapsed/tilted/cracked</li> <li>Roof damaged/missing</li> <li>First Floor Collapsed</li> </ul>	<ul style="list-style-type: none"> <li>Doors and windows damaged</li> <li>Floor slab broken/cracked</li> <li>Plaster damaged/cracked</li> </ul>
Timber-and-concrete Houses	• Collapsed totally	<ul style="list-style-type: none"> <li>Building tilting sideways</li> <li>Concrete/timber columns/beams damaged/cracked/bent</li> <li>Concrete hollow blocks collapsed/tilted/cracked</li> <li>Roof damaged/missing</li> <li>First Floor Collapsed</li> </ul>	<ul style="list-style-type: none"> <li>Doors and windows damaged</li> <li>Floor slab broken/cracked</li> <li>Plaster damaged/cracked</li> </ul>
Concrete Houses			

The Housing sector may also choose to modify these categorisations but the specific damage sustained will influence the combination of materials and tools, construction and technical support provided to each community.

The National Recovery Plan proposes a range of rehabilitation and reconstruction options to those whose houses have been destroyed or suffered major or moderate damage:

	Construction	Household WASH	Materials Distribution	Technical Assistance	Household NFIs	Temporary Housing	HLP* support
A. Reconstruction							
B. Resettlement							
C. Major Damage							
D. Moderate Damage							

**\*Housing, Land and Property (HLP) Rights should apply to all persons, but communities identified for resettlement are in specific and specialised need of HLP and legal support.**

There are 4 proposed housing packages, each offering a different combination of materials, construction, services and NFIs to replace household goods lost in the flooding and landslides. These interventions should be coordinated closely with other activities under Outcome 1 as well as with Cash-for-Work interventions which may be used to provide labour for debris removal and the clean-up of communal areas.

Item	Unit cost ('000 kyat)	HHDs	Total cost ('000 Kyat)
House reconstruction (A)	3,730	16,687	62,242,510
House relocation (B)	5,280	4,534	23,939,520
House repair - heavy damage (C)	1,720	59,406	102,178,320
House repair - moderate damage (D)	860	90,594	77,910,840
Labour for house repairs (C and D)	150	150,000	22,500,000
Technical assistance for house repairs (C and D)	50	150,000	7,500,000
Temporary housing (50% of A and B)	630	10,611	6,684,615
Household WASH rehabilitation (a), (b) and (c )	280	80,627	22,575,560
Household NFIs (a-e)	150	171,221	25,683,150
<b>Total</b>		<b>171,221</b>	<b>351,214,515</b>

The above per unit costs are based on estimations from the PFLNA. Recovery implementers are advised to inform affected communities that these standards do not take the pre-flood value of housing units into account. These standards are intended to provide an adequate level of assistance to those who have been affected.

#### **1.1.4 Provide housing materials for repairs and**

#### **1.1.5 Provide Technical support to homeowners**

The design and distribution of two different housing materials packages are proposed (packages C and D), for those whose houses have sustained moderate to major damage from the disaster. The specifications for both types of packages will be developed by the Ministry of Natural Resources and Environmental Conservation and Ministry of Construction together with State/Region Governments.

In areas which have access to markets, the specific needs of affected households may also be addressed through holding vendor fairs, where beneficiaries are provided vouchers or cash and are allowed to select from a range of materials and tools from local vendors.

In addition to the development of Build Back Better guidance, Recovery Implementers – due to the large proportion of homeowner-constructed houses in Myanmar – are to provide technical support to those undertaking the repair and reconstruction of their homes. This technical support will take the form of organised build-back-better workshops held in affected communities and the provision of relevant, community-oriented IEC materials, where the safe construction principles will be shared as well as through roving teams of experts and volunteers who will perform site visits and provide advice and technical assistance.

House repair and rehabilitation tends to be a lengthy and incremental process; the provision of technical support should be sustained long after the materials and tools are provided/distributed. Because of this, build-back-better workshops might also want to consider how the guidelines might be applied to existing structures: it is unlikely that the provision of materials and technical support will convince homeowners to tear down existing structures – no matter how poorly-built they are – and start again. Technical support should also focus on repair and retrofitting.

This mobilisation of technical support should be conducted in conjunction with the implementation of vocational training under Output 2.3 and the National Skills Standards Authority which has been engaging newly-trained carpenters to lead the house-to-house inspections and to provide training and quality control over homeowner-driver house repair and reconstruction. Inspectors should receive special certifications and understand that they will have the opportunity to be mobilised for future post-disaster work.

#### **1.1.6 Reconstruct destroyed houses**

Though the majority of households targeted for Housing Interventions will undertake the repairs and rehabilitation themselves, as is local custom, the National Recovery Programme has made additional provisions for the full reconstruction of destroyed houses for the most-vulnerable households with the least capacity for self-recovery. These include the elderly, child- and female-headed households, those with disabilities and those whose livelihoods have been severely damaged by the disaster.

Due to the wide range of agencies implementing house reconstruction, the Housing Sector is to establishing minimum standards for all Recovery Implementers. The Housing Sector is also to review all designs and implementation plans to ensure that there is no significant material difference in the provision of assistance across State and Regions.

### **Additional Guidelines for House Repair and Reconstruction**

It is advisable, in the undertaking of this initiative to be aware that due to its resource- and time-intensive nature, there may be several unintended consequences which might delay or invalidate the provision of Housing support. It is the purpose of this section to highlight evidence from previous emergencies and apply it to the National Recovery Programme.

#### ***Linking Housing and other Outcomes***

The success of Housing activities is contingent upon the coordinated implementation of a number of other activities in other sectors. Whilst not commonly regarded as a productive asset, housing is deeply tied to the longer-term economic recovery of families and communities. This is summed up in the Seven Economic Impacts of shelter (Sheppard 2005):

1. Income increases faster for families provided with shelter than others
2. Emergency shelter investments generate an economic payback valued at 3 to 8 times the value of the initial investment
3. Shelter has a positive economic return for the poorest and most vulnerable, even in the short term
4. Shelter benefits last well beyond the recovery period
5. Shelter benefits are larger after a year or two because of forward linkages
6. Shelter has a vital, but underappreciated role as capital for development
7. Beyond capital, but linked to it, shelter is also a platform for increasing income

Together, the interplay between Housing and Livelihoods is a key enabling factor to increase resilience and wellbeing:

- Financial service providers often offer loans to individuals with collateral security – such as those with secure tenure
- Housing that requires constant repairs or is vulnerable to risks leads to the withdrawal of household savings and the consumption or sale of productive assets
- Access to safe housing increases chances of a household residing for longer periods in a given location; this increases a household's access to support networks and enhances chances for access to livelihood-enhancing interventions that are group-based, such as community block grants and savings and loans groups
- Sustainability and consistency of income can enable households to incrementally invest in improving their housing from their own efforts and resources

Sheppard et al., (2008). Response to Earthquake. ALNAP (2008).

Additionally, the Sector goal of “improved housing and settlements” cannot be achieved without the requisite investments in water and sanitation, transportation, health and education infrastructure. It is advised that the Housing Sector take the lead in the planning of settlements and be charged with coordinating with all other sectors under Outcome 1.

### ***The Right to an Adequate Standard of Housing***

The right to adequate housing is much more than a shelter commodity, it is the right to live somewhere in security, peace and dignity. The criteria for Adequate Housing include:

Security of tenure: Notwithstanding the type of tenure – be it private ownership, cooperative housing, occupation of land/informal settlements or other customary, religious or hybrid arrangements, all persons should possess a degree of security of tenure which guarantees legal protection against forced eviction, harassment and other threats.

Cultural Adequacy: Adequate housing should respect and take into account the expression of cultural identity and ways of life.

Affordability: Personal or household expenses associated with housing should not threaten or compromise the satisfaction of other basic needs such as food, education and healthcare.

Availability of services: Adequate housing should have access to natural and common resources; safe drinking water; energy for cooking, heating and lighting; adequate sanitation and washing facilities; means of food storage and refuse disposal; site drainage; and emergency services.

Habitability: Adequate housing must provide inhabitants with adequate space and protect them from cold, damp, heat, rain, wind or other hazards and threats to health. The physical safety of the occupants must be guaranteed as well.

Accessibility: Adequate housing must take into account the specific needs of the vulnerable and marginalised, including the poor, the elderly, children and persons with disabilities or life-threatening diseases.

Location: Adequate housing must be sited in a location which allows access to employment options, healthcare, schools, childcare and other social services. Housing should not be built on polluted sites nor in immediate proximity to pollution sources.

The right to adequate housing must be enjoyed without discrimination of any kind on the basis of gender; ethnicity; sex; sexual orientation; language; religious or political beliefs; national, ethnic or social origin; legal or social status; age; disability; or other status. This includes the common bias in favour of persons who hold formal property titles over persons with other forms of tenure. The National Recovery Programme must be targeted towards the most vulnerable and marginalised.

### ***Unintended use of Housing materials***

Unintended sales occur primarily because of three reasons:

- a) Targeting errors where households which should not received assistance were provided with items and materials that they do not need. When this occurs, no recourse should be taken against beneficiaries who were provided with assistance in error; however, those who do meet the eligibility requirements but were previously excluded from activities should be provided with included in the programme and provided with the requisite amount of assistance.
- b) Design errors where activities and materials provided do not match the needs of affected communities or are inappropriate for the context. Were this to occur, Recovery Implementers must reassess and redesign the relevant activities so that they meet the needs identified.
- c) Economic difficulties are a very common reason for the sale of valuable assets such as a house or housing materials. It is anticipated that households across the affected areas will experience decreases in income. This places increased pressure on households to meet their consumption and food security needs. In dire cases, affected households might sell valuable assets in order to meet their short-term needs, which they consider more pressing.

It is best practice to attempt to mitigate the sale of houses/construction materials by providing clear information about the intentions of the housing programme and presenting alternatives for those under economic pressure.

Many households which receive housing support will, in many cases, be eligible for multiple types of assistance such as agricultural support and cash-for-work. These interventions should be implemented in tandem with housing repairs and construction in order for affected households to receive the full benefits of integrated support.

It should, however, be clarified that distributed materials and constructed houses are the property of the beneficiaries who, in absence of other pre-agreed commitments, may dispose of them as they wish.

Additionally, to ensure appropriateness and relevance, a combination of vouchers, cash and materials should be considered for the delivery of housing interventions in areas which have access to markets. However, it is the intention behind these activities is provide durable housing options; there is no assurance that were housing packages to be provided solely in cash, that stakeholders would make investments in durable housing. The many tangible and intangible benefits of durable and resilient housing will, over time, far exceed the initial investment of manpower and resources.

## RESETTLEMENT AND RELOCATION

### 1.1.7 Community planning and preparation for relocation and site improvement and 1.1.8 Relocate identified flood-and-landslide affected communities

The Government of Myanmar believes that resettlement and relocation should be always be the last resort and should be avoided where possible.

People who are unavoidably displaced should be compensated and assisted so their economic and social future would be generally as favourable as it would have been in absence of the relocation.

People affected should be informed fully and consulted on resettlement and compensation options.

Existing social and cultural institutions of resettlers and their hosts should be supported and used to the greatest extent possible, and resettlers should be integrated economically and socially into host communities.

Many options exist to control the impact of flooding and landslides on existing settlements; these mitigative and preventive adaptations and controls should be exhausted prior to considering relocating a community.

The absence of formal legal title to land by some affected groups should not be a bar to compensation; particular attention should be paid to vulnerable groups, including households headed by women, ethnic and religious minorities and the poor; and appropriate assistance provided to them.

### Resettlements Standards and Guidelines

In the absence of other feasible options, Recovery Implementers undertaking resettlement projects should plan for and mitigate these potential negative impacts of population displacement:

<b>Effects on Displaced Population</b>	Landlessness Homelessness Loss of income Loss of economic networks Loss of access to public services	Loss of access to social services Loss of social networks Impact on health Loss of community assets
<b>Effects on Populations that will continue living at the site*</b>	Loss of income Loss of economic networks Poorer-quality public services	Poorer quality social services Loss of social networks
<b>Effects on the Host Population</b>	Greater competition for jobs and resources Poorer-quality public services	Poorer quality social services Increased mortality and morbidity Emergence of disputes

*\*applicable if the entire population is not relocated*

The negative impacts of displacement may vary in accordance with several factors, including the amount of time lived at the site; use of property, which may be for housing, the pursuit of economic activities or a combination of both; income from activities pursued on the property; the extent to which current housing enables basic needs to be satisfied; the degree of social cohesion in the community; and the type of family and support networks available.

However, given the severity of the potential adverse effects of resettlement, failure to mitigate them would invalidate the resettlement process; represent the loss and wastage of large government investments; and make resettled communities more vulnerable and less resilient than before.

### ***Consultation and Information Provision***

Working together the Department of Social Welfare and GAD, the Ministry of Construction and Relief and Resettlement Department is to undertake concerted information provision and consultation to both resettled communities and host communities. Recovery Implementers must advise communities on the specific terms of the relocation and their plans on ensuring that the right to adequate housing (please refer to page 33) is ensured for all affected persons. When individuals are aware of alternatives and these address their needs, the impact of resettlement is lower.

Additionally, all relocated persons must be informed of the alternatives and options – as well as how each type of compensation package was calculated – available to them and must be advised of their right to participate in decision-making processes as well as to provide feedback and appeal decisions.

### ***Community Participation***

Communities to be resettled should be consulted, together with host communities and local authorities to reach agreements of conditions of the resettlement, including tenure arrangements, site services, land use and management and timelines.

However, the Government of Myanmar recognises that due to the fact that many persons are still living in unsafe conditions, displacement camps and temporary housing, communities might feel that they are at a disadvantage during negotiations. It is important that communities are provided with options that they may choose from. The Government of Myanmar is against any form of forced eviction or relocation as part of the National Recovery Programme.

Insufficient community participation in decision-making processes presents one of the greatest risks to the satisfactory completion of resettlement activities. Community participation should be sought in the development of compensation packages, selection of a site, development of site services as well as how resettlement activities may be coordinated with interventions from other sectors.

According to the GFDRR's Resettlement Guide, the main risk that resettled communities face is impoverishment; and given that land is the basis of productive systems, commercial activities and livelihoods in Myanmar, sustainable and secure access to land is a key part of any resettlement process.

### **Dedicated Grievance Mechanisms and Monitoring**

The Housing Sector shall establish dedicated grievance and appeals mechanisms for relocated communities. Regular, independent monitoring must also be conducted of relocated communities to ensure that Recovery Implementers are complying with all relevant guidelines and standards and that feedback and complaints from communities are confidentially collected and responded to in a timely manner.

### **Environmental Impact Assessment and Disaster Risk Assessment**

In line with the Environmental Impact Assessment Act, any new settlement must undergo an environmental impact assessment. Additionally, the new site must be safe from environmental shocks and stresses.

### **Coordination with Other Sectors**

The establishment of a new settlements is a risky endeavour: new settlements have few of the established networks, customs and income-generation opportunities that established communities enjoy. Special attention must be paid to ensure that new settlements are provided the requisite infrastructure and livelihood investments.

### **Resettlement Packages**

In the development of resettlement alternatives and options, Recovery Implementers may not provide affected households solely with cash without ensuring that they will be able to secure durable housing. This would run contrary to the stated sector goal of “improved housing and settlements”. Having a strong, resilient shelter is one of the cornerstones of improving living conditions for affected households, the many tangible and intangible benefits of which will, over time, greatly exceed the current investment of materials and manpower.

Recovery Implementers are also advised to develop a wide range of communal and individual packages to cater to differing needs.

#### **1.1.9 Monitor implementation of Housing Activities**

A specific monitoring system is to be developed – in alignment with the overall monitoring standards of the Recovery Programme – in order to capture the:

- Progress in construction and repairs
- Quality of construction and repairs, including how well implemented activities align with national standards
- Challenges in implementation which may be escalated to the appropriate decision-making bodies

The Housing Sector is to develop detailed guidance on how the progress of housing activities should be monitored and roll it out for all Recovery Implementers.

#### **1.1.10 Facilitate private sector and civil society participation in housing recovery**

The Ministry of Construction, the lead agency in the Housing Sector, will create, in consultation with the private sector and civil society, the appropriate fora for their inclusion in the housing recovery process. Topics for discussion include the funding of housing recovery, the establishment of joint technical guidelines with civil society and private developers/contractors, the widespread institution and implementation of MNBC-2012 and other national standards for housing. this activity is expected to increase the participation of both the private sector and

civil society in housing recovery with regular engagement being held at both the national and state/region levels. This engagement will continue until the completion of all housing-related activities under the national recovery programme.

#### **BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 1.1**

	Description	Budget in million kyats
<b>1.1</b>	<b>Rehabilitated and improved housing and settlements for flood-affected households and communities</b>	<b>357,040</b>
1.1.1	Design/adapt and disseminate build back better guidance	500
1.1.2	Housing and site inspection	1,825
1.1.3	Develop settlement improvement plans	1,025
1.1.4	Provide household NFIs	25,683
1.1.5	Distribute housing assistance and recovery (repair)	196,723
1.1.6	Provide technical support and labour	30,000
1.1.7	Reconstruct destroyed houses	72,171
1.1.8	Community planning and preparation for site improvement and relocation	625
1.1.9	Relocate and resettle identified communities	26,637
1.1.10	Housing recovery monitoring	1,550
1.1.11	Facilitate private sector participation in housing recovery	300

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
1.1.1										
1.1.2										
1.1.3										
1.1.4										
1.1.5										
1.1.6										
1.1.7										
1.1.8										
1.1.9										
1.1.10										
1.1.11										

## **OUTPUT 1.2 IMPROVED COMMUNITY ACCESS TO SAFE WATER SOURCES AND SANITATION**

The disaster caused widespread impact on water, sanitation and hygiene infrastructure, including WASH infrastructure in education and health facilities. The total disaster effects, including both damages and changes in economic flows, have been estimated at MMK 58.2 billion. Estimates based on GAD damage assessments show a significant decrease in access to improved water supplies and safe sanitation across the affected states and regions.

There is a wide variance in the types of WASH infrastructure across the affected States and Regions. Ayeyarwaddy and Rakhine rely mainly on surface water ponds, Chin uses gravity-piped water systems and areas in the dry zone (Magway, Mandalay, Sagaing and Bago) have a higher percentage of tubewells.

Gravity-piped water supplies in Chin State experience localised destruction from substantial landslides. In Rakhine and Ayeyarwaddy, open surface water collection ponds were contaminated by turbid and pathogen-loaded floodwaters. Rakhine also experienced storm surges which caused saltwater infiltration. In other areas which experienced high water flows, headworks of tubewells were completely destroyed and unprotected wells inundated with sediment and debris.

Additionally, it was estimated by the PFLNA that more than 500,000 sanitation facilities were severely affected, with most of the affected facilities being fly-proof latrines, which are simple, raised huts that have a plastic toilet pan with a pipe draining into a subsurface soak pit. The pits are usually unlined, making them extremely vulnerable to flooding.

### **1.2.1 Provide disaster-affected persons with timely and dignified access to safe and appropriate WASH facilities**

In order to respond to the immediate suffering caused by the breakdown in WASH systems and loss of access to safe and appropriate WASH facilities, the Government of Myanmar and its humanitarian partners, between July 2015 and January 2016, chlorinated 137,188 water sources. 207,000 water purification tablets, 39,000 hygiene kits and 19,7000 latrine pans were also distributed. Water quality testing was also carried out across the affected areas. This activity has since concluded.

### **1.2.2 Rehabilitate damaged water and sanitation systems in communities using a build-back-better approach**

In addition to emergency-phase interventions, longer-term repairs and rehabilitation is required. Prior to the disaster, an average of 70.46% of households across flood-affected townships had access to safe sanitation (flush toilets or water-sealed latrines) and 65.47% had access to improved drinking water sources (defined as piped drinking water, boreholes, tubewells, protected wells, rainwater collection and springs and bottled water). Most of the flood-affected areas did not deviate greatly from these averages, with the exception of Rakhine where 72.18% of households did not have access to improved drinking water sources and 76.70% did not have access to safe sanitation.

In light of the wide range of safe and appropriate water supply and sanitation systems available to communities as well as the aforementioned regional variations and particularities, the

rehabilitation of public and communal WASH infrastructure is to be conducted in a holistic manner and administered through the provision of community block grants.

The WASH Sector, in collaboration with State/Region Governments, will work with local authorities to develop and implement comprehensive community-based WASH programmes based on community preference, the effects of the disaster and pre-existing WASH conditions. Activities which maybe included under the Rehabilitation of damaged water and sanitation systems include:

<b>Improved drinking water sources</b>	<b>Community Sanitation interventions</b>
<ul style="list-style-type: none"> <li>• Piped water</li> <li>• Boreholes</li> <li>• Tubewells</li> <li>• Protected Wells</li> <li>• Rainwater collection</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed-waste and agricultural waste composting</li> <li>• Latrine Construction and upgrading</li> <li>• 4 Cleans Campaign</li> </ul>

The provision of latrines together with Housing repair and reconstruction has been included under Output 1. Community WASH grants should be designed and employed to improve WASH infrastructure and promote hygiene, the impacts of which are numerous:

- Diarrhoea is already one of the leading causes of morbidity in Myanmar. The combination of flood-affected latrines and increases in open defecation aggravates the risks of diarrheal diseases and with diarrhoea already being one of the leading causes of morbidity in Myanmar, its reduction should be regarded as a universal good.
- The collection of water in rural communities is generally time-consuming and tiring, with many women and men spending several hours a day collecting water at the expense of productive activities that could contribute to poverty reduction.
- Inadequate access to safe, hygienic and private sanitation facilities is source of shame, physical discomfort and insecurity for women and girls. Functioning sanitation systems reduce the distance that women and girls have to walk for ablution privacy.
- The use of untreated water for cooking and drinking has also increased, and given the poor sanitation conditions, these practices have the potential to increase the spread of vector-borne diseases and increase the burden of work for women, who are the primary family caregivers.

The improvement of water and sanitation, especially in rural areas that are less well-served, provides positive impacts across multiple sectors and is generally regarded as an excellent investment. However, several additional guidelines should be considered prior to the implementation of WASH rehabilitation activities:

- Completion of studies analysing the economic and environmental viability of the proposed interventions.
- Compliance with Build Back Better guidelines established for water resource management infrastructure (i.e. which types of activities contribute to safe drinking water and sanitation) and concerted information provision activities to communities in which the infrastructure instalments are sited: this is to mitigate ongoing misconceptions that dams and spillways contributed to the severity of the flooding.
- Implementation of the groundwater law drafted by the Ministry of Construction and the development and roll-out of additional regulations and oversight to prevent the over-extraction of groundwater.

- Alignment with Disaster Management plans and the consideration of the predicted effects that el Niño will have on the climate.
- Alignment and Coordination with ongoing projects such as the DRD-JICA project for the improvement of equipment and materials for deep well construction and water quality analysis in the Central Dry Zone.
- In areas where there are lower rates of access to safe drinking water and sanitation, such as in Rakhine State, the development of community infrastructure must be coordinated with health activities and paired with hygiene promotion and health marketing interventions such as the “4 Cleans” campaign.
- Seasonal water scarcity is a particular challenge in areas such as the Dry Zone and Rakhine State. Adaptations such as rainwater harvesting and small community dams should be considered to mitigate this seasonal lack of water availability.

### **1.2.3 Build comprehensive WASH policies, standards and regulations**

Myanmar enjoys abundant water resources with significant coastal access, groundwater and four major rivers which allow for irrigation and hydropower generation. Only about 10% of the total water resources available to the country are utilised, mostly for irrigation. However, the availability of water is extremely variable: with 80% of fresh water flows occurring during the May-October monsoon period and the remainder occurring in the November-April dry season. Hydrological evidence suggests that a series of deep and shallow aquifers lie under the Ayeyarwaddy Delta and could be developed to irrigate a large portion of the land in that area, especially during the dry season. Since 1988, the Government has made large-scale efforts to construct dams for hydropower and irrigation; however, less than 5% of its 40,000 megawatt hydropower potential is developed.

Responsibility for the management and maintenance of public WASH systems is currently shared between the Department of Rural Development of the Ministry of Livestock, Fisheries and Rural Development, Department of Public Health of the Ministry of Public Health and the Department of Irrigation of the Ministry of Agriculture and Irrigation.

The WASH Sector has recently been restructured and is in need of comprehensive policies, standards and regulations. And though it is recognised that recovery activities are time-sensitive and their swift implementation is to be prioritised, lasting changes to the management and oversight of the WASH Sector is expected to be undertaken over a number of years.

According to the African Development Bank, integrated water resource requires proper coordination of activities in WASH subsectors to effectively address multi-sector, interrelated issues such as health and environmental problems, multi-purpose hydropower projects. In order to do this, the development of WASH policies is advised to account for:

- Water supply, sanitation and health
- Protection of catchment areas erosion control
- Sustaining biodiversity
- Environmentally-sound construction of dams and reservoirs
- Involuntary resettlement
- Sustaining marine and coastal environments
- Drought and water resource scarcity
- Water conservation

Prior to the drafting and adoption of integrated water resource management policies, the WASH Sector is to assess current practices and regulations and identify a range of institutional, technical, economic, environmental and social issues that should be addressed by a comprehensive WASH policy.

Institutional considerations include demarcating the roles and responsibilities of different government entities, government-linked companies and the private sector in the development and management of water resources. Standards should also be established for the efficient operation of water systems and their adequate maintenance. Additionally, the decentralisation of the management of water resources should be considered, but must also account for the fact that hydrological boundaries mostly do not coincide with administrative ones. The WASH Sector should also seek to establish quality standards for drinking water, wastewater effluent and agricultural runoff by facilitating dialogue and seeking broad participation in the development and implementation of regulations.

Technical considerations include the possible separation of service provision from regulatory functions, provisions for the efficient operation of systems and adequate maintenance as well as the establishment of joint monitoring, information management and research functions. Economic issues relate mostly to the sustainable pricing of water resources and how best to improve service delivery to the poor who often pay more for their water supply than those with piped water.

Social considerations include the development of community-based approaches grounded in the willingness to pay and commitment to monitoring and maintenance of facilities. Additionally, behaviour change communication and education should also be considered as WASH often concerns very personal spheres of people's lives. Environmental considerations mostly relate to commitments to protect and conserve environmental resources and the reduction of adverse impacts: the environmental degradation of water resources and poverty are deeply linked.

#### **1.2.4 Develop and ensure establishment of robust community-led compliance monitoring mechanisms**

The successful implementation of WASH activities is reliant on complementary progress in a number of other Sectors, including Housing and Settlements, Health, Education and private sector development. Additionally, with reference to the table which consists of census data pertaining to only the targeted townships, WASH activities frequently require changes in the behaviours of affected populations, particularly those which have had historically-lower access to safe drinking water and sanitation and take into account both rates of access and the size of vulnerable populations.

State/Region	% of HHs WITHOUT improved drinking water	Population WITHOUT improved drinking water
Rakhine	72.18%	2,130,336
Ayeryawaddy	46.32%	2,631,144
Shan	42.27%	1,560,456
Yangon	37.83%	1,372,121
Mon	31.44%	387,853
Kayin	31.34%	471,510
Chin	29.97%	143,488
Bago	26.36%	1,282,890
Magway	23.14%	906,548
Mandalay	22.66%	426,822
Sagaing	18.79%	1,000,693
Kachin	18.45%	281,123

State/Region	% of HHs WITHOUT safe sanitation	Population WITHOUT safe sanitation
Rakhine	76.70%	2,263,780
Magway	31.57%	1,236,683
Kayin	31.09%	467,715
Shan	30.23%	1,116,107
Sagaing	28.43%	1,514,259
Mandalay	27.30%	514,246
Chin	25.44%	121,831
Ayeryawaddy	25.43%	1,444,425
Bago	25.34%	1,233,522
Mon	20.93%	258,220
Yangon	13.31%	482,628
Kachin	12.74%	194,064

It is for this reason that WASH activities specifically require additional thought and calculation in their implementation. This is to be supported by the development of specific monitoring mechanisms. The WASH Sector is to develop, in conjunction with other Sectors, key progress indicators to be monitored, including access to improved water sources and safe sanitation, incidence of open defecation, percentage of households without toilets and the adoption of safe hygiene and sanitation practices amongst affected communities. This monitoring is to be cross-referenced against health and morbidity statistics from the Ministry of Health to ensure that interventions are contributing to Outcome-level goals and objectives.

#### **BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 1.2**

	Description	Budget in million kyats
<b>1.2</b>	<b>Improved community access to safe water sources and appropriate sanitation facilities</b>	<b>33,644</b>
1.2.1	Provide disaster-affected persons with timely and dignified access to safe and appropriate WASH facilities	1,069
1.2.2	Rehabilitate damaged water systems in communities using BBB approach	30,000
1.2.3	Build comprehensive WASH policies, standards and regulations	1,075
1.2.4	Develop and implement robust compliance monitoring systems	1,500

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
1.2.1										
1.2.2										
1.2.3										
1.2.4										

## **OUTPUT 1.3 CHILDREN HAVE IMPROVED ACCESS TO SAFE AND CHILD-FRIENDLY LEARNING ENVIRONMENTS**

- 1.3.1 Cleaning of affected schools,**
- 1.3.2 Establishment of temporary learning spaces and**
- 1.3.3 Distribution of teaching and learning materials**

As a result of the floods and landslides, affecting 4,116 schools across 11 states and regions. Affected schools were closed for less than three weeks on average, affecting students' learning. Almost all affected schools resumed education after mud and water were cleaned from the building and immediate repairs made. This was due to the quick mobilisation of resources (MMK 200,000 per school) through township education offices. These funds were used to hire local labour to clean and repair schools as well as buy necessary construction materials; they also represented a source of much-needed income for affected communities. Humanitarian partners supported the provision of essential teaching and learning materials as well as the establishment of temporary learning spaces. All new schools should be more resilient to future disasters and ensure a better, more inclusive learning environment under ongoing educational reforms.

These emergency- and early recovery-phase activities, since completed, contributed to the swift reopening of schools; the Education Sector has now moved on to longer-term activities, including the reconstruction of destroyed schools. Schools which were more severely damaged identified alternative learning spaces in the community, additional support is required to ensure a minimum standards of education in flood-affected communities. These activities have been completed.

- 1.3.4 Survey affected schools and**
- 1.3.5 Revise standards and basic school designs to Build-back-better specifications**
- Develop and disseminate safe school guidelines**

In order to ensure that reconstructed schools contribute to increasing the resilience of affected communities, the development and dissemination of basic school design to build-back-better specifications is proposed. Subsequent to a comprehensive survey of affected schools and their various geospatial and social attributes, the Education Sector and its Development Partners are to develop basic school designs that can be adapted to each specific context.

It was additionally in the PFLNA that resilient school buildings with improved school designs would involve a 15-30% increase in unit cost per school; better learning environments in the context of ongoing education reforms would involve a 25-30% increase in the total school construction. New considerations include disaster-resistance and resilience, improved WASH facilities, separate toilets for boys and girls, new classrooms for kindergartens, improvements to accessibility for persons with disabilities and provision for teachers' rooms.

- 1.3.6 Reconstruct damaged/destroyed schools, including WASH facilities and**
- 1.3.7 Provision of textbooks and other learning materials and school furniture**

The Education Sector should coordinate with the Housing Sector, which is ultimately responsible for settlement planning and the maintenance of Build Back Better Guidelines to plan the construction of the 213 schools which were destroyed and the 430 which were structurally damaged.

The reconstruction of damage and destroyed schools should take into account environmental and climatic factors as well as student and teacher preferences into their design. Additionally, severely-affected schools should also be provided with learning materials and furniture to replace those lost in the flooding and landslides.

#### **1.3.8 Develop and mainstream DRR into curriculum,**

#### **1.3.9 Organise seminars on DRR and resilience in education and**

#### **1.3.10 Risk mapping and school preparedness plans**

Recovery in the Education Sector needs to go beyond infrastructure alone. It should include the mainstreaming of disaster education in ongoing basic education curriculum reform and should include teacher education and trainings; capacity development of education officials at Union, regional and local levels' capacity development of PTAs; and strengthening of school disaster management capacity with the active participation of children. Improvements to the disaster management capacity of the Education Sector should be coordinated with and contribute to the national DRR framework, be fully mainstreamed in to the National Education Sector Plan and take into consideration other actors in the Education Sector such as the Ministry of Religious Affairs, Ministry of Border Affairs and the Ministry of Science and Technology so that future disaster responses may be more coordinated.

The Education Sector is to work with the Ministry of Social Welfare, Relief and Resettlement to development and mainstream DRR into school curriculums, organise seminars on DRR and resilience in education and undertaking a comprehensive risk mapping of schools and facilitate the development of school preparedness plans as part of wider, community-based preparedness plans.

#### **1.3.11 Train teachers and students in life skills and psychosocial support**

The distress caused by the floods and landslides threatened children's psychosocial well-being across all the affected areas, as well as that of their teachers, caregivers and families. To alleviate their stress and tension and support recovery, it is critical that the Education and Social Protection Sectors collaborate to provide psychosocial support for children in and out of schools. The development of life skills and psychosocial support training modules is proposed to help students and teachers in managing stress and tension.

Additionally, the provision of life skills and psychosocial support is to be coordinated with the planned development of a basic education curriculum to address 21st century skills. The Ministry of Education will develop the National Education Sector plan for the next five years (2016-2021) to continue addressing major challenges related to equitable access, inclusion and quality of learning.

#### **1.3.12 Outreach to households with children out of school and**

#### **1.3.13 Education stipends to households for children out of school**

Only 25% of the flood-affected townships have more than 70% of children attending school. Worryingly, a similar proportion of townships have more than 10% of children who have never attended school; with the most extreme cases in Shan State where only 24.8% of children in Mongkhet having ever attended school. Alone, the rehabilitation of all flood-affected education infrastructure and the implementation of school-based support would, at most, provide access for only 67% of children in these areas. There is also a striking overlap between the townships which have the highest rates of children never having attended school and those with the highest proportion of residents without any type of identification document.

Collaboration with the Social Protection Sector and its plans must be strengthened to ensure that students who drop out or at risk due to economic hardship and disaster-induced migration are provided with incentives, stipends, or other support to continue their education. The identification of at-risk children will also help in mitigating the adoption of negative coping mechanisms and other protection issues such as early marriage, child labour, trafficking and gender-based/domestic violence. This activity should be coordinated with the implementation of household-level assistance in the affected area, especially the provision of livelihood support and Cash-for-Work.

Barriers which cause children to stop attending school have been well-documented and mostly revolve around economic concerns; though primary, middle and high school are free, households typically face other challenges such as transportation costs and the need for additional farm labour. Furthermore, affected households in Bago, Chin, Magway and Rakhine all reported reducing health and education expenditures in response to income and food security constraints caused by the flooding. The actual rates of non-attendance are likely to have increased from the pre-disaster rates documented below:

Education Indicators, various – data from the 2014 Census and MoE 2015					
State/ Region	Township	% of population 5-17 Attending School	% of population 5-17 NOT Attending School	% of population 5-17 NEVER Attended School	Damaged/Destroyed schools [desc.]
Rakhine	Buthidaung	60.2	17.9	21.9	143
Rakhine	Maungdaw	53.6	17.6	28.8	87
Rakhine	Mrauk-U	62.4	26.8	10.8	83
Ayeyarwady	Thabaung	66.6	25.5	7.9	75
Rakhine	Minbya	62.9	25.0	12.2	69
Rakhine	Kyauktaw	67.5	23.1	9.4	60
Rakhine	Ponnagyun	66.9	23.6	9.5	47
Rakhine	Rathedaung	68.8	21.7	9.5	39
Rakhine	Pauktaw	58.6	29.4	12.1	37
Bago	Letpadan	63.5	28.3	8.2	19
Rakhine	Ann	68.0	18.4	13.7	17
Sagaing	Kale	72.2	20.9	6.9	17
Rakhine	Sittwe	61.8	26.2	12	15
Chin	Paletwa	73.7	9.3	17.1	12
Chin	Matupi	83.8	5.8	10.4	12
Yangon	Taikkyi	62.0	29.4	8.7	11
Magway	Sidoktaya	70.7	22.8	6.4	11
Chin	Hakha	82.2	11.1	6.7	11
Bago	Minhla	62.4	30.7	7	9
Ayeyarwady	Yegyi	64.1	28.6	7.2	8
Chin	Tonzang	75.5	14.2	10.3	8
Magway	Aunglan	58.2	33.8	7.9	7
Chin	Tedim	77.3	14.1	8.6	7

As an additional note, Kayin and Shan are home to extremely low rates of educational attainment; in particular, Mongkhet, Matman, Tangyan, Monyawng and Mongping all have populations where more than 80% of persons above 25 do not have any education attainment. However, as Kayin and Shan together represent less than 2% of the overall damage from the flooding, it is suggested that development actors explore their issues in greater depth as these two states are likely to be precluded from any major recovery interventions.

#### **BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 1.3**

	Description	Budget in million kyats
<b>1.3</b>	<b>Children have improved access to safe and child-friendly learning environments</b>	<b>96,754</b>
1.3.1	Cleaning of affected schools	2,000
1.3.2	Establishment of temporary learning spaces	500
1.3.3	Provision of textbooks and other teaching and learning materials and school furniture	2,000
1.3.4	Survey of affected schools	500
1.3.5	Revision of standards and basic school designs to BBB specifications and disseminate safe schools guidelines	-
1.3.6	Reconstruct damaged/destroyed schools, including WASH facilities	74,154
1.3.7	Develop and mainstream DRR into curriculum	6,000
1.3.8	Organise seminars on DRR and resilience in education	50
1.3.9	Risk mapping and school preparedness plans	4,500
1.3.10	Train teachers and students in life-skills and psychosocial support	50
1.3.11	Outreach to households with children out of school	2,000
1.3.12	Education stipends for households with children out of school	5,000

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
1.3.1										
1.3.2										
1.3.3										
1.3.4										
1.3.5										
1.3.6										
1.3.7										
1.3.8										
1.3.9										
1.3.10										
1.3.11										
1.3.12										

## **OUTPUT 1.4 IMPROVED COMMUNITY ACCESS TO ADEQUATE AND APPROPRIATE HEALTH SERVICES AND FACILITIES**

The primary effects of the disaster on the Health Sector include:

- Disruption of access to and provision of healthcare due to the physical damage caused by the flooding and landslides on health facilities. 24 rural health centres were totally damaged, more than 200 facilities were partially damaged, of which 21 are township and station hospitals. Access to health services was further disrupted as many roads, bridges and means of transportation were damaged, making travel to the remaining health facilities time consuming and difficult. The 24 destroyed rural health centres were primary healthcare facilities, responsible for the provision of essential services.
- Disruption of normal routines and lives of affected persons affected their prioritisation of health-seeking behaviours, increasing health risks
- Damage to water, sanitation and other key infrastructure facilities as well as the crowding and unsanitary conditions of displaced communities increased the risk of infectious diseases.

According to the Ministry of Health, access to and utilisation of health services is still inadequate. This is due to geographical, financial and cultural barriers. For instance, though the proportion of births attended by skilled health personnel was 74.8% for the country, rates were much lower in Chin (53.8%), Rakhine (54.3%) and Ayeyarwaddy (67.4%). In addition, awareness of good health practices was also inadequate. Community involvement in public health programmes, child nutrition, infectious disease prevention and control programmes need to be improved.

In the development of the National Recovery Plan, the Ministry of Health has also considered the numerous pre-existing challenges in the Health Sector which were exacerbated by the flooding and landslides. These include difficulties in accessing and providing healthcare in remote areas; lack of rural health infrastructure and service coverage; uneven implementation of Health Sector reform, with insufficient provision of pharmaceutical and medical supplies to remote areas; and high out-of-pocket payments though health services provided by government facilities are generally free of charge. Total health expenditures as a percentage of GDP in Myanmar (2%) lags far behind its peers in ASEAN, where rates range from 2.7% on Laos to 6.8% in Vietnam. Additionally, the governments of other countries in ASEAN also contribute far more the total health expenditures than Myanmar (which covers 13% of total health expenditures), where public health expenditures form 30-40% of total health expenditures.

### **1.4.1 Provide disaster-affected persons with timely and dignified access to safe and appropriate Emergency Healthcare Services**

**Provide emergency healthcare services,  
Conduct disease prevention and control,  
Conduct Immunisations and  
Implement Early Warning and Alert System (EWARS)**

To address the immediate needs, essential healthcare services were provided to the affected population through a combination of mobile clinics, outreach services, immunisations and referral mechanisms. These interventions have been completed.

Additionally, persons in flood- and landslide-affected areas faced increased health risks and vulnerabilities. 6 diseases outbreaks were reported through the Early Warning and Alert system (EWARS) in the disaster and post-disaster phase, all of which were controlled by the coordinated efforts of the Ministry of Health, the community and humanitarian partners.

**Conduct nutrition promotion and screening,**

**Treat Severe Acute Malnutrition and**

**Prevent Micronutrient deficiencies and other causes of malnutrition**

Damage to crops, roads, housing and infrastructure affected access of families and children to adequate, nutritious food and safe environments where mothers and can feed their children. It had been anticipated that the nutritional status of children in the affected areas would deteriorate, especially in areas of Chin, Rakhine and Magway which had high pre-existing levels of malnutrition and chronic vulnerabilities. The Ministry of Health (MoH) estimates that there has been an increase in the caseload of children suffering from acute malnutrition; the MoH detected 3,172 additional cases of children suffering from acute malnutrition in the flood-affected areas. Micronutrient supplies were distributed and nutrition promotion conducted to prevent malnutrition. These activities have been completed.

**1.4.2 Conduct health and nutrition education and training and**

**1.4.3 Conduct Hygiene and Sanitation Promotion**

The engagement of affected communities in hygiene promotion, nutrition and health education interventions are key a prerequisite to many areas in which there was low pre-existing access to safe sanitation and improved water sources, especially Rakhine. This activity is to be coordinated with the provision of WASH community block grants.

The implementation of health and nutrition education as well as hygiene and sanitation promotion is to occur in coordination with the main healthcare providers such as private practitioners, traditional healers, health assistants, midwives and Voluntary Health Workers (including auxiliary midwives) and involve a range of stakeholders in communities including schools and health facilities. Simplified versions of guidelines for hygiene promotion and nutrition education should be developed and disseminated to all affected communities.

**1.4.4 Reconstruct and Repair damaged health facilities and**

**1.4.5 Replenish medicine and equipment in health facilities**

Recovery priorities include restoring the functionality of health systems and building the capacity for effective service delivery. When restoring the health functions in disaster-affected areas, designs and construction practices should be aligned with MNBC-2012 as well as any other Build Back Better Guidelines developed by the Ministry of Construction.

The reconstruction and restoration of health facilities must be based on careful planning and site selection to reduce exposure to multi-hazard risks as well as align with settlement planning in the affected areas. The storage and placement of medical supplies and pharmaceuticals must also be considered: the PFLNA suggest siting storage facilities at higher elevations are preferred.

This will be complemented by the provision of the necessary equipment, including medicine, instruments and equipment, micronutrient supplies, IEC materials and reproductive health supplies. However, though the reconstruction and repair of damaged health facilities is vital, success in the Health Sector is dependent on other longstanding challenges facing the country, including weak transportation networks, insufficient health and social spending and the lack of modern technology.

Recovery interventions in the Health Sector must be aligned with ongoing reforms as well as the planned long-term increases in social and health spending under Myanmar Health Vision 2030 in order to address some of the most common complaints surrounding the provision of and access to health services. These include insufficient medical supplies, high out-of-pocket expenditures (which still hover at around 60% of healthcare costs), long waits and high transportation fees.

#### **1.4.6 Prepositioning of medical supplies and mobile health teams and 1.4.7 Establishment of Public Health Emergency Operations Centres**

Given the risks arising from disaster impacts, as part of its preparedness measures, the Ministry of Health will preposition medical supplies and medical health teams in order to increase the speed, efficiency and coverage of its emergency health services in future disasters.

Additionally, the establishment of State/Regional Public Health Emergency Operations Centres is planned; they will assist in the conduct of epidemiological surveillance of the population, engage in infectious disease prevention and control as well as be coordinated with community outreach to vulnerable groups. They will also be responsible for improving the coordination mechanisms available at the township level for the provision of health services.

#### **1.4.8 Construct Standard Hospitals**

As part of its long-term plans to increase the coverage and availability of healthcare services, the Ministry of Health will undertake the construction of Standard Hospitals across the affected areas. These hospitals will strengthen the provision of healthcare services to those in underserved areas, particularly cases which exceed the capacity of the rural health centres and require specialised skill and care.

The construction of Standard Hospitals is to be conducted in line with MNBC-2012 and any other relevant Build-Back-Better Guidelines. The priorities and opinions of healthcare staff as well as community members should be sought on the design and construction of these hospitals to ensure that they are aligned with needs as well as planned and existing settlements.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 1.4**

	Description	Budget in million kyats
<b>1.4</b>	<b>Improved community access to adequate and appropriate health facilities</b>	<b>33,135</b>
1.4.1	Provide emergency healthcare services	5,389
1.4.2	Conduct health and nutrition education and training	750
1.4.3	Conduct Hygiene and Sanitation Promotion	750
1.4.4	Reconstruct and repair damaged health facilities	2,609
1.4.5	Replenish medicine and equipment in health facilities	18,502
1.4.6	Preposition medical supplies and mobile health teams	2,122
1.4.7	Establish public health emergency operations centres in relevant states/regions	214
1.4.8	Construct standard hospitals	2,800

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
1.4.1										
1.4.2										
1.4.3										
1.4.4										
1.4.5										
1.4.6										
1.4.7										
1.4.8										

## OUTPUT 1.5 FLOOD- AND LANDSLIDE-AFFECTED COMMUNITIES HAVE IMPROVED LINKS WITH SURROUNDING COMMUNITIES AND THE REST OF THE COUNTRY

Transportation and ICT infrastructure are of critical importance to the country's economic and social development, especially when considering the current state of access and mobility in Myanmar. 40% of the country's population (approximately 20 million people) live in villages without access to the most basic of transport links: an all-season road. This isolation limits access to markets and employment opportunities. Without transportation links, agricultural productivity remains low, whilst access to health and education services is limited.

The road network density of Myanmar is 5.6 km per 100 km<sup>2</sup>, ranking 86th out of the 90 countries for which data exists in the World Bank's Development Indicators. In comparison to other countries in the region with similar population densities, Myanmar's standing is unfavourable: Brunei's road density is 54.2 km/100km<sup>2</sup>, Malaysia's is 47 km and Cambodia (the only country in ASEAN poorer than Myanmar) has 21.9 km/100km<sup>2</sup>.

The transport sector and road access in Chin and Rakhine States have been identified as critical to recovery efforts by their respective state governments and key construction efforts include the Kale-Falam-Hakha-Gangaw Corridor, which will reach some of the poorest and most-severely-affected areas and link Chin State to Tamu and India, as well as the Minbu-Ann and the Ngathaichaung-Gwa road construction projects.

However, in reference to the table below, the Union-wide needs for road network development are much more diffuse: though the Kale-Falam-Hakha-Gangaw Corridor will span both Sagaing and Chin, the number of people it will service in each state will be quite different. Each kilometre of road in Sagaing currently accommodates 1,157 people, as opposed to 243 in Chin. The extreme poverty of Chin State does, however, add some urgency to the need for infrastructure investment there.

Summary Indicators on Access, Damage and Poverty – data from the 2014 Census, MoC 2014 , MoSWRR 2015 and IHLCA 2010					
State/Region	Population Density (ppl/km <sup>2</sup> ) [desc.]	Residents per km of road	Road density (Km of Road per 100 km <sup>2</sup> )	Direct Economic Losses in million Kyat	Poverty Incidence
Yangon	586	5,777	10.042	11,413.42	0.161
Mandalay	194	2,647	5.732	1,040.85	0.266
Mon	172	2,886	6.03	0.00	0.163
Ayeryawaddy	176	2,480	7.248	24,319.59	0.322
Bago	123	2,212	5.555	13,183.84	0.183
Rakhine	88	1,769	4.956	44,981.29	0.435
Magway	91	1,163	7.851	37,018.52	0.270
Sagaing	54	1,157	4.793	35,520.74	0.151
Kayin	47	777	6.069	408.44	0.174
Shan	29	409	7.045	2,870.44	0.270
Kachin	16	387	4.186	1,370.70	0.266
Chin	13	241	5.475	28,221.17	0.733

The transport situation in Rakhine is slightly more straightforward: though it sits firmly in the middle of the pack in terms of road network and population density, the massive economic losses there make the restoration of access and infrastructure a clear priority for recovery programmes. In contrast, Yangon – which has less than 3% of the total disaster impact – has the poorest ratio of population density to road network density; undertaking road improvements there would benefit the greatest number of people but would also further concentrate economic growth there.

The link between investment in transport infrastructure and increases in economic growth and productivity is well-supported by empirical evidence; additionally, the IMF has demonstrated that both the quantity and quality of infrastructure are important factors for the reduction of income inequality. However, it is often difficult to redirect resources away from areas likely to generate income and prosperity and contribute to the development of the country as whole. Budget constraints often limit the scope of public investment in social and economic infrastructure in poorer, more isolated areas.

A solution posited and explored in more detail in the section on Area-Based Approaches on page 111 is to support the recovery of rural and remote areas through the direction of infrastructural investments towards towns and secondary cities which would then act as centres for:

- Demand for agricultural products
- Distribution of good and services to rural areas
- Growth and consolidation of rural non-farm activities
- Attracting rural migrants, thereby decreasing pressure on larger urban centres

Productive and protective investments in these areas will accelerate poverty reduction in an economically-viable manner. The infrastructure rehabilitation activities proposed in this section should also align closely with regional development, poverty alleviation plans, the National Transport Development Plan as well as with the livelihoods interventions under Outcome 2.

### **1.5.1 Repair and upgrade highways, state/regional roads and bridges,**

### **1.5.2 Repair and upgrade rural roads and**

### **1.5.3 Repair and upgrade rail networks**

Recovery priorities for the transport sector include the completion of repairs and upgrades on highway roads and to improve rural accessibility through the repair of roads and bridges. The disaster has worsened the normally poor accessibility in rural areas, resulting in longer travel times for vulnerable rural populations. The restoration of connectivity to essential services (such as hospitals, schools and markets) and to major commercial centres will benefit the entire population but particularly those in isolated rural communities.

Myanmar's public road network comprises of 157,059 km of roads across 14 states and regions, 34,724 km (22%) of which is paved. The administration of the road network is the shared responsibility of the Ministry of Construction (highways, expressways, state/regional roads), the Department of Rural Development and the Ministry of Border Affairs (rural roads) as well as township development committees which manage urban roads.

Damages to the transport sector resulted from inundated pavements and the washouts of bridges and culverts. 32 key highways links were temporarily severed in seven states; all connections were repaired by late September 2015. The most damage occurred in Chin

State, where numerous landslides destroyed numerous roads passing through the state's hilly terrain. According to the PFLNA, a likely delayed effect of the inundation is the premature failure of saturated road pavements – making their replacement and upgrading is necessary. It was further noted that whilst damages to the transportation sector were comparatively low, in comparison with international standards, due to a combination of low unit rates and low standards of construction.

The Transport Sector is to contribute to the development of Build-Back-Better Guidelines, particularly with regards to standards and processes for the repair and rehabilitation of roads and railways. Given Myanmar's significant exposure to disaster risk, reconstructed transport infrastructure should use sound engineering designs that will enhance resilience to natural hazards. Updated design and construction standards are required for various purposes and should be prepared and undertaken as part of the National Recovery Programme:

- Guidance on soil-retaining structures
- Ensuring better and more extensive draining
- Protecting embankments, bridge abutments and approaches
- Increasing the levels and freeboard for bridges

These activities are currently ongoing. Of the 1,012 road sections currently planned for repair and reconstruction, 314 have been completed: 129 in Chin State, 78 in Sagaing, 63 in Rakhine, 37 in Ayeyarwaddy and 7 in Bago. Additionally, 299 bridges have also been completed across the affected areas and the repair/reconstruction of an additional 533 bridges are planned or are ongoing. However, the restoration of damaged roads and bridges is only one part of the larger recovery and reconstruction plans which will seek to improve access across the affected areas.

However, it should be noted that increasing the road network density alone is not sufficient to increase access to underserved populations. Recovery Implementers should take into account transport service providers and their capacities and facilitate the formation of links between communities and private sector transport providers.

#### **1.5.4 Repair and Restore Communications Infrastructure**

According to the PFLNA, the telecommunications industry is characterised by competition and fast growth in network coverage and service uptake. Mobile penetration increased from under 10% in 2012 to over 60% in September 2015 and the prices for SIM cards fell from USD 250 to USD 1.50 in the same period. Telecommunications is one of the major infrastructure sectors that has seen significant foreign direct investment, receiving over USD 3 billion, and is responsible for the creation of direct and indirect jobs.

- Bury Telecommunications Cables
- Develop multiple route redundancies for backhaul network
- Improve base transceiver stations (BTS) and increase
- Increase back-up power at BTSEs and other communications facilities
- Develop measures to mitigate traffic congestion on communications networks
- Construct critical tower infrastructure
- Repair and improve transmission lines and towers

Though the damage to telecommunications infrastructure was substantial. However, due to the large existing and planned external investments in the ICT sector, many opportunities

exist for public-private partnerships and closer cooperation. Efforts will be enhanced by coordination and cooperation between the Ministry of Communications and Information Technology, its Post and Telecommunications Department, Myanma Post and Telecommunications and private operators. The long-term recovery goal is to rebuild and establish disaster-resistant and future-proof communications infrastructure and services that will serve the needs of a digital Myanmar. In line with this, the approach to recovery should ensure increased investments in the telecommunications sector and the establishment of a resilient public broadcast sector.

#### **1.5.5 Repair transmission lines and towers**

#### **1.5.6 Repair power stations, substations and associated buildings**

#### **1.5.7 Repair generators**

The development of electricity infrastructure is correlated with income: GDP per capita (in the affected areas) increased by USD 2.37 for every 1% increase in the proportion of the population which had access to electricity. In addition, many of the planned improvements to livelihoods and increases to access to financial services are at least partially reliant on electrification: whilst diesel pumps will be provided alongside irrigation infrastructure in rural areas, long-term sustainable solutions are necessary to power the planned improvements in rural labour productivity.

The reconstruction and repair of damaged electricity infrastructure is to take into account the ongoing rural electrification efforts, already underway between the Ministry of Electricity and Energy, the World Bank and JICA. Special attention is to be paid to leveraging of recovery resources to increase off-grid generation potential. Current project designs include co-payment systems involving communities, the government and rural development banks. However, in light to the widespread damage and losses to the earning potential of many affected people, Recovery Implementers might consider a combination of grants and loans or deferred payments in affected communities.

These interventions are to be coordinated with Output 2.4, which seeks to finance cooperative lending to micro-, small- and medium-sized enterprises and strengthen links between businesses, private sector association and financial service providers. Landowners whose holdings have the potential for microgeneration, including minihydro facilities, should be clearly identified and linked to financial service providers.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 1.5**

	Description	Budget in million kyats
1.5	<b>Flood-affected persons have improved links with their surrounding communities and the rest of the country</b>	<b>262,882</b>
1.5.1	Repair and upgrade highways, state/regional roads and bridges	64,283
1.5.2	Repair and upgrade rural roads and bridges	72,296
1.5.3	Repair and upgrade of railway bridges, embankments and buildings	13,184
1.5.4	Repair and Restore Communications Infrastructure	106,255
1.5.5	Repair transmission lines and towers	654
1.5.6	Repair power stations, substations and associated buildings (including hydropower)	5,794
1.5.7	Repair generators	416

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
1.5.1										
1.5.2										
1.5.3										
1.5.4										
1.5.5										
1.5.6										
1.5.7										



*photo credit: Ministry of Agriculture, Livestock and Irrigation*

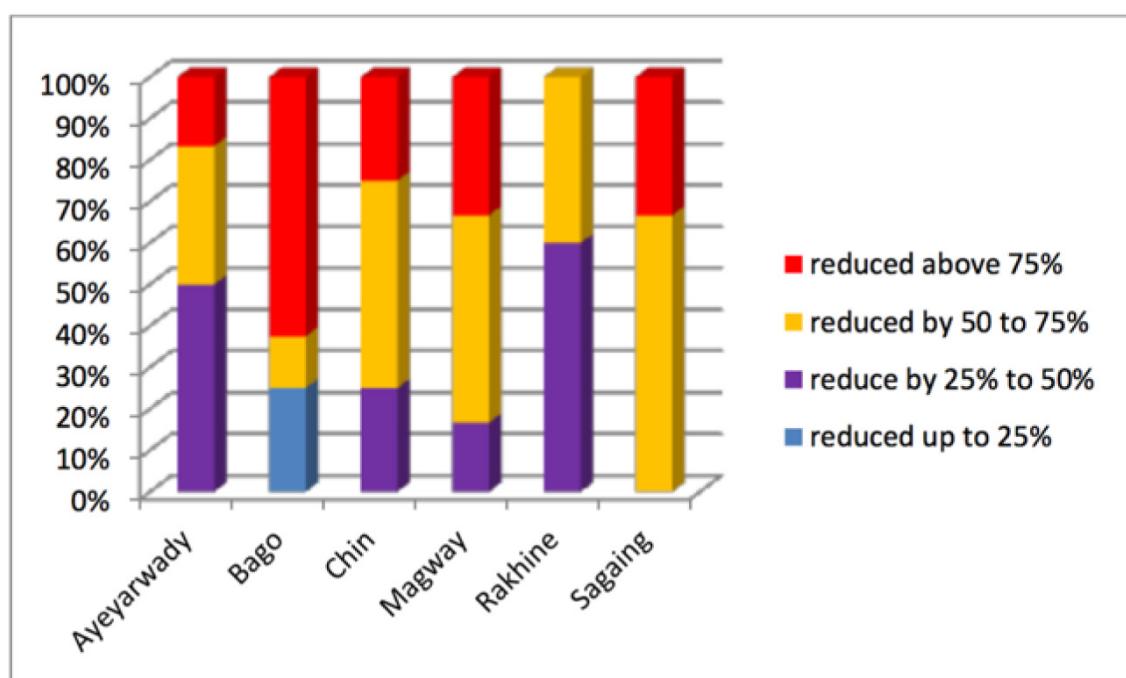
## OUTCOME 2

# STRENGTHENED LIVELIHOODS AND INCREASED ACCESS TO CAPITAL AND WORK OPPORTUNITIES

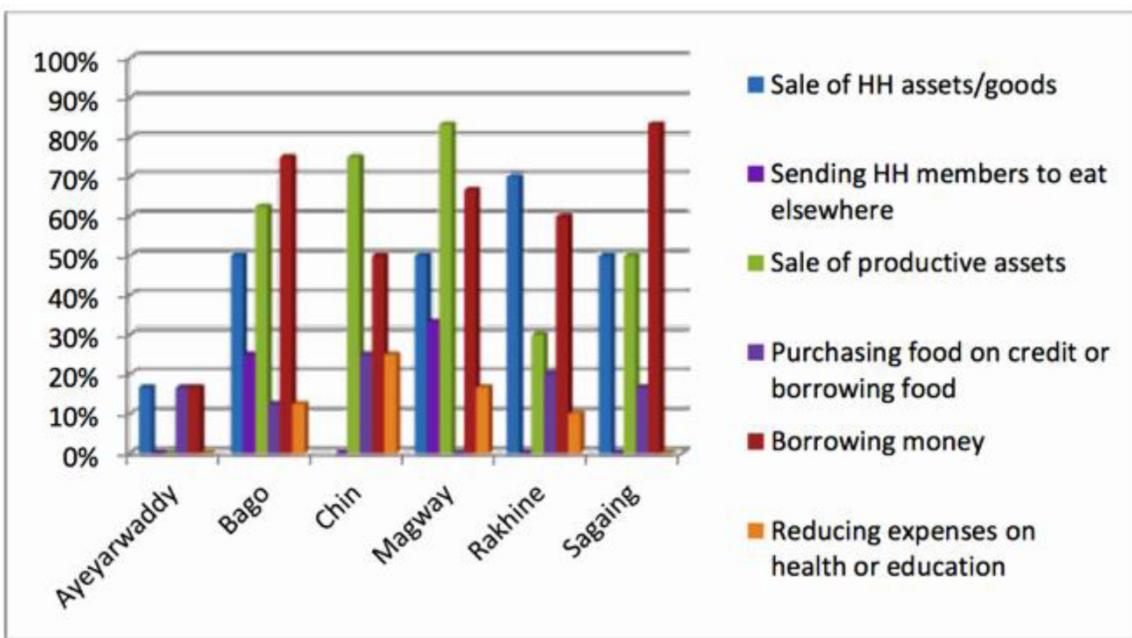
## OUTPUT 2.1 ADOPTION OF HARMFUL COPING MECHANISMS AMONGST FLOOD-AFFECTED COMMUNITIES IS MITIGATED

### CASH-FOR-WORK AND CASH GRANTS

According to the PFLNA, the agriculture sector experienced the heaviest flood-related losses in workdays, losing 7.2 million workdays out of the Union-wide total of 9.4 million. The loss of casual agricultural jobs – the most important income source for poor households – formed the majority of the lost agricultural workdays. The then Ministry of Agriculture and Irrigation and the then Ministry of Livestock, Fisheries and Rural Development, with humanitarian and development partners, carried out a joint food security and agriculture assessment in the most affected areas in Ayeyarwaddy, Bago, Chin, Magway, Rakhine and Sagaing. With the exception of some parts of Bago and Rakhine, expected reductions in yield are almost uniformly above 50%:



Correspondingly, the assessment also recorded an increase in the employ of negative coping mechanisms: the chart below details the percentage of villages in each assessed area reporting increases in livelihood-based coping mechanisms. The sale of productive assets and borrowing money (especially at high interest), though necessary for poor households to meet their short-term consumption needs, are expected to have long-lasting impact on a household's capacity to recover. Other negative coping mechanisms include children leaving school to work, borrowing with high interest, restricting food intake and in some severe cases, human trafficking.



Furthermore, affected households in Bago, Chin, Magway and Rakhine all reported reducing health and education expenditures in response to income and food security constraints caused by the flooding. It was also reported that Chin State saw a marked increase in the use of food-based coping mechanisms, including relying on less expensive foods, reducing the number of meals and reducing portion sizes whereas the majority of villages in Chin said that had not resorted to such measures prior to the disaster. Additionally, twice as many women as men reported reducing their food intake and eating smaller portions.

Cash-for-Work (CFW) interventions are intended to halt and reduce the adoption of negative coping mechanisms, which might significantly erode a household's capacity to recover: the reduction of food intake will affect the nutritional status of the household as well as work productivity and the sale of productive assets such as seeds and farming implements will greatly increase the amount of time it takes for a household to recover from the disaster.

The main means of livelihoods for more than 65% of rural households is casual labour. Due to their limited to means of production (especially land) and the insecure and inconsistent incomes sources, casual labourers as well as others whose means of livelihood has been greatly damaged or destroyed should be targeted for Cash-for-Work. However, the provision of short-term employment for vulnerable persons until they can be reabsorbed into the workforce is not the only intended consequence of the implementation of CFW activities: they are also expected to inject cash into the local economies of poor and heavily-damaged areas as well as assist the restoration of local infrastructure.

### **2.1.1 Identify Target Communities and Community and Public Assets for Cleaning, Repair and Rehabilitation**

CFW interventions have been planned for 825,254 households across the affected areas. Targets for beneficiary households were developed based on a State/Region's share of disaster damage and the number of people affected by the disaster in each area. Additionally, as will be discussed later, targets have been broken down by tier as well, to aid prioritisation:

<b>State/Region</b>	<b>Target Population</b>	<b>Target HHD</b>	<b>AVG HHD size*</b>	<b>Target HHD Tier 1</b>	<b>Target HHD Tier 2</b>	<b>Target HHD Tier 3</b>	<b>Budget Total [desc.]</b>
Rakhine	995,824	221,679	4.49	168,902	52,777	-	98,984,634,555
Ayeyarwaddy	615,723	156,550	3.93	70,756	70,756	20,788	53,465,058,356
Chin	433,374	88,011	4.92	69,312	18,699	-	40,710,179,443
Sagaing	509,654	186,415	4.71	29,297	39,105	39,537	30,132,527,671
Bago	450,220	110,073	4.09	5,571	36,432	68,071	20,276,525,290
Magway	236,168	57,896	4.08	12,578	39,105	6,214	16,728,794,289
Yangon	134,994	32,453	4.16	12,969	6,819	12,664	9,745,938,055
Kachin	107,140	22,053	4.86	-	4,341	17,711	3,404,227,989
Mandalay	80,773	18,444	4.38	-	-	18,444	2,324,275,177
Shan	39,496	8,940	4.42	-	-	8,940	1,128,753,055
<b>Total</b>	<b>3,602,917</b>	<b>824,192</b>	<b>4.23</b>	<b>369,385</b>	<b>262,438</b>	<b>192,369</b>	<b>276,900,914,173</b>

**\*In affected townships**

State and Region Governments, based on the 80 priority townships, are to identify and develop village-level allocations for the provision of Cash-for-Work (CFW). In the selection and prioritisation of communities, State and Region Governments should consider:

- Communities with large amounts of damage to public and private assets
- Communities where the means of livelihood have been greatly affected by the disaster
- Communities which are especially poor
- Level of interest and availability of labour in targeted communities

The specific targeting criteria for villages should be discussed and developed in tandem with local authorities so that they may then, in turn, inform communities about why or why not they were selected.

Once community-level targets have been established, local administrators, community members and representatives from the Department of Rural Development should undertake a review of the debris removal, construction and repair needs of affected communities, particularly activities which will not be addressed by larger, infrastructure and construction interventions which still require unskilled labour. Activities should then be prioritised by affected community members and may include activities such as:

- Debris removal and community cleaning
- Restoring small access Roads
- Repairing/improving Small community dams and dykes
- Repairing/improving Water supply systems
- Schools Cleaning and Repair
- Cleaning and Repair of Health Facilities
- Neighbourhood Disaster Risk Reduction and site improvements

In areas where there is extended CFW support, communities may also consider the use of CFW to undertake community improvement activities such as solid waste management and the improvement of infrastructure to make them more resistant to disaster risks.

Whilst the activities eligible for CFW are quite broad and should be left up to communities, it should be noted that the repair/rehabilitation of private assets such as houses and agricultural land are not eligible. There are already other activities targeting those with destroyed houses and flood-degraded farmland; Cash-for-Work should be undertaken to repair and rehabilitate which everyone in the community can enjoy.

As discussed in the next section, not all households are intended to benefit from Cash-for-Work. However, it should be noted that all members of the community should be consulted on the repair and rehabilitation of community assets, not just the recipients of CFW benefits.

### 2.1.2 Implement Cash-for-Work

Of all household-level activities, Cash-for-Work (CFW) is intended to reach the largest number of people and will benefit almost 5 times as many households as housing repair and reconstruction activities. Due to this, the coordinated and large-scale implementation of beneficiary selection processes are necessary. However, in addition to the application of standard beneficiary selection processes (see page 114), additional standards apply to and will influence the selection of CFW beneficiaries.

Firstly, standards for daily wages for CFW have been set in alignment with the National Minimum Wage established in 2015:

MMK 3,600 per day of work

And there are two standard allowances provided for under the National Recovery Programme, each corresponding to different household sizes:

Households with 4 members or less: 10 days of work per month or MMK 36,000 per month  
Households with 5 members or more: 14 days of work per month or MMK 50,400 per month

CFW activities are intended to supplement, not supplant existing recovery activities in productive sectors; this is why the number of days of work a month eligible for CFW are limited to 10 days for households with 4 members of less and 14 days for households with 5 members or more. Village-level authorities are advised to allow for flexibility in the management of work schedules: subsequent to the identification of priorities for community repair and rehabilitation, communities should break down the work and divide it amongst themselves so that it does not overly impact their domestic and work obligations.

These standards have been based on recommendations from the Department of Social Welfare in its technical proposal for the provision of cash support. Additionally, each of the 80 priority townships have been assigned a tier corresponding with their share of the damage and losses as well as their average income. This has been taken into account in the duration of the provision of CFW support:

- Tier One: 12 months of cash-for-work support for beneficiaries
- Tier Two: 6 months of cash-for-work support for beneficiaries
- Tier Three: 3 months of cash-for-work support for beneficiaries

Every effort is to be made to include both the perspectives and different skills of men and women in this project. However, due to its physical nature, several households might qualify for support but ineligible to participate in activities or might not have able-bodied persons between the ages of 18-59. Other opportunities for the inclusion of people with disabilities or the elderly may also be considered; otherwise, these households should be unconditionally provided with the same benefits as other beneficiaries and receive them as a grant. Distributions of cash should occur monthly as the intention of CFW activities is to assist vulnerable households in meeting the living and consumption expenditures so that they do not engage in negative coping mechanisms; CFW benefits are intended to be spent, not saved.

CFW activities are not intended to replace the planned conditional cash grants to vulnerable households as part of its long-term increases in social spending. Instead, these short-term activities present an opportunity for the Government of Myanmar to test out large-scale cash distribution modalities.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 2.1**

	Description	Budget in million kyats
2.1	<b>Mitigate adoption of harmful coping mechanisms amongst flood-affected communities</b>	<b>285,820</b>
2.1.1	Identify community assets for cleaning, repair and rehabilitation	8,919
2.1.2	Provide Cash-for-Work and Cash grants for vulnerable groups and those unable to work	276,901

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
2.1.1										
2.1.2										

## **OUTPUT 2.2 INCREASED PRODUCTIVITY AND INCOME-GENERATION CAPACITY FOR FLOOD-AFFECTED HOUSEHOLDS INVOLVED IN AGRICULTURE**

847,741 acres of farmland, out of a total of 2,952,753 acres that were inundated across the country, have been destroyed – this amounts to 6.6% of the cultivated area in Myanmar. The total damages to crop production are estimated at MMK 389.5 billion or 1.1% of GDP. The high losses are the result of cyclone Komen's trajectory and timing: the flooding affected the main crop-growing regions in Myanmar during the peak of the monsoon production season.

Most farms in Myanmar are small in scale; the average size is 2-3 acres. The main cultivated crop is rice, which covers approximately two-thirds of the total area under cultivation. Other import crops include beans, pulses and oilseeds, which have become a major export crop. Paddy yields vary significantly across the country but are usually low because good-quality seeds are not widely available and farmers lack knowledge of good farming practices.

The World Bank and LIFT found that average wet season rice yields per hectare in 2013 were 2.4 tons in Sagaing, 2.8 in Ayeyarwaddy and 3.0 in Bago, indicating large yield gap between Myanmar other areas in the region such as central Thailand, where the average yield per hectare for conventional varieties was 3.8 tons and the Mekong Delta region in Vietnam where yields were between 6 and 7.5 tons per hectare.

In addition to the complexities of these pre-existing conditions, it is perhaps instructive at this stage to recall some of the long-term impacts on livelihoods from the response to cyclone Nargis. According to the five-years-on social impact monitoring report, in addition to the response being widely perceived as slow and problematic, there has no been real recovery and affected persons have become more vulnerable to environmental degradation and catastrophes.

Cyclone Nargis severely disrupted the agricultural cycle of debt, harvest and repayment. Many farmers assumed additional debt after the cyclone from a wide range of sources; however, due to the toxic combination of saltwater intrusion and the deaths of many draft animals, yields were much lower than before. Additionally, in order to meet their consumption needs, many farmers sold their paddy directly after harvest – instead of conserving a portion to sell later in the year – and consequently received much lower prices for their crops. There was widespread adoption of harmful coping mechanisms such as selling land and livelihood assets, reducing food intake and overborrowing.

With many farmers unable to repay their debts, creditors began either a) defaulting themselves, sparking a larger chain of defaults, b) seizing collateral and assets which further eroded household capacity to recover and c) refusing to lend, reducing access to much-needed credit and drove many farmers to assume higher-interest loans in order to meet their debt obligations.

Environmental degradation caused by the cyclone (primarily saltwater intrusion and riverbank erosion) was worsened by the fact that many farmers had to prioritise their consumption needs over reinvestment in livelihoods inputs. This reduced agricultural yields and crop quality, also allowing insects and other vectors to infest much of their land, causing productivity to fall even further. Paddy prices also fell as the quality of the crop was adversely impacted by the cyclone. The majority of those interviewed five-years-on were still struggling and their incomes have yet to rise above pre-Nargis levels.

Nargis was a fatal blow for many communities and their lack of recovery – five years after the event – underscores the severity of the long-term effects of environmental catastrophe. Insufficient short-term support spurred a cycle of negative coping mechanisms and the lack of long-term productive investments left affected persons with little ability to exit poverty and debt traps and no choice but to double down on unsustainable livelihood strategies that further degraded the environment.

The National Recovery Programme has sought to apply the lessons learnt from Nargis into its programme design. The proposed Cash-for-Work activities detailed in section 2.1 are designed to address the loss of income and increased post-disaster consumption needs of affected households as well as stem the sale of productive assets. However, Cash-for-Work is intended to be a short-term intervention, with a fixed lifespan. The proposed interventions in the Agriculture Sector have been designed to:

- Stabilise production by distributing/replacing inputs as well as addressing the effects of the environmental degradation caused by the flooding
- Improve the quality of monsoon rice through improved seed quality; optimised fertiliser and input use; and improvements to water resource management and irrigation infrastructure
- Aid the recovery of local economies, ease access to credit and improve farm productivity, laying the foundation for longer-term employment creation and inclusive growth. Proposed activities are mostly targeted at the household-level.

Special attention will be paid to the existing disparities between landless poor rural households, smallholder farmers and large landowners.

**2.2.1 Distribute paddy seeds to flood-affected households,  
2.2.2 Distribute seeds and seedlings for horticultural crops and  
2.2.3 Distribute compound fertiliser**

These activities are intended to address the large decreases in yield projected by the food security and agriculture assessment conducted by the Ministry of Agriculture, Livestock and Irrigation (MALI). This reduction in yield, and consequently income, is a result of the environmental degradation and crop damage and losses caused by the flooding and landslides. The MALF further observes that the growing conditions of the crops replanted after the floods as well as the post-disaster winter crop are not satisfactory: they were sowed too late and have become infected by insects and diseases.

Additionally, flood damage and lost crops are likely to combine with the pre-existing restraints of inefficient and poor milling technology and processes, poor access to tenure and agricultural land, insufficient irrigation infrastructure and a lack of agricultural extension services, resulting in even lower agricultural productivity.

In order to smooth yield and income losses due to the disaster, the distribution of 802,862 baskets of rice seeds is proposed. Additionally, due to the need to improve food security and nutrition as well as increase the diversity of crops grown by farmers in the affected the distribution of 100,000 packages of horticultural crop seeds and seedlings in proposed. Finally, to complement these activities and aid the restoration and replenishment of soil nutrients, the distribution of 20,071,550 kg of compound fertiliser is planned.

## ***Guidelines for the Distribution of Seeds and Fertiliser***

### ***Seed Fairs***

There are multiple delivery options for the distribution of seeds. However, where possible the use of seed and farming implement fairs, where local vendors are brought to local communities and farmers are provided with vouchers and are allowed to select the products they feel are most suitable for themselves, is advised. Seed fairs have multiple advantages:

- Farmers are allowed to decide amongst themselves what is most appropriate for them: the desirability, appropriateness and adaptability of varietals is subjective.
- Different maturity dates are not too much of a problem as most farmers in Myanmar hand harvest
- Through the participation of local vendors, external aid is retained in the affected area and local markets are supported.
- Crop diversity and local products should be encouraged – seed fairs allow farmers to purchase small quantities of seeds that they want to try; there is no premium for a uniform product. Though unfamiliar varieties should be promoted separately.
- Seed fairs also provide a forum for agricultural exchange and assistance, where difficulties and challenges can be collectively discussed and extension workers might provide advice to and follow-up on the community at large.

### ***Ensuring Production Stability***

Whilst high yield and pure varietals may be more important to commercial farmers, smallholder agricultural households typically value production stability over high productivity. Planting a varietal mixture allows increases production stability and should be encouraged by extension workers.

### ***Environmental Impact of Fertiliser Use***

Recovery Implementers are advised to comply with the Environmental Impact Assessment Act in the determination of the impact of the planned distribution of fertilisers on the environment. Adverse impacts of overly-intensive use of fertilisers include the contamination of drinking water supplies, eutrophication and altering the pH of soil.

### ***Community Inspection of Seeds***

Prior to the receipt of seeds and seedlings, Recovery Implementers are advised to allow communities to inspect the seeds. Only once community members are satisfied with the quality and variety of the provided seeds should they be distributed. Though seed distributions may seem like a one-off activity, the consequences of receiving unsatisfactory seeds will impact the lives of farmers and agricultural workers for many months.

#### **2.2.4 Mobilisation of Agricultural Extension Workers and**

#### **2.2.5 Gender training for Agricultural Extension Workers**

Education and technology transfer through agricultural extension agents is important for the effective utilisation of fertilisers and other inputs. However, the presence of agricultural extension workers is largely limited to favourable ecological regions and around centralised stations. This activity proposes to not only provide for additional means of transportation but also for the hiring and training of additional extension workers to achieve better service delivery to flood-affected households. The need for additional investment in extension services has been recognised as one of the main limiting factors in raising agricultural productivity.

Extension workers will engage affected households in the intensive agricultural extension programme, Good Agricultural Practices (GAP). The provision of transportation, the hiring of additional personnel, and enlistment of community volunteers will accelerate farmers' adoption of GAP across the affected areas. Additionally, Extension workers should ensure that affected communities and persons have access to regular and reliable market information and work to improve information flows in rural and remote areas.

Training in and knowledge about the use of fertilisers is still lacking amongst farmers; additionally, with much of agriculture still being done through traditional farming techniques, the introduction of new inputs and technologies under this output necessitates complementary services and technical assistance to ensure their successful implementation. Additionally, Extension Workers are also to monitor changes in production and sales after the provision of equipment and input, to ensure that beneficiaries are realising the anticipated gains.

Women are a critical source of rural labour, but often undertake gender-specific, lower-paid agricultural tasks. When discussing the rural wage gender gap, women described themselves not as farmers but as workers. This identity may stem in part from the fact that land ownership (and the possession of land use certificates) is heavily skewed towards men. But it should also be noted that due to the gendered perception of the word "farmer" in Myanmar, additional, gender-specific language should be used in the implementation of agricultural recovery activities so as to not unwittingly exclude women. Extension Workers are to be sensitised of gender inequities and work with the Department of Social Welfare to ensure that women are included in the provision of extension services – which is quite rare – and their specific needs in agriculture are addressed and incorporated into standard operations.

#### **2.2.6 Establishment of Mobile Seed Processing Plants**

The MALI has identified that the availability of quality seeds is a major limiting factor in the recovery of affected households. Whilst the distribution of seeds, seedlings and fertilisers is meant to mitigate the immediate shortfall in seed availability, the establishment and operation of Mobile Seed Processing Plants is proposed as a longer-term, more sustainable measure to ensure that affected areas continue to be able to access quality seeds. It is key that the processing plants are mobile as they would need to service a large population across large, geographic areas. The Mobile Seed Plants will be able to clean and purify paddy seeds as well as seeds for other crops such as beans, pulses and oilseeds.

Seed processing has numerous advantages, including making more uniform planting possible through proper sizing; improving seed marketing; preventing the spread of undesirable seeds; and reducing seed losses from during. This plan proposes the establishment and operation of 10 Mobile Seed Plants.

#### **2.2.7 Establish Cold Storage Facilities,**

#### **2.2.8 Provide Hermetic Seal Bags and**

#### **2.2.9 Provide Moisture Meters**

In addition to the establishment of Mobile Seed Plants, the establishment of Cold Storage Facilities and the provision of Hermetic Seal Bags are also proposed. The establishment of 2 Cold Storage Facilities (in the Department of Agriculture's seed farms in Sagaing and Bago) will improve the seed storage and distribution system which will aid future disaster responses by ensuring that there is a ready supply of seeds for distribution. Centralised Cold Storage facilities will allow for stored seeds to remain viable longer whilst maintaining their moisture content.

For areas outside the reach of the two major seed farms in Sagaing and Bago, the provision of Hermetic Seal Bags is proposed. These bags seal in seeds in anaerobic conditions and are resistant to water and heat, maintaining the moisture content of stored seeds and allowing them to still be viable for future responses and distributions. An added advantage of the Hermetic Seal Bags is that they may be used to store seeds at village-level and transported without any effect on seed quality.

The proposed provision and installation of moisture meters in seed farms and seed production areas will allow for the moisture content of seeds to be checked prior to storage and distribution. Moisture content is one of the determining factors of seed quality: too little moisture reduces seed viability and too much moisture makes seeds prone to pests, diseases and poor germination.

**2.210 Provide Combine Harvesters,**

**2.211 Provide Tractors and Associated Implements,**

**2.212 Provide Small Farming Implements and**

**2.213 Provide Paddy Dryers**

The proposed provision of Combine Harvesters, Tractors and Paddy Dryers is in recognition of both the massive impact that the disaster has had on the agricultural sector as well as the need to increase farm productivity. Anticipated advantages of farm mechanisation include increases in production volume; more intensive use of land (as well as freeing up lands used for animal fodder); increased labour productivity, cost efficiency, food security and income.

As farm machinery are productive assets, Recovery Implementers should ensure that beneficiaries provide some level of contribution to their provision, including sharing part of the cost, providing labour for maintenance or repaying the asset over time.

However, the deployment of mechanical farm technology across developed and developing countries has led to increased social disparity, as big farms are more likely to profit more from mechanisation, and technological unemployment and its associated effects (including increased urban migration). Additionally, with casual labour already amounting to 65% of all persons employed in the agricultural sector, caution is advised in the mechanisation of farm processes as it could lead to many rural, landless households being excluded from the Recovery Process. The design of these activities account for the aforementioned disadvantages in the following ways:

- The provision of small farming implements, such as walking tractors, mini-trenchers or small series cultivators is intended to benefit farmers with smaller landholdings where larger farming implements such as combine harvesters and tractors may prove unwieldy. Though they might not improve productivity to the same extent that larger machines are able to, small farming implements are much more appropriate for smallholder farmers and due to their much lower cost, can be provided to a much wider range of people.
- Recovery Implementers are advised to ensure that there is broad ownership of mechanical farm implements in order to prevent increases in social disparity. Community members should collectively agree on the management and upkeep of the farming implements, establishing a system where these new resources are equitably shared. Additionally, whilst the ownership of larger machines, such as combine harvesters and paddy dryers, is likely to be retained by the government, Recovery Implementers must ensure that there is equal access and fair usage for all; if no such corrections

are undertaken, the benefits from large machines are likely to be mostly accrued by commercial farmers with large landholdings and not contribute to meeting the needs of the most vulnerable.

- In addition to the provision of these farming implements, the Ministry of Agriculture and Irrigation is to undertake the necessary training and education on how the implements may be operated. Where possible, Recovery Implementers should endeavour to support the creation of jobs maintaining and operating the new farm machinery.
- Other activities that mitigate the adverse effects of farm mechanisation include Cash-for-Work interventions and cash grants (page 57); Vocational training and entrepreneurship support (page 74); and large-scale public works which provide employment (page 52). Recovery Implementers are encouraged to coordinate the implementation of agricultural activities with these other interventions.

#### **2.2.14 Undertake Land Reclamation and other Amelioration works**

Agricultural communities face both the immediate damages and losses from the crops that have been washed away as well as the long-lasting damage done to agricultural land by the floods and landslides. Previous experience in the response to cyclone Nargis indicates that environmental degradation was one of the primary factors in the slow recovery of affected persons. The land degraded from the flooding includes areas where silt and debris have been deposited on productive lands, areas where agricultural soils have been eroded or areas affected by flooded-soil syndrome where the numbers of beneficial soil fungi have been dramatically reduced, causing a yield drag until fungi populations are re-established in the soil.

Though the provision of compound fertilisers might be sufficient to restore lost productivity to much of the destroyed farmland, for areas where the environmental degradation is more pronounced and persistent, a range of land reclamation and other amelioration works is proposed, including the removal of silt and debris, repairing the physical damage to the soil, stimulating microbial growth through the use of cover crops and installing drainage infrastructure in the reclaimed land. Though the provision of compound fertilisers under activity 2.2.3 on page 63 is intended to facilitate the restoration of soil nutrients, this activity takes into account other chemical and physical changes in flooded soils, including changes to soil stability, soil structure and pH.

Additionally, the repair/reconstruction of the boundary walls of paddy fields is also proposed. It should also be noted that it is highly likely that much of the destroyed farmland will remain uncultivable for some time and alternative livelihoods should be arranged. All land reclamation and amelioration works must undergo an environmental impact assessment.

#### **2.2.15 Repair Dams, Reservoirs, Embankments and Irrigation Systems and**

#### **2.2.16 Construct Tubewells**

Much of the water management infrastructure, including dams, reservoirs and embankments, supporting existing irrigation systems was heavily damaged in the flooding. Additionally, insufficient irrigation was identified as one of the main barriers limiting inclusive growth in Myanmar and cannot be understated as a factor in increasing agricultural productivity. The repairs for damaged water management infrastructure are estimated at MMK 19.96 billion and are intended to restore functionality to existing irrigation systems, dams and reservoirs affected by the flooding and landslides.

Additionally, the construction and installation of 5,000 tubewells is proposed to expand irrigation coverage in the dry season, increase agricultural productivity and cropping intensity. In general, areas targeted for the construction of tubewells should be severely affected by the disaster, have assessed groundwater resources, low rates of irrigation, a large, rural population and high rates of poverty. The installation of tubewells requires access to a dependable source of power: this is mitigated by pairing 80% of the proposed tubewells with diesel generators; it is key that the remaining tubewells be installed in communities with access to electricity. As a matter of course, Recovery Implementers should consult the Ministry of Electricity and Energy and the Department of Rural Development on the progress and coverage of the Rural Electrification Scheme for possible avenues for coordination.

Though less than 20% of croplands in Myanmar are irrigated, making the construction of tubewells and the repair of dams, reservoirs and irrigation systems “no-regret” investments, the implementation of these activities is contingent on several factors:

- Completion of studies analysing the economic and environmental viability (including an environmental impact assessment) of this this undertaking.
- Compliance with Build Back Better guidelines established for water resource management infrastructure and concerted information provision activities to communities in which the infrastructure instalments are sited: this is to mitigate ongoing misconceptions that dams and spillways contributed to the severity of the flooding.
- Implementation of the groundwater law drafted by the Ministry of Construction and the development and roll-out of additional regulations and oversight to prevent the over-extraction of groundwater.
- Alignment with Disaster Management plans and the consideration of the predicted effects that el Niño will have on the climate.
- Coordination and compliance with policies and guidelines issued by the WASH Sector: though primarily an agricultural activity, the implementation of irrigation systems must account for the extreme seasonality of the water availability, with more than 80% of rainfall occurring during the monsoon and large swathes of the country experiencing severe drought during the dry season (ADB). Irrigation systems must be considered as part of an overall water resource management strategy.

However, it should be noted that even where water is delivered, the performance of most irrigation systems is far below expectations, it was noted in the Agricultural Sector and Food Security Diagnostic. The production of irrigated food crops could be much increased if existing irrigation facilities were managed and maintained more effectively and water resources utilised more productively.

## **2.2.17 Dredge and improve of river banks and drainage systems**

Should there be sufficient resources, the strategic dredging and improvement of river banks and drainage systems should be conducted to manage sedimentation and siltation in reservoirs, rivers and canals. These should also be aligned with efforts to improve flood protection facilities in the Ayeyarwaddy, Chindwin, Kaladan, Sittaung and Thanlwin river basins by increasing the height of river banks. This activity should be guided by spatial planning and flood plain restoration standards.

## **2.2.18 Provide refinancing to support agricultural recovery**

## **2.2.19 Provide soft-lending to support agricultural recovery**

In order to mitigate the chain of defaults and disruption to the cycle of debt, harvest and repayment, the provision of refinancing and soft-lending support to the Myanmar Agricultural Development Bank is proposed. This includes the recapitalisation of existing loans and the development of recovery-specific loan products which would have softer terms including reduced restrictions on loan amounts and usage, longer repayment periods and lower-than-normal interest.

The intention behind providing this refinancing and soft-lending support is twofold: first, in the aftermath of the flooding and landslides, agricultural households in the affected areas are, almost universally, on much weaker financial footing. Not only did the flooding greatly reduce the expected yield of the monsoon crop and environmentally degrade 847,471 hectares of farmland, household-level recovery needs are placing additional pressure on household finances, increasing consumption and investment needs. Affected households now need to redirect income and savings towards meeting food security needs, repairing damaged housing and replacing lost livelihood implements.

Additionally, the disruption of the cycle of debt, harvest and repair represents large institutional and structural risks for creditors as well, including the Myanmar Agricultural Development Bank. The PFLNA estimates a loss of MMK 57.41 billion from the approximately MMK 1.01 trillion in loans disbursed by MADB across the Union or a loss of 5.68% just from the flooding (please note that this calculation is based on a “compromise” scenario; at the extreme end of the PFLNA estimations was a loss of MMK 182.19 billion or 18% of loans disbursed).

According to the PFLNA, farmers indicated relying increasingly on informal credit sources and in some cases were borrowing at extremely high interest rates to pay off existing low-interest loans. Farmers also expressed concern that their repayment challenges will worsen over time as the lack of harvest income takes its toll.

For a sustainable recovery from the floods, the financial sector needs to continue operating at pre-flood levels, at the least. This would not be possible were losses from defaults and delinquencies to place undue stress on the finances of MADB. Following a more detailed analysis of the losses – the PFLNA indicated that MADB’s losses could be better enumerated – two emergency tranches of financing are proposed. The first of which would entail a MMK 42,204 million restructuring and recapitalisation of Myanma Economic Bank’s loans to MADB. This will help shore up MADB in the short term and allow it to implement the necessary recovery measures, especially the restructuring and easing repayment period for outstanding loans.

Following that, a second tranche of MMK 151,810 in soft lending is proposed. This will allow MADB to structure and disburse new recovery loans. The design of the new recovery loans should take into account the increased consumption needs and financial pressures as well as decreased income-generation capacity of agricultural households. Recovery loans, in general, should be larger in size than normal loans, have a wider range of acceptable applications, longer-repayment periods and lower interest rates. Recovery loans should be targeted at persons within the 80 most-affected townships. Following the first cycle of Recovery loans, clients may be transitioned back to normal products or offered to secure another Recovery loan.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 2.2**

	Description	Budget in million Kyats
<b>2.2</b>	<b>Increased sustainable, long-term productivity and income generation capacity for flood-affected households involved in agriculture and animal husbandry</b>	<b>412,288</b>
2.2.1	Distribute paddy seeds	6,423
2.2.2	Distribute seeds and seedlings for horticultural crops	2,000
2.2.3	Distribute compound fertiliser	15,656
2.2.4	Support the provision of agricultural extension services	1,146
2.2.5	Conduct gender training for agricultural extension workers	500
2.2.6	Establish mobile seed processing plants	300
2.2.7	Establish cold storage facilities	3,250
2.2.8	Provide hermetic seal bags	3,840
2.2.9	Provide moisture meters	199
2.2.10	Provide Combine Harvesters	2,310
2.2.11	Provide Tractors and associated implements	7,163
2.2.12	Provide small farming implements	14,153
2.2.13	Provide paddy dryers	7,800
2.2.14	Land Reclamation and other amelioration works	50,000
2.2.15	Repair dams, spillways, weirs, embankments, dikes, drainage and irrigation systems	19,955
2.2.16	Install pumps and tube wells for irrigation to increase yield and cropping intensity	36,150
2.2.17	Dredging and raising river banks in vulnerable river basins	47,430
2.2.18	Provide refinancing to support for flood-affected MADB clients	42,204
2.2.19	Provide soft lending to support to flood-affected households and communities	151,810

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
2.2.1										
2.2.2										
2.2.3										
2.2.4										
2.2.5										
2.2.6										
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2.2.16										
2.2.17										
2.2.18										
2.2.19										

## **OUTPUT 2.3 INCREASED PRODUCTIVITY AND INCOME-GENERATION CAPACITY FOR FLOOD-AFFECTED HOUSEHOLDS INVOLVED IN LIVESTOCK AND FISHERIES**

National accounts indicate that livestock and fisheries account for approximately 20% of total agricultural income in Myanmar, though these estimates may understate the economic and nutritional importance of this Sector: the rearing of small livestock and poultry may be undertaken by households which have limited access to land and provide important sources of both protein and income. Within the livestock sub-sector, recent estimates place the national chicken flock in excess of 170 million birds, with another 15 million ducks. Cattle holdings number about 14 million head with a roughly equal number of small livestock such as pigs and goats. The Dry Zone is especially dependent on livestock production with about half of all cattle and 77% of sheep and goats found there.

Myanmar's coastal and river delta regions provide rich spawning grounds for fish populations, particularly in areas where seasonal transitions occur between saline and fresh water infiltration. Fishing forms a critical part of the national economy and diet. Substantial additional fishery potential exists in the country's major rivers, especially low-lying delta areas in the south and centre of the country as well as marine fishery resources found along the country's 1,900 km of coastline and 500,000 hectares of mangrove swamps.

### **2.3.1 Rehabilitate private infrastructure and animal shelters,**

### **2.3.2 Distribute livestock and poultry and build capacity in animal management and healthcare and**

### **2.3.3 Provide animal feed, vaccinations and veterinary services**

Total livestock damages and losses are estimated at MMK 17.8 billion. They also account for a relatively large share of the total impacts because of the larger effects of the floods on infrastructure such as farm buildings and animal shelters. Losses primarily originate from the loss in draught power for farmers and losses in meat and egg production.

Experience from previous disasters indicates that many of the common issues affecting agricultural recovery interventions such as land rights, tenure issues and the uneven allocation of land, may be circumvented by both the distribution of horticultural crops and seeds (see page 63) as well as the provision of small livestock and feed packs. These interventions will improve incomes to enable households to access the resources needed to meet food, education and health expenditures.

With a total of 53,195 layer chickens, 252,200 ducks, 3,228 pigs, 3,350 cattle, 2,665 goats and 1,964 buffaloes distributed so far, livestock interventions have mainly focused on replacing herds and flocks lost to the disaster. However, these activities have primarily targeted larger commercial interests. Planned interventions in the livestock sub-sector should now focus on households whose livelihoods have been severely impacted by the disaster alongside other priority vulnerability criteria to target persons who are the most in need, as opposed to those who have experienced the largest losses. Particular attention should be paid to women, who tend to rear smaller livestock and poultry.

Recovery Implementers are to work with affected households to develop raising livestock as a viable source of income, with the intention that beneficiaries will raise then sell the animals to support their livelihoods. However, only households who have the capacity and the aptitude to care for animals should be considered for these activities. Additionally, the provision of

feed and veterinary services is required so that these substantial investments are not wasted. Corrective action should be taken if households immediately sell off animals without gaining any value from fattening them or collecting milk: this either indicates improper targeting or the need for short-term livelihoods support such as Cash-for-Work to improve households' abilities to meet their basic expenses.

Monitoring mechanisms are also especially important and should take into account the availability and access of pasture land, access and affordability of veterinary services and household food security. Additionally, in the final parts of these interventions, when beneficiaries begin to sell their livestock, it is important to monitor livestock prices to understand how much beneficiaries will receive from their livestock rearing.

#### **2.3.4 Provide Feed, Fingerlings and Medicine for Aquaculture Facilities,**

#### **2.3.5 Replace Lost Fishing Gear, Equipment and Boats and**

#### **2.3.6 Rehabilitate Aquaculture Facilities and Ponds**

86,278 acres or 18.9% of the total aquaculture area has been damaged, with the destruction most prevalent in Rakhine, which represents about 61% of the area damaged; there is a need to rebuild damaged embankments and restock fish and prawn farms. The total damage and losses caused to the Fishing sub-Sector is estimated MMK 329 billion, primarily from income losses. The damages include impacts on buildings, hatchery farms and other facilities as well as lost fishing gear, boat and equipment. This situation could also lead to increased levels of malnutrition amongst households reliant on fish proteins as part of their diet. Even prior to the floods, subsistence fishermen had been identified as one of the most vulnerable socioeconomic groups.

Due to the damage being largely limited (MMK 300 million), the provision of fingerlings, replacement of lost fishing gear and equipment as well as the rehabilitation of aquaculture facilities and ponds is proposed. Due to the concentrated damage to the fisheries sub-Sector, it is expected that many of the direct beneficiaries of these interventions may be commercial aquaculture interests which are better positioned to recover from the impact of the disaster; these interventions will also be paired with eased access to credit for micro-, small- and medium-sized enterprises (see page 74). Grants should be targeted at subsistence fishermen.

However, in the implementation of these interventions, Recovery Implementers should bear in mind the possible unintended consequences of fishing interventions: severe overfishing occurred in the Ayeyarwaddy Delta after cyclone Nargis due to the distribution of nets that were too tight; fishing all year round instead of in normal seasons; and a large influx of agricultural labourers becoming fishermen due to falling yields and poor crop quality. Fish populations were not allowed to spawn and catch sizes fell dramatically, affecting all fisherfolk. Output 2.1 describes the activities undertaken as part of the Agriculture Sector and are intended to stave off some of these consequences, but careful alignment with other activities under the Livelihoods Outcome, including Cash-for-Work and Vocational Training are required. The appropriateness of the equipment and gear distributed should also be carefully considered: due to the wide range of fish that exist across many different river and marine systems, boats and nets should be appropriate for each ecosystem.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 2.3**

	Description	Budget in million kyats
<b>2.3</b>	<b>Increased sustainable, long-term productivity and income generation capacity for flood-affected households involved in livestock and fishing</b>	<b>103,134</b>
2.3.1	Rehabilitate private infrastructure, including animal shelters	528
2.3.2	Distribute livestock and build capacity in animal management and healthcare	35,850
2.3.3	Provide animal feed, vaccinations and veterinary services	3,687
2.3.4	Provide feed, fingerlings and medicine for aquaculture facilities	62,635
2.3.5	Replace lost fishing gear, equipment and boats	191
2.3.6	Rehabilitate aquaculture facilities and ponds	244

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
2.3.1										
2.3.2										
2.3.3										
2.3.4										
2.3.5										
2.3.6										

## **OUTPUT 2.4 IMPROVED ACCESS TO SKILLS TRAINING, BUSINESS DEVELOPMENT AND FINANCIAL SERVICES**

Whilst the other outputs under the Livelihoods Outcome have been designed to mitigate the impact of the disaster and improve productivity in specific sectors and sub-sectors as well as decrease the adoption of harming coping mechanisms, activities under this output are meant to address that in spite of all other mitigative actions, many households might still be forced to alter their behaviour to cope with changes. The provision of and access to skills training, business development and financial services is necessary in order to both account for vulnerable households in search of alternative income streams as well as to improve the enabling environment to support private sector recovery and development.

The activities under this output are the most-market oriented of all interventions under the National Recovery Programme and extensive market research and monitoring is necessary for their implementation.

### **2.4.1 Entrepreneurship skills development and financial literacy training,**

### **2.4.2 Skill development for alternative livelihoods,**

### **2.4.3 Establish and deploy mobile skill-development teams and**

### **2.4.4 Conduct Study of specific needs of female-headed households**

With the widespread damage caused by the onset of cyclone Komen and the nation-wide flooding that followed, many sources of agricultural livelihoods – such as casual agricultural labour – may no longer be viable or able to provide for basic household needs. This is especially true in areas in which there has been severe and extensive environmental degradation, lowering both agricultural yields and the ability of farmers to hire casual labourers.

In addition to the abovementioned reasons, the fact that – according to the PFLNA – 65% of all agricultural workers are casual labourers makes the simple restoration of pre-disaster conditions not entirely desirable. Casual labourers have one of the most insecure forms of livelihoods – inconsistently earning about USD 2.40 for every day they work – and the least access to social protection. And if agricultural work in Myanmar generally offers few pathways out of poverty, this is especially true for casual labourers.

This leaves households searching for alternative livelihoods to meet their immediate needs. With the widespread damage to the Agriculture Sector, many households have been forced to rely on secondary livelihood activities. However, educational outcomes in Myanmar have so far been middling and they limit the alternatives for households looking to diversify their income streams; the World Bank notes that whilst enrolment rates are respectable, completion rates indicate a significant problem and quality has been poor. 25% of children started grade 1 leave after primary school and only 11% of them graduate from high school.

However, certain developments present a solution: due to the magnitude of the damage to both public and private infrastructure, a surge in construction activity is anticipated. Demand for existing, newly-skilled and semi-skilled labour is likewise expected to experience corresponding increases. Developments in the construction sector will have a ripple effect on other sectors of the economy, broadening employment as business prospects. The proposed development of alternative and non-traditional livelihoods as well as the establishment and deployment of mobile skill-development teams are meant to support the readiness of individuals and businesses to take advantage of these anticipated opportunities.

However, research and steps towards broader engagement must first be taken to determine the demand for such interventions, including examining

- The current and emerging sources of employment in local economies
- The potential absorption of trainees from employment programmes
- Competence levels and certifications required by trainees to enter the labour market
- Existing systems and resources for workforce development in the private sector

Additionally, regular monitoring is also required to ensure responsiveness to market trends. The identification of market demand for skills will be critical in matching opportunities with the preferences and capabilities of individuals as well as to contain risks related to over-supply and over-trading. The development of vocational training programmes is to be undertaken together with the National Skills Standards Authority and the parity of opportunities and participation between men and women is to be ensured. Though pursuant to informed market research, the range of proposed vocational training programmes currently include:

- Carpentry, Masonry and Welding
- Dressmaking, Weaving and Tailoring
- Food & Beverage Management
- Motorcycle Servicing and Repair
- Repair and Maintenance of Farm Machinery
- Mobile Phone Repair
- Maintenance and repair of community infrastructure
- Computer literacy and skills

To enhance the quality and practicality of the training, appropriate opportunities for formal and informal apprenticeships will be explored as part of the final certification of graduates.

These activities are to be coordinated with the large-scale, labour intensive programmes (such as the reconstruction of damaged infrastructure) which provide short-term food security and support to livelihoods. However, in the medium-to-long term, the development of high-volume vocational training programmes to build skills in carpentry, masonry and other occupations are proposed so that casual labourers with relatively low levels of education may take advantage of the anticipated increases in construction and infrastructure works. Persons in unremunerated, seasonal or insecure jobs are prevalent in all affected States and Regions. In addition to alternative livelihoods development, the Ministry of Labour, Immigration and Population is to develop and implement basic financial literacy and numeracy modules which will be made available to the wider population.

#### 2.4.5 Finance Cooperative Lending to Micro-, Small- and Medium-sized Enterprises and Strengthen Links between Businesses, Private Sector Associations and Financial Service Providers

In conjunction with the repair of damaged connectivity and logistics infrastructure – particularly in Chin, Sagaing, Rakhine and Magway – necessary to restore access and links to centres of economic activity, it is also vital to make affordable financial services available to micro-, small- and medium-sized enterprises which have suffered damages and output and sales losses. Many firms may have little financial capacity to fund their recovery and it is necessary for the Government to step in where it can.

Government institutions, including credit cooperatives, should channel lending to micro-, small and medium-sized industrial and commercial firms across the affected areas. Credit guarantees to private financial institutions may also be considered; however, it should be noted that credit guarantees have received a very tepid reception since their introduction in 2014 – there was no participation in them last year and existing attitudes and strict lending policies persist, with the Vice Chair of the Union of Myanmar Federation of Chambers of Commerce and Industry saying, “Banks won’t lend money without collateral.”

Lending through credit cooperatives should be coordinated with ongoing public and private investments, such as the ongoing Rural Electrification efforts and other infrastructure works as well as to support the creation of rural non-farm employment opportunities. Examples include agricultural and food processing or encouraging landowners to invest in minihydro and other off-grid and microgeneration opportunities

In the provisions of loans and microcredit to affected persons and enterprises, Government institutions should take into account the business’s ability to repay the loan: many businesses might no longer be viable after disasters and should not be eligible for loans; additionally, the population density must be sufficient to generate enough demand for businesses to recover – sparsely-populated areas might not be able generate sufficient returns. The provision of financial services should be based on periodic market assessments and undertaken with an understanding of profitability, the enabling environment and potential risks and returns.

Both women and men entrepreneurs will be targeted. In addition to the provision of lending, Credit Cooperatives will work with both male and female entrepreneurs and provide training on financial literacy, planning and management skills as well as link them to chambers of commerce, social service providers and business associations. A forum composed of community members and entrepreneurs will be established to undertake in-depth participatory market analyses to identify micro-, small- and medium-sized enterprises with significant market demand and the potential to generate profits.

#### ***BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 2.4***

	<b>Description</b>	<b>Budget in million kyats</b>
<b>2.4</b>	<b>Improved access to skills training, business development and financial services</b>	<b>204,857</b>
2.4.1	Skill development programmes for enterprises (financial literacy, entrepreneurship)	9,100
2.4.2	Skill development for alternative livelihoods	42,600
2.4.3	Establish and deploy mobile skill-development teams	2,657
2.4.4	Study of special needs of female-headed households in affected areas	500
2.4.5	Provide Credit Guarantees and Finance cooperative lending to micro-, small and medium enterprises (loans)	150,000

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
2.4.1										
2.4.2										
2.4.3										
2.4.4										
2.4.5										



*photo credit: Ministry of Health*

# OUTCOME 3

# INCREASED SOCIAL PROTECTION FOR AND ACCOUNTABILITY TO FLOOD-AFFECTED COMMUNITIES

## Introduction

Though not activities related to the damage and loss caused by the flooding and landslides, the provision of community accountability services is one of the most important factors required for the successful implementation of interventions. As even when we are motivated by the best of intentions and do the best work that we can, our actions may still cause unintended and unforeseen consequences, many of which may be concerning to communities.

Many of the processes described in this section may already be part of the work being done by Recovery Implementers: this Outcome merely tries to make these efforts more systematic. When we are not methodical about implementing accountability, community relations and engagement may be incompletely or incorrectly managed and lead to increases in tension and conflict.

Being accountable – a combination of providing timely and reliable information; encouraging community participation and consultation; and establishing and maintaining feedback mechanisms – gives us the opportunity to improve our work and ensure that we are always doing our utmost to improve the lives of the people we work with and respect their involvement in the Recovery Process. The benefits of accountability are numerous:

- Helps to ensure our activities are meeting beneficiaries' needs - People have a very good idea of what they need. We can avoid making mistakes by ensuring that we provide a service which is based on an agreed combination of what others really need, and what we are able to realistically achieve – this is taking account of other people and being clear about your abilities and goals.
- Better use of resources - By managing any issues in our programme early, we can save a lot of time and money instead of having to go back later and correct or change program activities. It also allows us to make changes before an issue becomes a major problem. For example, if some people are getting more than others – those missing out will be able to tell you if there are effective communication processes in place.
- Protect staff - Being transparent and having a good complaints mechanism helps us to be open to community perspectives and this helps to reduce unfair accusations and claims of bias. This is particularly important in contexts where there are pre-existing tensions as the mechanisms can reduce suspicion and prevent complications.
- Improves the Government's relationship with communities - Open communication improves relationships and builds trust. Dialogue and trusting relationships are essential ingredients to efficiency and better outcomes in programmes.
- Increases sustainability through empowerment and ownership - The process of working and achieving things together can strengthen communities. It builds confidence, skills, capacity to co-operate, consciousness, and critical appraisal. This gives people more power to tackling their own challenges individually and collectively.
- People care as much about how we work with them as what we deliver – The Listening Project, a series of consultations with 6,000 people from societies on the recipient side of international assistance, consistently found “how” agencies provide assistance, and the relationships they make in that process, is often more important than “what” agencies provide.

- Protects communities – a feedback and complaints mechanisms allows for the reporting any breaches of Government Policy and Conduct.

Activities under this Outcome are broken down into three large outputs:

### **Providing Information**

A prerequisite for carrying out any interventions: it is important to provide communities with accessible and easily understood information about projects, beneficiary selection criteria, entitlements as well as about the implementing agency in a timely and accurate manner. Communities cannot participate in our interventions or provide feedback unless they know who we are, what we are doing and who to contact.

### **Consulting and Promotion Participation**

Consultations are to occur as early as possible in the planning process, and include wide and diverse representation from the community. Consulting communities on key decisions in an open, welcoming manner allows for necessary changes to be communicated and made. This helps ensure that there is informed consent with our interventions.

In all our work, we should seek to purposely empower beneficiaries and build community capacity. Communities should participate in key decision-making processes such as the development of beneficiary selection criteria as well as the selection process. Existing community capacities should be identified prior to beginning any new interventions.

### **Collecting and Acting on Feedback**

When we collect and act on feedback and complaints through procedures that are accessible, safe and effective. To be effective and build trust and confidence, feedback should be acted on and complaints resolved in a timely manner. Steps should will also be taken to sensitise beneficiaries and communities about their rights to good service delivery and their right to complain and available methods. The effective implementation of feedback and complaints mechanisms will allow for a stream of open communication between Recovery Implementers and community members.

## **OUTPUT 3.1 FLOOD-AND-LANDSLIDE AFFECTED PERSONS RECEIVE RELEVANT INFORMATION IN A TIMELY, ACCESSIBLE AND ACCURATE MANNER**

### **3.1.1 Produce and disseminate sector-based information materials and**

### **3.1.2 inform communities about their rights and how they may provide feedback**

Good Information Provision is a prerequisite for carrying out any interventions: it is important to provide communities with accessible and easily-understood information about projects. Communities will not be able to fully participate in interventions or provide feedback unless they are aware of several basic pieces of information; every effort should be made at village-level to inform all persons about all relevant programme and disaster information including:

- The Implementing Agency and its scope of duties
- Planned Activities, Timelines and Budgets
- Beneficiary Selection Process and Proposed Selection Criteria
- How they may Participate in projects
- How they may Provide Feedback and Input
- How they may contact the Implementing Agency
- Protection information i.e. IEC on discrimination, gender-based violence and trafficking
- Other relevant sector-specific information i.e. build-back-better guidelines
- Any relevant information on how the Recovery Assistance ties in with existing government activities
- Other information requested by affected communities

The Department of Social Welfare is to undertake responsibility for the production and dissemination of guidelines and templates for local authorities; it is also to work with each Sector and State/Region governments to produce and disseminate sector-based information materials, including specific selection criteria and the specific set of items/services that targeted persons may expect to receive.

It is necessary to consult communities on the most effective ways in which information may be disseminated and often, more than one means of communicating information is required i.e. combining community meetings, household visits, blast SMS and establishing regularly-updated notice boards.

Access to relevant, reliable information is vital for affected communities. Every effort should be made to reach out to all persons in the target community, including those may not normally participate in community meetings and forums.

### **3.1.3 Strengthen Public Broadcasting Services**

In the provision of information to the general public, the Government of Myanmar has unparalleled access to massive public information and broadcasting platforms. It is proposed that the Ministry of Information and the Ministry of Communication and Information Technology, together with the Department of Social Welfare develop partnerships with public and private broadcasting networks in an effort to provide large parts of the affected population with disaster and programme information.

Together, they shall develop network programming together with broadcasters and sector specialists around key messages about the Recovery Process to be communicated to the general public, including:

- Information on Building Back Better
- Information on Disaster Management and Climate Change Adaptation
- Progress updates on the implementation of Recovery Activities
- Their rights to receive information, be consulted on and participate in key process and provide feedback
- Protection and safety information
- Call-in programmes where government officials answer questions about the Recovery on-air

Where possible, all programming is to be developed in local languages, so as to reach a wider group of people. Included in this outcome are provisions for the distribution of radios to remote communities and possible increase of broadcasting capacity of public and community broadcasting capacities in rural and remote areas.

### **3.1.4 Orient and Sensitise Government staff on Accountability**

Due to the relatively-new nature of social protection and accountability interventions, the Department of Social Welfare will develop materials and training packages, including on recovery principles, common standards and the importance of being more accountable and improving community engagement, to sensitise all Civil Servants who are involved with the National Recovery Programme.

#### *BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 3.1*

	Description	Budget in million kyats
<b>3.1</b>	<b>Flood-affected persons receive relevant programme and disaster information in a timely, accessible and accurate manner</b>	<b>7,800</b>
3.1.1	Produce and disseminate sector-based information materials	1000
3.1.2	Inform communities about their rights and how they may provide feedback	300
3.1.3	Strengthen public service broadcasting agencies	6,000
3.1.4	Orient and sensitise government staff on Accountability	500

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
3.1.1										
3.1.2										
3.1.3										
3.1.4										

## **OUTPUT 3.2 FLOOD- AND LANDSLIDE-AFFECTED PERSONS ARE CONSULTED ABOUT AND PARTICIPATE IN THE RECOVERY PROCESS**

### **3.2.1 Coordinate Sector-based Consultations with Affected Communities on Proposed Activities**

In the implementation of this multi-sector Recovery Programme, coordination is required not only at the national and state-and-region levels but also at the village-level as well.

All activities require the informed consent and participation of affected communities, who may contribute by providing project inputs such as labour, skills and materials.

To the fullest extent possible, consultations and site visits should be coordinated and consolidated. This is so that we may respect communities' time and communicate to them in a coordinated manner, limiting room for mixed messages. To facilitate this, the Department of Social Welfare will work with Sectors to conduct consolidated consultations with communities.

It was also noted in the PFLNA that a minority of the townships in flood-affected areas have experienced conflict and communal tensions, complicating the social risk of the flood response. Additionally, there are also risks of social tension over perceived aid inequity and previous experience of responding to disasters in Myanmar suggests that an influx of post-disaster assistance can create social tension, especially if community members feel left out of decision-making processes and have perceptions of unfairness in aid delivery.

### **3.2.2. Establish Criteria for and Conduct Participative Beneficiary Selection**

The Department of Social Welfare is to oversee and support the beneficiary selection process and assist in the identification of beneficiaries, based on the selection criteria and process in the section on Common Standards and Principles on page 22. The household-level activities for which beneficiary selection include:

- Provision of housing repair materials
- House reconstruction
- Resettlement
- Cash-for-Work and cash grants
- Provision of seeds, fertiliser and other farming implements
- Distribution of livestock and fisheries support
- Reconstruction of animal shelters
- Skills development and vocational training programmes

The beneficiary selection process calls for involved, substantive community consultation, participation and feedback. The intention behind the design of this process is to contribute to a better understanding of beneficiary selection process, elicit stronger support for activities from communities through assuring their participation and demonstrate – through the collection and incorporation of feedback – that the selection process has been rigorous and intensive. When implemented in other emergencies, affected communities reported that participatory beneficiary selection processes led to improved targeting and greater community ownership of decisions, improving community trust and reducing impressions of bias.

*BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 3.2*

	Description	Budget in million kyats
3.2	<b>Flood-affected persons, including children, the elderly, PWDs, ethnic and religious minorities and the poor, have access to social protection services and are consulted and participate throughout the recovery programme cycle</b>	3,300
3.2.1	Coordinate sector-based consultations with affected communities on proposed activities	1,500
3.2.2	Establish criteria for and conduct beneficiary selection, in consultation with affected communities	1,800

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
3.2.1										
3.2.2										

## **OUTPUT 3.3 FLOOD- AND LANDSLIDE-AFFECTED PERSONS ARE ENABLED TO PROVIDE INFORMED, CONFIDENTIAL FEEDBACK ABOUT RECOVERY ACTIVITIES**

### **3.3.1 Establish Suggestion Boxes, Help Desks and other Relevant Feedback and Complaints Mechanisms and**

### **3.3.2 Establish and Maintain Database of Community Feedback and Complaints**

A key part of establishing trust with target communities is the establishment and maintenance of Feedback and Complaints Mechanisms: collecting and responding to feedback and complaints is a demonstration of Recovery Implementers' respect for affected communities' right to have a say in the implementation of interventions. All stakeholders in the Recovery Process, including beneficiaries, non-beneficiaries, partners and local leaders may provide feedback and complaints.

Communities and families are not passive recipients of Recovery Activities. The Government of Myanmar is committed to providing them with the means necessary to provide feedback on and complaints about Recovery Activities.

Though much informal feedback is collected and acted as a part of normal government work, the implementation of Feedback and Complaints Mechanisms and Systems proposed in this plan is understood to be a new activity in a Recovery Programme. This includes the establishment of hotlines help desks, orientations on feedback and complaints mechanisms, placement and monitoring of suggestion boxes, SMS systems and hotlines to collect confidential feedback and complaints from community members.

Community feedback is to be consolidated and presented to the Management and Coordination functions of the Recovery Programme, including at state-and-region and national disaster management meetings and recovery coordination meetings. It is important to note that the personnel collecting feedback and complaints should not be from the same department/agency as those implementing activities: people are far less likely to complain if they fear that their feedback could negatively impact their receipt of recovery assistance.

Community mobilisers and the Department of Social Welfare should record all complaints in logbooks; then refer complaints on the relevant department/agency for resolution; then communicate the resolution back to complainants. It is important for feedback and complaints mechanisms to respond to issues as quickly as possible for communities to have faith in and continue using such systems. The inappropriate handling of feedback and complaints often results in communities feeling that they have not been heard; in extreme cases, this might lead to frustrations being channelled to other outlets such as protests and disruptions of services. Lastly, all persons whether they are beneficiaries or not are welcome to lodge anonymous complaints, but complainants should be advised that this will make it difficult to report back about resolutions.

To facilitate the timely response to community feedback and complaints as well as provide an additional level of oversight over this process, a database of feedback and complaints is to be established. The analysis of this database will help determine how widespread or localised certain issues are and facilitate resource management within the Social Protection and Accountability Sector. For instance, widespread dissatisfaction with agricultural interventions might indicate the need for those activities to be overhauled and redesigned.

### 3.3.3 Establish Collection and Referral Mechanisms Sensitive Complaints

It is also important to establish separate systems for more sensitive complaints: as the collection of feedback is not limited to any one topic, encountering sensitive complaints is not an infrequent occurrence. In order to direct these issues to the proper channels, referral procedures should be set up for issues related to:

- Improper Staff Conduct and Behaviour
- Inappropriate Management of Resources
- Gender-based Violence and other types of Abuse

It is for this reason that it is advised that the same entity/agency responsible for the implementation of activities should not be responsible for the collection and monitoring of feedback and complaints. It is important to remember that communities are not likely to raise issues if it will identify themselves to those who are implementing Recovery Interventions. In rare cases where there has been staff misconduct or the inappropriate management of resources, community members should have the recourse to report these issues to persons who have the authority to undertake corrective actions.

Because of their sensitive nature, sensitive complaints are not to be entered into the same logbooks as the other feedback and should be managed and followed-up separately.

#### *BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 3.3*

	Description	Budget in million kyats
3.3	<b>Flood-affected persons, including children, the elderly, PWDs, ethnic and religious minorities and the poor, provide informed, confidential feedback about recovery activities which is documented and responded to in an appropriate and timely manner</b>	2,500
3.3.1	Establish suggestion boxes, help desks and other relevant complaint response mechanisms	1,500
3.3.2	Establish and maintain database of community feedback and complaints	500
3.3.3	Establish Collection and Referral Mechanisms for Sensitive Complaints	500

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
3.3.1										
3.3.2										
3.3.3										

## **Standards and Guidelines for Accountability**

The following quotes, from an Accountability to Affected Persons report on displaced communities in Kachin and Rakhine carried out by CARE and UNICEF in 2015 illustrate and underscore the standards and guidelines for the provision of Social Protection and Accountability Services:

### **Accessibility and Inclusion**

“Most of the discussions and consultations happen with camp committees and upper levels. But we are informed about the decisions that are made. I think in the future the organization should involve IDPs more. The stage where I feel more involved is in the implementation, because only camp committees and agency/camp volunteers are involved in planning and monitoring.”

“I’ve heard from villagers about the agency is working here in WASH activities, but I really don’t know much and did not receive any visit although I am in the village, in my house most of the time.”

As mentioned in earlier sections, part of being Accountable is ensuring the inclusion of all persons, including vulnerable groups in all processes and activities. Simple considerations form part of the need to ensure that all feedback and complaints mechanisms are accessible to all groups, including those who are illiterate as well as persons who might not be as mobile as others. Recovery Implementers should ensure that accountability mechanisms are accessible to all.

### **Confidentiality**

All complaints must be dealt with in confidence by all government staff handling complaints and complainants. We should do all we can to protect the identities and ensure the safety of those who trust us with their feedback. Only when we are able to ensure community members that they will face no adverse consequences for speaking out will they begin to trust the systems that we have established. The protection of the complainant from intimidation or abuse of any form should be ensured. And in the development of a Database of Feedback and Complaints, all steps must be taken to ensure the data privacy of all complainants.

### **Timeliness and Responsiveness**

“We can raise our voice in camp committee meeting [Camp committee meet with IDP’s]. Therefore there is a way to complain. But then the camp committee will talk with the agency, then the agency will talk with donors. So it takes a lot of time to get a response, sometime, no response at all.”

“So far we only have requests, no complaints. We have raised many requests and the agency has also committed to meet these requests. Although implementation has not started, we have trust in the Agency, that’s we are rating the agency highly on this aspect.”

In addition to ensuring strict confidentiality, the timely and responsive provision of information, consultation with communities and responses to feedback and complaints help build trust in the Government and its commitment to improve the wellbeing of affected persons.

### **Relevance and Appropriateness**

"We have some information about WASH activities but not detailed info. If we have all information, we can contribute time in the activities and we can better use the facilities [more actively]. We can also contribute volunteers."

"During latrine construction and rehabilitation, I was requested to make suggestions about the material. I advised not to use bamboo. I suggested brick walled latrines instead since it last longer. They took my opinion and now I wait to see whether they considered it – rehabilitation is not started yet."

It is not always possible or necessary to provide communities with exactly what they want; however, when affected communities are clear about the purpose of the Recovery Activities in their area as well as the role and limitations of the government agencies implementing it, feedback and complaints tend to be more structured and will be more appropriate for consideration and incorporation into implementation.



*photo credit: Ministry of Construction*

# OUTCOME 4

## GOVERNMENT CAPACITY TO DECREASE VULNERABILITY TO DISASTER AND CLIMATE RISKS IS STRENGTHENED

## **OUTPUT 4.1 LOCAL AND NATIONAL DISASTER RISK REDUCTION AND CLIMATE CHANGE ADAPTATION PLANS ARE DEVELOPED**

### **4.1.1 Conduct community Risk Mapping,**

**4.1.2 Develop Multi-Hazard Disaster Risk Management Plans (national, state/region, township, community) and**

### **4.1.3 Develop National Public Awareness on Disaster Risk Management**

According to the PFLNA, community awareness of disaster risk is low, undermining their capacity to prepare for, mitigate the impacts of, and response to future disasters. Ongoing public awareness and education initiatives have had limited coverage and impact at the community level. Furthermore, community-based disaster management activities are typically driven by external agencies, resulting in scaling and sustainability issues.

A more comprehensive, strategic and sustained investment in both public awareness of and community participation in disaster management is required to build resilience, with special attention being given to reaching out to vulnerable groups and linking community resilience efforts to form disaster management structures.

The Relief and Resettlement Department of the Ministry of Social Welfare is to lead the development of participatory community risk mapping tools and the training necessary for Township and Village-tract Administrations to implement them. This includes basing risk maps on community resource maps and having local communities developing the content of maps according to what is important to them. This might include infrastructure and services, water sources, agricultural and forest lands as well as cultural and commercial spaces. It is not necessary to develop and absolutely accurate map.

Recovery Implementers should then engage local communities in the analysis of their maps, including the frequency and severity of the natural hazards in the area, common coping mechanisms, seasonal variations in climate and disaster risk, which structures would be most at risk, vulnerable groups particularly prone to disaster risk and the impact of hazards on livelihoods. These risk maps are to be consolidated at higher levels to form detailed Township and State-and-Region Plans which also take into account the management and operation of responses as well as their financing.

The Relief and Resettlement Department, together with State and Region Governments is to then develop a comprehensive public awareness strategy aimed at increasing public awareness of disaster management as well as good practices. As a follow up to the development of the community risk maps, local communities should be further engaged in public awareness and education activities which take into account the specific range of climate and hazard risks faced by each area.

### **4.1.4 Establish Safe Shelters and Evacuation Centres**

Subsequent to the development of community risk maps and the disaster management plans, Township and Village-tract level authorities are to identify safe spaces and structures which may be used as shelters and evacuation centres in multiple types of emergencies.

The locations, capacities and facilities of each of the proposed shelters and evacuation centres are to be assessed and the findings disseminated to all community members as part of interventions under Activity 4.1.3 to raise public awareness of these facilities.

*BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 4.1*

	Description	Budget in million kyats
<b>4.1</b>	<b>Local and national government disaster risk reduction and climate change adaption plans are developed approved and funded</b>	<b>4,609</b>
4.1.1	Conduct community risk mapping	1,000
4.1.2	Develop Disaster Risk Management plans at all levels (national/regional) in all sectors	1,000
4.1.3	Develop national public awareness on Disaster Risk Management	609
4.1.4	Establish safe shelters and evacuation centres	2,000

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
4.1.1										
4.1.2										
4.1.3										
4.1.4										

## **OUTPUT 4.2 GOVERNMENT COORDINATION AND INFORMATION SHARING SYSTEMS ARE STRENGTHENED**

### **4.2.1 Develop Disaster Management Financing Instruments and Plan**

Whilst the Government was able to draw on the President's Reserve Fund and the National Disaster Management Fund to finance response and recovery activities, there remain concerns that regular budget lines in line ministries have been diverted toward recovery and reconstruction activities, and away from sectoral development plans. The absence of insurance coverage in the country has also placed extra burden on the Government to support households in their recovery.

Myanmar does not currently have a strategy or policy in place to systematically manage the financial impact of natural disasters; and the Government has a unique opportunity to design new financing instruments, including a combination of contingency funds and disaster insurance, to effectively address future post-disaster funding needs in line with the frequency and severity of hazards.

In combination with the development of new Financing Instruments, new procedures, specific to emergency responses, should be developed to facilitate the rapid and coordinated disbursement of funds. These might include emergency financial procedures such as streamlined procurement and approval processes, with temporarily increased limits of authority.

Additionally, though the delivery of activities under the National Recovery Programme has been distributed across various Union Ministries and State/Region Governments, there is a pressing need to augment existing financial management capacities to develop consolidated expenditure-monitoring and budgeting systems that are aligned with the structure and framework of the National Recovery Programme whilst being able to accommodate a range of funding sources.

The Ministry of Planning and Finance, together with the Finance Subcommittee of the NNDMC, is to lead the assessment of existing capacities and propose how Union-wide expenditures may be effectively monitored and compared against progress reports from the various implementing agencies. This is to include how challenges in the mobilisation of funding may be addressed. These issues are dealt with in more detail in the Section on Financial Management on page 126.

### **4.2.2 Improve the Reporting, Confirmation and Analysis of Disaster Data and Progress and**

### **4.2.3 Improve e-Government Infrastructure and Platforms**

In an emergency the quality and availability of information are vital for effective decision making and a coordinated response. Existing information management and enterprise resource planning systems should be improved so that they may collect, manage and analyse disaster data.

However, in the interest of having coordinated reporting and analysis of disaster damage and progress, there is a need to align and consolidate the numerous existing databases being developed by the Recovery Coordination Centre, the UNDP as well as the Central Statistics Office. It is proposed that the Central Statistics Office assume responsibility for the development of one unified database, in line with their leadership of the Damage and Loss Confirmation Subcommittee.

Progress and achievement reporting requires, much like the development of Financial Management, protocols and plans which allow for the consolidated and coordinated reporting of multi-sector intervention packages and the monitoring of progress over a wide range of geographic areas.

The Recovery Coordination Committee is to work with the Sectors, the Ministry of National Planning and Economic Development, State and Region Governments, as well as with the Relief and Resettlement Department and its Emergency Operations Centre to enumerate a full list of indicators and definitions. The establishment of monitoring and reporting mechanisms are explored in more detail in the section on Quality Assurance on page 122.

There are currently no comprehensive national risk assessments in Myanmar; and although early warning and forecasting capacity has improved substantially in the past decade, it requires further strengthening and increased investment. With rapid telecommunication changes, Myanmar can take advantage of newly affordable technologies to improve the collection, management and application of disaster information.

#### **4.2.4 Establish Platforms to share Disaster and Progress Data**

Internal communication is one of the foremost challenges in the establishment of new structures and the implementation of multi-sector capital projects. The Emergency Operations Centre, during the emergency phase, provided itself as a platform from which all disaster and progress data was collected, analysed and the findings reported. However, it was recognised that these efforts needed to be more systematically-implemented in order to have their desired effect.

Ultimately, the establishment for information-sharing platforms is less about hardware than developing dedicated networks of personnel across different Union Ministries and State and Region Governments. Currently, the main outlet for information sharing are Recovery Coordination Meetings, which are called monthly. However, in order to implement the National Recovery Programme, links between technical experts and personnel working on the implementation of activities is required.

One solution, frequently used in the disaster responses, is the establishment of Technical Working Groups which allow for intra- and inter-sectoral coordination to ensure that the programmatic integrity of the National Recovery Programme is maintained, minimum quality standards are met and corrective action proposed in a timely manner.

The Recovery Coordination Committee also plans to issue a monthly bulletin on Union-wide progress in Recovery but a singular, high-level report is insufficient to communicate all the necessary information, especially when it also has to serve as a public-domain documentation of Recovery priorities and achievements.

All Sectors are advised to develop their own internal coordination mechanisms and networks supported by Secretariat services provided by the lead agency of Each Sector. The Recovery Coordination Committee will work with each Sector to decide on the expected outputs and processes of such internal coordination mechanisms. These largely relate to the maintenance of all relevant technical designs, documentation of major decisions and the establishment of internal communications platforms and tools to ensure that the flow of information is sufficient to sustain evidence-based decision making.

***BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 4.2***

	Description	Budget in million kyats
<b>4.2</b>	<b>Government coordination and information sharing systems are strengthened</b>	<b>7,700</b>
4.2.1	Develop Disaster Risk Management Financing Instruments	4,550
4.2.2	Improve the reporting, confirmation and analysis of disaster and progress data	150
4.2.3	Improve e-government infrastructure and platforms	1,500
4.2.4	Establish platforms to share disaster risk data	1,500

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
4.2.1										
4.2.2										
4.2.3										
4.2.4										

## **OUTPUT 4.3 DISASTER PREPAREDNESS AND MITIGATION FACILTIES AND STRUCTURES ARE ESTABLISHED AND STRENGTHENED**

### **4.3.1 Strengthen Emergency Operations Centre and Recovery Coordination Centre Systems and Network and**

#### **4.3.2 Capacity Building of Civil Servants in Disaster Management**

The work of the Emergency Operations Centre in the response phase provided many lessons and best practices to be adopted in the strengthening of disaster management systems. Its dedicated response activities led to much improved coordination and collaboration and information management amongst government entities. Its approach and practices form the foundation of the transition from relief to recovery, as well as the establishment of the Recovery Coordination Centre.

However, numerous gaps in capacity have been identified, including the lack of technical monitoring and assessment capacity, lack of Government experience with inter-ministerial coordination mechanisms, insufficient planning and implementation capacity at the sub-national levels as well as a number of challenges in collecting reliable data in a timely manner and facilitating both top-down and bottom-up recovery planning.

The Recovery Coordination Centre, still in the early stages of establishment, has taken steps, together with Union Ministries and experienced sector specialists, to develop the National Recovery Framework and Plan. However, much work remains at the subnational levels in order to effectively contextualise, implement and monitor the proposed activities.

To that end, a comprehensive disaster management capacity building plan will be developed for both emergency and recovery facilities so that they are better able to plan and monitor the National Recovery Programme as well as respond to future disasters. This includes building capacity in monitoring and evaluation, disaster assessments, strategic and planning functions as well as financial management and coordination.

As a precursor to the proposed capacity building activities, the NNDMC is to undertake a comprehensive review of disaster management policies and processes. The relationship between the EOC and the RCC has been a subject of intense debate and the operational costs of maintaining two separate full-time disaster management facilities might not prove feasible in the long-term. However, disbanding and reforming response structures in between disasters causes the loss and redirection of and prevents the institutionalisation of capacity.

It is further proposed that the Government maintain a roster of personnel and units to be trained in disaster management and be ready to respond in the event of future disasters. The specific roles and responsibilities of the various actors in Response and Recovery should also be redesigned to reflect learning from the response phase as well as current implementation realities.

The strengthening and improvement of EOC and RCC systems and networks is to be coordinated with any current and planned review and revision of disaster management policies as well as the development of disaster management plans under Output 4.1.

#### **4.3.3 Improve Multi-Hazard Early Warning and Dissemination System**

The rapid identification of natural hazards and the communication of their risks was one of the greatest contributions of the Emergency Operations Centre (EOC) to saving lives and alleviating human suffering. A range of national and regional hazard monitoring tools were employed.

However, in spite of the early and sustained involvement of the Civil Defence Forces and the Myanmar Red Cross Society in the evacuation of affected persons, additional systematisation is needed – it is currently unclear, as there have yet to be community-level evaluations, about how effective early warning systems were in reaching and being understood by affected persons.

Though some townships reported receiving information well before flood events, others were given relatively little notice, undermining their preparedness efforts. A few townships reportedly relied on information received through social media whilst other struggled to share information down to the village level due to disrupted communications services.

A comprehensive review of Government Early Warning Systems is necessary – and already underway, in partnership with JICA. In the development and improvement of Early Warning Systems, the Relief and Resettlement Department of the Ministry of Social Welfare is to develop and implement Public Communication strategies and tools, which may be adapted to various contexts and hazard risks. Every effort should be taken to systematise both the provision of information through early warning systems and the expectations of the audience that these systems serve at the State/Region, Township and Village levels.

Early Warning Activities are to be coordinated with the development of community risk maps: as with social protection and accountability interventions, multiple means of communication must be established in order for early warnings to reach and be used by affected communities. Only then should the necessary equipment and hardware be identified, procured and installed.

#### **4.3.4 Modernise Hydro-Meteorological Climate Risk Tracking Systems**

The National Multi-Hazard Early Warning Centre was established in 2006 and is operated by the Department of Meteorology and Hydrology (DMH) of the Ministry of Transport; it is responsible for the issuance of early warning for hydro-meteorological, geological and maritime-related hazards to all public authorities and stakeholders. In addition, the NNDMC is supported by the Emergency Operations Centre (EOC), with real-time hazard information collected from regional and global networks. In addition, various departments such as the Department of Irrigation in the Ministry of Agriculture and Irrigation, have their own observation stations; but information sharing is limited.

During the emergency phase, DMH was able to provide good forecasts (daily, 3-day, 10-day, monthly and seasonal). However, the PFLNA identified that DMH's capacity to forecast flash floods and riverine floods is limited; additionally, much of the information provided by DMH to the EOC did not mesh with the Early Warning Systems and in order to be relevant to disaster preparedness and mitigation, interpretation and adaptation of the DMH data was required. Modernisation of Hydro-meteorological and Climate Risk Tracking Systems is proposed. This includes addressing the poor coverage of observation stations and the integration of new tools and technology into existing processes.

#### **4.3.5 Develop and Employ Hazard Maps and Multi-Hazard Risk Atlas**

A hazard profile was developed for the country in 2009 based on historical data. Professional societies such as the Myanmar geo-science Society and Myanmar Engineering Society have also developed hazard-specific maps and numerous development partners have undertaken geographically-targeted hazard assessments. However, other layers of risk assessment data, in particular on exposure and vulnerability also need to be included in the development of a National Risk Atlas. Additionally, the Relief and Resettlement Department is in the process of finalising a road map that establishes a common vision and objectives for a national risk assessment.

#### **4.3.6 Strengthen Disaster Management Training and Research**

Much good work has been carried out by the Ministry of Social Welfare's National Disaster Management Training Centre. However, in order to continue increasing the country's response capacity, additional investment in disaster management training and research is necessary.

#### *BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 4.3*

	Description	Budget in million kyats
<b>4.3</b>	<b>Disaster preparedness and mitigation facilities and structures are established and linked with state/regional and national structures</b>	<b>21,572</b>
4.3.1	Strengthen emergency operations centre and recovery coordination centre systems and network	6,000
4.3.2	Capacity building and training of civil servants in disaster risk management and environmental management	6,000
4.3.3	Improve multi-hazard early warning and dissemination system	2,000
4.3.4	Modernise hydrometeorological systems	4,000
4.3.5	Develop and employ hazard maps and multi-hazard risk atlas	2,000
4.3.6	Strengthen disaster management training centre	1,572

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
4.3.1										
4.3.2										
4.3.3										
4.3.4										
4.3.5										
4.3.6										

## **OUTPUT 4.4 THE EFFECTS OF ENVIRONMENTAL DEGRADATION ARE MITIGATED**

Farmers interviewed as part of the country diagnostic on Agriculture and Food Security frequently mentioned increasingly facing extreme weather events, which were difficult to predict, with drought one year and flooding the next. Most formal assessments suggest that Climate Change will affect Myanmar significantly: more so than any of its counterparts in ASEAN.

Major expected changes include rising temperatures, higher rainfall and a shorter rainy season which will contribute to an increase in flooding. Rising sea levels along the coast are likely to compound these problems increasing saltwater intrusion and soil salinity in coastal areas and river deltas. Freshwater flows have also grown increasingly unpredictable.

Environmental degradation can aggravate the effects of natural hazards and thereby act as a driver of disaster risks. Changes in land cover and land use affected the ability of water to infiltrate and be stored in the soil column for slow release, increasing runoff and exacerbating soil erosion and flooding. Changes in land use and land cover can not only affect flood risks but seasonal water availability as well. Alterations in catchment surface characteristics can modify the physical characteristics of riverine floods.

The reduction in forests and wetland areas reduce the role they are able to play in buffering flood events; mangroves dampen the effects of coastal storms and tidal surges on coastal lands and nearby infrastructure. Moreover, changes in land use are known to influence the scale and extent of erosion. The loss and degradation of forests increases the velocity and intensity of runoff which in turn cause soil erosion and sedimentation.

The sediment load of a river contributes significantly to the river's navigability, water and habitat quality, conveyance capacity and flood risk. And, as experienced in the 2015 Floods and Landslides, sediment-related flood damages can be significant: extensive overbank deposition of coarse sediments caused significant damage to farmland, residential property and public infrastructure.

In post-disaster settings, there are a range of impacts associated with reconstruction and repair to damaged infrastructure. If not conducted with the appropriate environmental controls, there is a risk that reconstruction work could cause unintended impacts on the environment. For instance, in the case of demolition and reconstruction of damaged infrastructure, it will be important to give sufficient attention to the appropriate sourcing of construction materials and undertake careful planning for the disposal of debris and rubble, including the early identification of suitable disposal sites accessible from affected areas.

Myanmar enacted the Environmental Conservation Law in 2012 and adopted the related implementing regulations the following year. The Ministry of Natural Resources and Environmental Conservation (MNREC) is responsible for coordinating implementation of this law and has specific regulatory responsibilities for developing and implementing environmental management systems.

#### **4.4.1 Ensure and Promote Compliance with the Environmental Impact Assessment Act**

Following the passage of the Environmental Impact Assessment (EIA) Act, the Ministry of Natural Resources and Environmental Conservation (MNREC) should provide guidance to Recovery implementers on the criteria for appropriate siting for the disposal of demolition rubble, construction debris and sediment. It should also provide guidelines on the appropriate sourcing of timber for reconstruction. The majority of the activities proposed under the National Recovery Programme require environmental impact assessments (see page 26) and the MNREC is to develop a plan, in tandem with other Sectors, to ensure the compliance with EIA procedures in a manner that does not slow the Recovery Process. It is very likely, due to the recent passage and introduction of the EIA procedures and regulations, that capacity building will be required for the Environmental Conservation Department to fully meet its new and expanded mandate.

#### **4.4.2 Conduct a Systematic Environmental Assessment for Disaster Management**

A systematic environmental assessment in the disaster-affected areas will be conducted in order to provide information on the relationship between environmental degradation and disaster risks and how environmental management can contribute to disaster management. The results of this assessment will not only offer important lessons for future disasters but should also be presented to the Sectors for use in any necessary re-design of Recovery Interventions.

#### **4.4.3 Develop and promote ecosystem-based approaches to Disaster Risk Reduction**

Sustainable natural resource management can significantly contribute to Disaster Risk Reduction (DRR) as healthy and diverse ecosystems are more resilient to hazards. Improved land-use planning and management will help Recovery Implementers more proactively use ecosystems as DRR measures. Improving and maintain good land cover and soil integrity will increase infiltration and allow water to be stored in the soil column, slowing runoff and decreasing risks of flood- and sediment-related damages and losses.

The restoration and preservation of forests and wetlands can lower potential flood risks. Forests provide shelterbelts and windbreaks as well as stabilise soil and reduce erosion; research has found that maintaining a relatively small area of wetlands can reduce peak stream flows significantly. Work in this area would include:

- Developing a framework for land management
- Strengthening forestry and watershed management
- Conducting environmental impact assessments of key sectors, especially large-scale agriculture, mining, infrastructure and dam development
- Introducing measures to reduce current overreliance on fuelwood and increased use of biofuels

Special attention should be paid to the both logging and the development of dams, both of which result in deforestation. Large areas of forest are often submerged by reservoirs and in the interest of agricultural development and power generation, and dams and reservoirs are being constructed at a rapid rate across the country. Only a fraction of the watersheds above these dams are actively managed. A key driver of illegal logging is demand from wood-processing industries in China, Vietnam and Thailand. The Government of Myanmar enacted a log export ban in 2014 to slow the rate of deforestation. Nonetheless, significant cross-border trade has continued. As with other forests, mangroves have long been exploited

for their charcoal and firewood and are under intense pressure due to overexploitation and conversion of growing areas to other uses, particularly to fuel agricultural expansion or to become fish and shrimp ponds. These issues are particularly evident in Ayeyarwaddy Region where the large population has placed intense pressure on and degraded the mangroves.

**BUDGET SUMMARY AND IMPLEMENTATION SCHEDULE, OUTPUT 4.4**

	Description	Budget in million kyats
<b>4.4</b>	<b>The effects of environmental degradation mitigated in a sustainable manner</b>	<b>62,500</b>
4.4.1	Ensure and promote compliance with the Environmental Impact Assessment Act	1,000
4.4.2	Conduct systematic environmental assessment for disaster risk management	500
4.4.3	Develop and promote ecosystem-based approaches to Disaster Risk Reduction	61,000

	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
4.4.1										
4.4.2										
4.4.3										

## MULTI-SECTOR RECOVERY FRAMEWORK

Output	Activity	Budget in MMK (millions)	Sector	Responsible Agency	Timeframe
<b>Outcome 1 Improved Living Conditions and Access to Basic Services</b>					
<b>1.1 Rehabilitated and improved housing and settlements for flood-affected communities</b>	1.1.1 Design/adapt and disseminated build back better guidance	500	Housing	MoC	Short-term
	1.1.2 Housing and site inspection	1,825	Housing	MoC	Short-term
	1.1.3 Develop settlement improvement plans	1,025	Housing	MoC	Short-term
	1.1.4 Provide household NFIs	25,683	Housing	MoC	Short-term
	1.1.5 Provide housing assistance and recovery for repairs	196,723	Housing	MNREC	Short-term
	1.1.6 Provide technical support and labour	30,000	Housing	MoC	Long-term
	1.1.7 Reconstruct destroyed houses	72,171	Housing	MoC; MNREC	Short-term
	1.1.8 Community planning and preparation for site improvement and relocation	625	Housing	MoC	Short-term
	1.1.9 Relocation and resettle identified communities	26,637	Housing	MoC	Long-term
	1.1.10 Monitor the implementation of housing recovery	1,550	Housing	MoC	Long-term
	1.1.11 Facilitate private sector participation in housing recovery	300	Housing	MoC	Long-term
<b>1.2 Improved community access to safe water sources and appropriate sanitation facilities</b>	1.2.1 Provide disaster-affected persons with timely and dignified access to safe and appropriate emergency WASH facilities	1,069	WASH	MALI; MoH	Immediate
	1.2.2 Rehabilitate damaged WASH systems in communities using a BBB approach	30,000	WASH	MALI	Short-term
	1.2.3 Build comprehensive WASH policies, standards and regulations	1,075	WASH	various	Long-term
	1.2.4 Develop and implement robust WASH monitoring systems	1,500	WASH	MALI	Long-term
<b>1.3 Children have improved access to safe and child-friendly learning environments</b>	1.3.1 Clean affected schools	2,000	Education	MoE	Immediate
	1.3.2 Establish temporary learning spaces	500	Education	MoE	Immediate
	1.3.3 Provide textbooks, teaching and learning materials and school furniture	2,000	Education	MoE	Immediate
	1.3.4 Survey affected schools	500	Education	MoE	Short-term
	1.3.5 Revise standards and basic school designs to BBB specifications	--	Education	MoE	Short-term
	1.3.6 Reconstruct damaged/destroyed schools, including WASH facilities	74,154	Education	MoE	Short-term
	1.3.7 Develop and mainstream DRR into curriculum	6,000	Education	MoE	Long-term
	1.3.8 Organise seminars on DRR and resilience in education	50	Education	MoE	Long-term
	1.3.9 Conduct risk mapping and develop school preparedness plans	4,500	Education	MoE	Long-term
	1.3.10 Train teachers and students in life-skills and psychosocial support	50	Education	MoE	Long-term
	1.3.11 Conduct outreach to households with children out of school	2,000	Education	MoE	Long-term
	1.3.12 Provide stipends for households with children out of school	5,000	Education	MoE	Long-term
<b>1.4 Improved community access to adequate and appropriate health facilities</b>	1.4.1 Provide emergency healthcare services	5,389	Health	MoH	Immediate
	1.4.2 Conduct health and nutrition training	750	Health	MoH	Short-term
	1.4.3 Conduct hygiene and sanitation promotion	750	Health	MoH	Short-term
	1.4.4 Reconstruct and repair damaged health facilities	2,609	Health	MoH	Short-term
	1.4.5 Replenish medicine and equipment in health facilities	18,502	Health	MoH	Short-term

	1.4.6 Preposition medical supplies and mobile health teams	2,122	Health	MoH	Long-term
	1.4.7 Establish Public Health EOCs at state/region levels	214	Health	MoH	Long-term
	1.4.8 Construct standard hospitals	2,800	Health	MoH	Long-term
<b>1.5 Flood-affected persons have improved links with their surrounding communities and the rest of the country</b>	1.5.1 Repair and upgrade highways, state/regional roads and bridges	64,283	Transport	MoC	Long-term
	1.5.2 Repair and upgrade rural roads and bridges	72,296	Transport	MALI	Long-term
	1.5.3 Repair and upgrade railways, bridges, embankments and buildings	13,184	Transport	MoTransport	Long-term
	1.5.4 Repair and restore communications infrastructure	106,255	Connectivity	MoTransport	Long-term
	1.5.5 Repair electricity transmission lines and towers	654	Connectivity	MoEE	Long-term
	1.5.6 Repair power stations, substations and associated buildings	5,794	Connectivity	MoEE	Long-term
	1.5.7 Repair generators	416	Connectivity	MoEE	Long-term

Output	Activity	Budget in MMK (millions)	Sector	Responsible Agency	Timeframe
<b>Outcome 2 Strengthened livelihoods and increased access to capital and work opportunities</b>					
<b>2.1 Harmful coping mechanisms are mitigated amongst flood-affected communities</b>	2.1.1 Identify community assets for cleaning, repair and rehabilitation	8,919	Cash	MALI	Short-term
	2.1.2 Provide cash-for-work and cash grants for vulnerable groups	276,901	Cash	MoSWRR	Short-term
<b>2.2 Increased, sustainable income-generation capacity and productivity for affected households involved in agriculture</b>	2.2.1 Distribute paddy seeds	6,423	Agriculture	MALI	Short-term
	2.2.2 Distribute seeds and seedlings for horticultural crops	2,000	Agriculture	MALI	Short-term
	2.2.3 Distribute compound fertiliser	15,656	Agriculture	MALI	Short-term
	2.2.4 Support the provision of agricultural extension services	1,146	Agriculture	MALI	Medium-term
	2.2.5 Conduct gender training for agricultural extension workers	500	Agriculture	MALI	Medium-term
	2.2.6 Establish mobile seed processing plants	300	Agriculture	MALI	Medium-term
	2.2.7 Establish cold storage facilities	3,250	Agriculture	MALI	Medium-term
	2.2.8 Provide hermetic seal bags	3,840	Agriculture	MALI	Medium-term
	2.2.9 Provide moisture metres	199	Agriculture	MALI	Medium-term
	2.2.10 Provide combine harvesters	2,310	Agriculture	MALI	Medium-term
	2.2.11 Provide tractors and associated implements	7,163	Agriculture	MALI	Medium-term
	2.2.12 Provide small farming implements	14,153	Agriculture	MALI	Medium-term
	2.2.13 Provide paddy dryers	7,800	Agriculture	MALI	Medium-term
	2.2.14 Land reclamation and other amelioration works	50,000	Agriculture	MALI	Long-term
	2.2.15 Repair dams, spillways, weirs, embankments and irrigation systems	19,955	Agriculture	MALI	Medium-term
	2.2.16 Install pumps and tubewells for irrigation	36,150	Agriculture	MALI	Long-term
	2.2.17 Dredge and raise river banks in vulnerable river basins	47,430	Agriculture	MALI	Long-term
	2.2.18 Provide refinancing support to flood-affected MADB clients	42,204	Agriculture	MADB	Medium-term
	2.2.19 Provide soft lending support to flood-affected households and communities	151,810	Agriculture	MADB	Medium-term
<b>2.3 Increased, sustainable income-generation capacity and productivity for affected households involved in livestock and fisheries</b>	2.3.1 Rehabilitate animal shelters and other livestock infrastructure	528	Livestock	MALI	Medium-term
	2.3.2 Distribute livestock and build capacity in animal management and healthcare	35,850	Livestock	MALI	Medium-term
	2.3.3 Provide animal feed, vaccinations and veterinary services	3,687	Livestock	MALI	Medium-term
	2.3.4 Provide feed, fingerlings and medicine for aquaculture facilities	32,635	Fisheries	MALI	Medium-term
	2.3.5 Replace lost fishing gear, equipment and boats	30,191	Fisheries	MALI	Medium-term
	2.3.6 Rehabilitate aquaculture facilities and ponds	244	Fisheries	MALI	Medium-term
<b>2.4 Improved access to skills training, business development and financial services</b>	2.4.1 Develop and conduct skill development programmes for enterprises, including financial literacy and entrepreneurship	9,100	Industry & Commerce	MLIP	Medium-term
	2.4.2 Develop and conduct skill development programmes for alternative livelihoods	42,600	Industry & Commerce	MLIP	Medium-term
	2.4.3 Establish and deploy mobile skill-development teams	2,657	Industry & Commerce	MLIP	Medium-term
	2.4.4 Study the special needs of female-headed households in affected areas	500	Industry & Commerce	MLIP	Medium-term
	2.4.5 Provide credit guarantees and finance cooperative lending to micro-, small-, and medium enterprises	150,000	Industry & Commerce	MoPF	Medium-term

<b>Output</b>	<b>Activity</b>	<b>Budget in MMK (millions)</b>	<b>Sector</b>	<b>Responsible Agency</b>	<b>Timeframe</b>
<b>Outcome 3 Increased social protection and accountability to flood-affected communities</b>					
<b>3.1 Flood-affected persons receive relevant programme and disaster information in a timely, accessible and accurate manner</b>	3.1.1 Produce and disseminate sector-based information materials	1,000	Accountability	MoSWRR	Throughout
	3.1.2 Inform communities about their rights and how they may provide feedback	300	Accountability	MoSWRR	Throughout
	3.1.3 Strengthen public broadcasting services	6,000	Accountability	MoTransport	Throughout
	3.1.4 Orient and sensitise staff on community accountability	500	Accountability	MoSWRR	Throughout
<b>3.2 Flood-affected persons are consulted and participate throughout the recovery programme cycle</b>	3.2.1 Coordinate sector-based consultations with affected communities	1,500	Accountability	MoSWRR	Throughout
	3.2.2 Establish criteria for and conduct beneficiary selection, in consultation with affected communities	1,800	Accountability	MoSWRR	Throughout
<b>3.3 Flood-affected persons are enabled to provide informed, confidential feedback about Recovery Activities</b>	3.3.1 Establish suggestion boxes, help desks and other relevant feedback and complaints mechanisms	1,500	Accountability	MoSWRR	Throughout
	3.3.2 Establish and maintain database of community feedback and complaints	500	Accountability	MoSWRR	Throughout
	3.3.3 Establish collection and referral mechanisms for sensitive complaints	500	Accountability	MoSWRR	Throughout
<b>Output</b>	<b>Activity</b>	<b>Budget in MMK (millions)</b>	<b>Sector</b>	<b>Responsible Agency</b>	<b>Timeframe</b>
<b>Outcome 4 Government Capacity to Decrease Vulnerability to Disaster and Climate Risks is Strengthened</b>					
<b>4.1 Local and national government disaster risk reduction and climate change adaptation plans are developed</b>	4.1.1 Conduct community risk mapping	1,000	DM	MosWRR	Long-term
	4.1.2 Develop disaster management plans at all levels in all sectors	1,000	DM	MosWRR	Long-term
	4.1.3 Develop national public awareness on disaster management	609	DM	MosWRR	Long-term
	4.1.4 Establish safe evacuation shelters and centres	2,000	DM	MoC	Long-term
<b>4.2 Government coordination and information sharing systems are strengthened</b>	4.2.1 Develop disaster management financing instruments	4,550	DM	MoPF	Long-term
	4.2.2 Improve the reporting, confirmation and analysis of disaster and progress data	150	DM	MoSWRR	Long-term
	4.2.3 Improve e-government infrastructure and platforms	1,500	DM	MoSWRR	Long-term
	4.2.4 Establish platforms to share disaster risk data	1,500	DM	MoSWRR	Long-term
<b>4.3 Disaster preparedness and mitigation facilities and structures are established and strengthened</b>	4.3.1 Strengthen EOC and RCC systems and network	6,000	DM	MoSWRR; MoC	Long-term
	4.3.2 Capacity building and training of civil servants in disaster management	6,000	DM	MoSWRR	Long-term
	4.3.3 Improve multi-hazard early warning systems	2,000	DM	MoSWRR	Long-term
	4.3.4 Modernise hydro-meteorological systems	4,000	DM	MoTransport	Long-term
	4.3.5 Develop and employ hazard maps and multi-hazard risk atlas	2,000	DM	MoSWRR	Long-term
	4.3.6 Strengthen disaster management training centre	1,572	DM	MoSWRR	Long-term
<b>4.4 The effects of environmental degradation are mitigated</b>	4.4.1 Ensure and promote compliance with the Environmental Impact Assessment	1,000	DM	MNREC	Long-term
	4.4.2 Conduct systematic environmental assessments	500	DM	MNREC	Long-term
	4.4.3 Develop and promote ecosystem-based approaches to DRR	61,000	DM	MNREC	Long-term

There is an additional MMK 79,147 million or 4% of the budget allocated to States and Regions who experienced comparatively less severe effects and were not covered by the National Recovery Programme such as Kayin, Kayah, Mon and Tanithyari. The total budget of the National Recovery Programme is MMK 1.978 trillion.



*photo credit: Ministry of Transport*

## D. TARGETTING MECHANISMS AND BENEFICIARY SELECTION

## **Introduction**

The delivery of Recovery Assistance under the National Recovery Programme requires balance between governance and participation. Nowhere is this balance more necessary than in the employ and establishment of targeting mechanisms at the National, State and Region, and Community levels. This is to ensure that not only is the allocation of limited resources fair and equitable, but also that decision-making and programme direction is devolved as much as possible to those most affected by the disaster.

The Government believes in the innate resilience of the Myanmarese people and views the decisions and actions of the affected families and communities themselves will be the most important factor in their recovery. In that respect, the Government views its role as the facilitator of local recovery and will seek to support the inclusion and participation of all affected persons in decision-making processes, especially in the selection of beneficiaries.

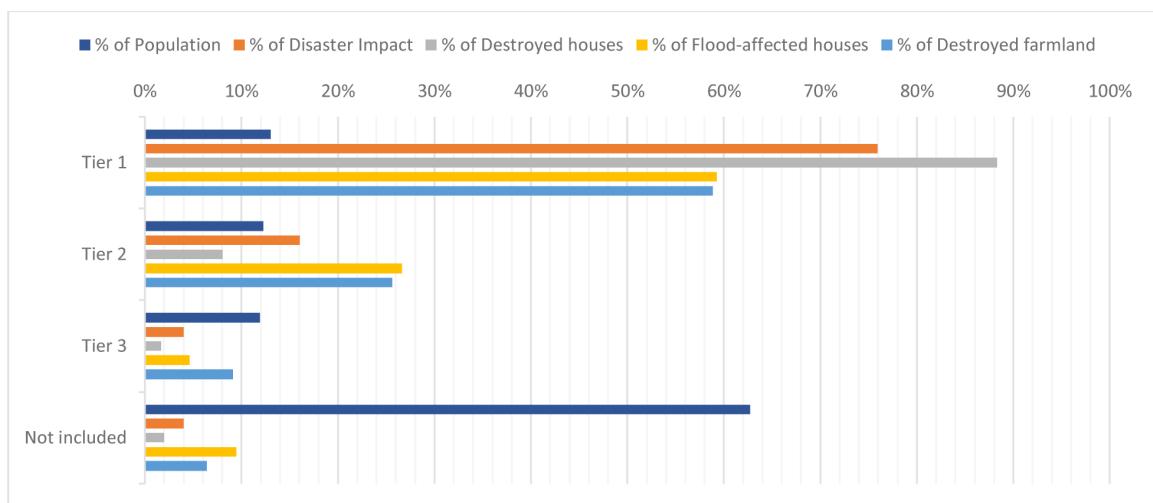
Fairness and Equitability are key in securing the buy-in and participation of all stakeholders in the implementation of the National Recovery Programme as all stakeholders must be assured of the impartiality and soundness of the resource allocation process, especially in the face of competing demands. The Geographic Prioritisation Tools are meant to address this and have helped establish national-level priorities. Whilst integrated and area-based planning tools will be applied at the State and Regional levels to bridge national and community targeting mechanisms.

The clear establishment of targeting mechanisms also contributes to the Recovery Principle of effectiveness. The National Recovery Programme intends for these processes to be transparent and explainable. Allocation and beneficiary selection are some of the most contentious processes that recovery programmes undertake and it is in the interest of all affected persons that the implementation of the National Recovery Programme adheres to and abides by accurate and understandable targets.

## D1. GEOGRAPHIC PRIORITISATION

To aid targeting and allocation, the Recovery Coordination Centre developed a model to rank all the affected townships based on a combination of indicators: destroyed houses, flood-affected houses, destroyed farmland, direct economic losses per capita and GDP per capita.

Upon analysing the damages and losses across all 218 townships which reported being adversely affected by the disaster, it was discovered that the distribution of the damage was quite uneven, with a disproportionate amount of the disaster's impact occurring in relatively few areas. 96% of the damage and losses – defined by the number of destroyed and flood-affected houses, amount of destroyed farmland and direct economic losses – occurred in these 80 townships. These priority townships are the targets of the National Recovery Plan.



However, as can be seen from the chart above, the distribution of the disaster's effects across the 80 priority townships also varies greatly. They have been further disaggregated into 3 tiers, corresponding to their share of the damage and losses, for easier management:

Just 30 townships contain almost 76% of the effects of the disaster: the first tier of townships, with a total population of 4,788,195, have 18,740 totally-damaged/destroyed houses (88.3% of total number); 290,278 flood-affected houses (59.25% of the total); and 58.83% of all the destroyed farmland or 498,605 hectares. The gravest and most severe damage from the disaster was concentrated in these areas. Accordingly, these areas should be allocated a proportionate share of recovery funding. Townships in this tier will receive all levels of interventions. Interventions are expected to continue in these areas for the longest time.

The 30 townships in the second tier collectively have a population of 4,500,913. They contain 16.05% of the effects of the disaster. Across these 30 townships, there are 1,703 destroyed houses (8.03% of the total); 130,512 flood-affected houses (26.64%); and 218,186 hectares of destroyed farmland (32%). Whilst the damage in these areas is not as severe as in tier 1, a combination of household- and community-level interventions is still recommended for these areas.

Tier 3 consists of 20 townships which collectively have a population of 4,521,675 and contain 1.67% of the damage and losses. They contain 353 totally-damaged houses (2% of the total); 22,775 flood-affected houses (4.65%); and 77,180 hectares of destroyed farmland (9.10%). These areas should have the smallest per capita recovery spending – a small cash-for-work provision and minor repairs are recommended for these areas.

The 138 townships not included in this plan represent 4% of the overall damages and losses but 22,872,771 or 62.35% of the population, including 425 destroyed houses, 46,332 flood-affected houses and 54,500 hectares of destroyed farmland. 4% of the budget has been set aside for specific projects targeting areas not included under the National Recovery Programme and for which relief-phase interventions proved insufficient to meet the needs: these areas include Kayah, Kayin, Mon and Tanithyari. These interventions should be proposed and managed separately, in recognition of the fact that their contexts were not taken into account in the development of this plan.

## **Methodology**

The model used to rank the townships was based on two criteria:

How much damage could be concentrated in the top few townships: this was the primary criteria for the success of a model. Across multiple indicators, each considered model and variation thereof was tested before settling on the one employed, which is able to capture 76% of the disaster's effects in 13% of the population whilst still accounting for poverty.

Simplicity: an overfit model that could only work for this dataset and could not accommodate new information was not desirable. The model also employs a limited pool of indicators, as much as possible. Damage to schools or other buildings were not included in the model, though it was of interest to see whether damage across these indicators could be captured by the model as well. It is also important that any criteria used must be easily explainable to community members.

The key indicators selected for the model were the number of totally-damaged houses, the number of all flood-affected houses, the amount of destroyed farmland, direct economic losses per capita and GDP per capita. All indicators were first converted into indices where each value was recorded as a percentage of the sample maximum. The specific formula used was:

[Average (destroyed houses index, damaged houses index, destroyed farmland index, direct economic losses per capita index)] \* GDP per capita index

Certain things hold true for the final model employed:

It accounts for the extent of damage: if one townships with the same population size received more damage than other, the township with more damage would be ranked higher.

It accounts for intensity: if two townships received the same amount of damage, the township in which a larger proportion of the population was affected would have a higher rank.

It accounts for poverty: If two townships received the same amount of damage and have the same population size, the poorer township would have a higher rank.

It uses poverty data differently from the other indicators: townships which have received very little damage were lowly ranked, regardless of whether they were poor or not; though their ranks would be comparatively higher if they were poorer

Additional information on the ranking and full Recovery dataset on which these calculations were based is available from the Recovery Coordination Centre.

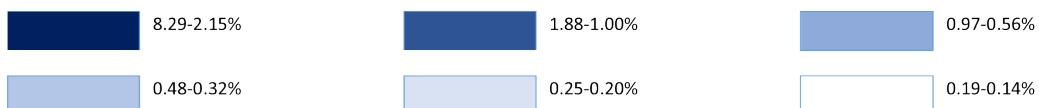
### Priority Townships

	Rakhine	Chin	Ayeyarwaddy	Sagaing	Magway	Yangon	Bago
Tier 1	Buthidaung	Tedim	Ingapu	Kale	Pwintbyu	Taikkyi	Monyo
	Maungdaw	Paletwa	Yegyi	Tamu	Sidoktaya		
	Mrauk-U	Mindat	Myanaung	Indaw			
	Ann	Hakha	Hinthada	Kalewa			
	Ponnagyun	Tonzang	Kyaunggon				
	Rathedaung	Kanpetlet	Zalun				
	Minbya	Falam					
	Kyauktaw						
	Pauktaw						

	Bago	Ayeyarwaddy	Sagaing	Chin	Magway	Rakhine	Kachin	Yangon
Tier 2	Thayarwady	Nyaungdon	Kawlin	Matupi	Gangaw	Sittwe	Mogaung	Htantabin
	Letpadan	Danubyu	Katha	Thantlang	Ngape	Myebon		
	Shwedaung	Lemyethna	Hkamti		Salin	Kyaukpyu		
	Minhla	Pantanaw	Homalin		Aunglan			
	Padaung	Thabaung	Mingin					
	Gyobingauk	Kangyidaunt	Kani					
		Kyangin						

	Bago	Sagaing	Shan	Mandalay	Ayeyarwaddy	Magway	Yangon	Kachin
Tier 3	Bago	Monywa	Tachileik	Thabeikkyin	Pathein	Thayet	Hlegu	Hpakan
	Okpho	Wetlet	Mongmit	Nyaung-U				Mohnyin
	Shwegen	Kanbalu			Singu			
	Thegon							
	Kyauktaga							
	Pyay							
	Ngaunglebin							

Percentage of Total Damage and Losses per Township

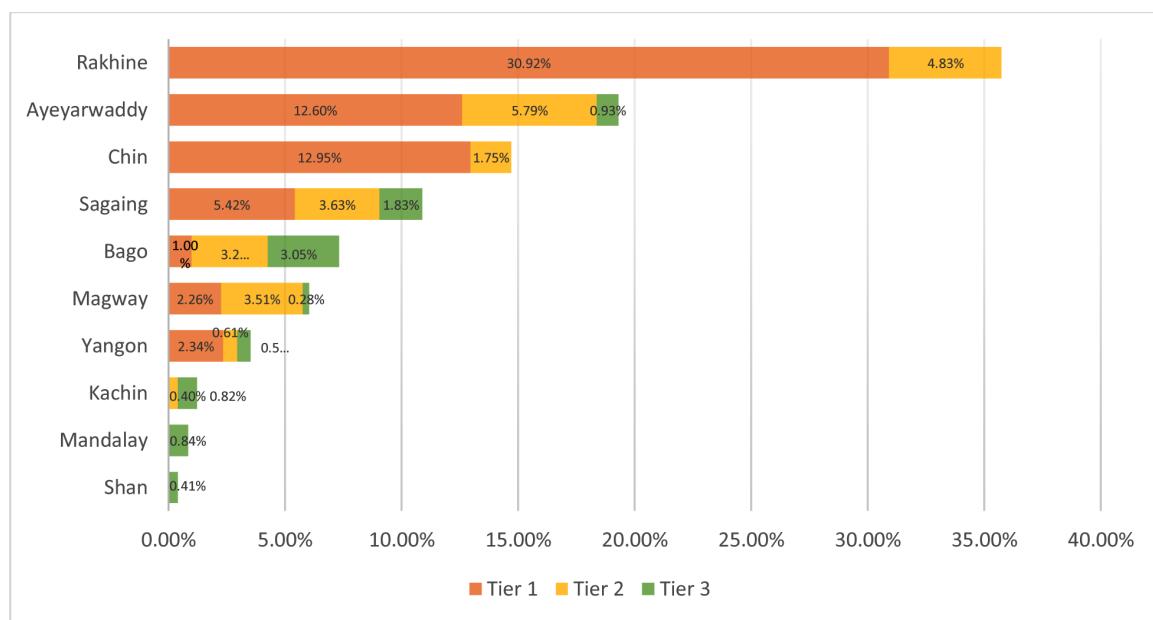


Ayeyarwaddy Region	Danubyu Hinthada Ingapu Kangyidaunt Kyangin Kyaunggon Lemyethna	Myanaung Nyaungdon Pantanaw Thabaung Yegyi Zalun	Bago Region	Bago Gyobingauk Kyauktaga Letpadan Minhla Monyo Ngaunglebin	Okpho Padaung Pyay Shwedaung Shwegen Thayarwady Thegon	Chin State	Falam Hakha Kanpetlet Matupi Mindat	Paletwa, Tedin, Thantlang, Tongzang
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Kachin State	Hpakan Mohnyin	Mogaung	Rakhine State	Ann Buthidaung Kyauktaw Maungdaw Minbya	Mrauk-U Myebon Pauktaw Ponnagyun Rathedaung Sittwe	Sagaing Region	Indaw Kanbalu Kale Kalewa Kani	Mingin Monywa Tamu Wetlet
Magway Region	Aunglan Gangaw Ngape	Salin Sidoktaya Thayet				Shan State	Mongmit	Tachileik
Mandalay Region	Nyaung-U Singu	Thabeikkyin	Sagaing Region	Hkamti Homalin	Katha Kawlin	Yangon Region	Hlegu	Taikkyi

## Recommended Budget Breakdowns by State and Region

The allocations below are based a State or Region's share of the disaster impact, as well as its share of the population within the 80 priority townships; these targets seek to guide the allocation of activities and State/Regional Planning. It should also be noted that the implementation of both household- and community-level interventions should be concentrated in townships in Tier One and then Tier Two, with townships in Tier Three mostly receiving cash-for-work interventions and minor repairs.



## Target Population and Household Vulnerability

Natural disasters, displacement, climate change and sudden loss of access to land are amongst the most important factors leading to household vulnerability amongst smallholder farmers and rural landless households.

According to the Strategic Agricultural Sector and Food Security Diagnostic for Myanmar (Michigan State University and Myanmar Development Resource Institute), the highly skewed distribution of cultivable farmland is strongly correlated with poverty. It was estimated that rural landlessness ranged between 50-80% in the Delta Zone and 25-45% in the Dry Zone and Hilly areas, where the land pressure is lower.

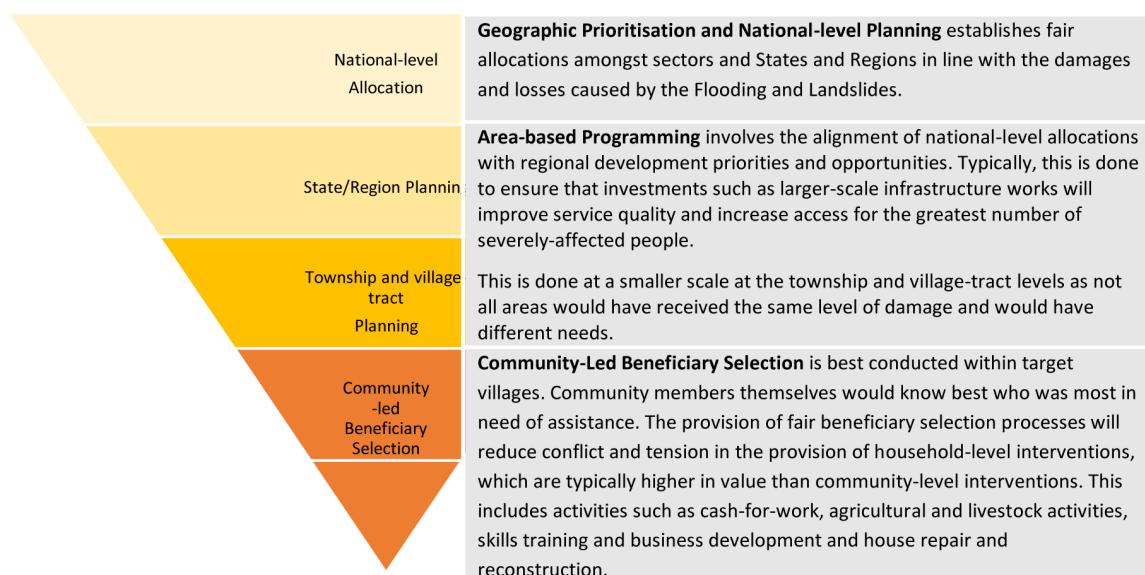
And whilst the resolution of longstanding issues surrounding the reform of agricultural landholdings is beyond the scope of the National Recovery Programme, rural landless and functionally landless households as well as smallholder farmers face a unique range of vulnerabilities to shocks and stresses, many of which have been exacerbated by the flooding.

Other important factors in household vulnerability currently being faced by smallholder farmers and rural landless households include price volatility, lack of access to affordable financial services, disease, conflict and seasonal water shortages (in the Dry Zone). One of the primary motivations in establishing household-level targets is to ensure that corrective and mitigative actions may be taken to limit the growth in the number of poor and vulnerable households due to this disaster.

To further aid planning, below are the recommended State and Region household-level target populations, broken down by State and Region and Tier.

<b>Target Population by State and Region</b>					
State/Region	Estimated Target Population	Target Pop. Tier 1	Target Pop. Tier 2	Target Pop. Tier 3	Target Households
Ayeyarwaddy	<b>615,273</b>	278,085	255,485	81,702	<b>156,550</b>
Bago	<b>450,220</b>	22,785	149,015	278,421	<b>110,073</b>
Chin	<b>433,374</b>	341,301	92,074	-	<b>88,011</b>
Kachin	<b>107,140</b>	-	21,092	86,048	<b>22,053</b>
Magway	<b>236,168</b>	51,306	159,515	25,347	<b>57,896</b>
Mandalay	<b>80,773</b>	-	-	80,773	<b>18,444</b>
Rakhine	<b>995,824</b>	758,741	237,083	-	<b>221,679</b>
Sagaing	<b>509,654</b>	138,136	185,104	186,415	<b>108,092</b>
Shan	<b>39,496</b>	-	-	39,496	<b>8,940</b>
Yangon	<b>134,994</b>	53,949	28,367	52,679	<b>32,453</b>
<b>Total</b>	<b>3,602,917</b>	1,644,302	1,127,735	830,880	<b>824,192</b>

In addition to geographic prioritisation, the National Recovery Programme also makes use of beneficiary selection and area-based programming as targeting mechanisms, which will be detailed in the next two sections. Together, this combination of geographic prioritisation, area-based programming and community-led beneficiary selection spans the spectrum between governance (top down) and participation (bottom up) in targeting mechanisms. And at each stage below national-level geographic prioritisation, additional adaptation and contextualisation occurs, in line with individual contexts and needs.



## D2. AREA-BASED PROGRAMMING

The Government of Myanmar advocates for the use of area-based approaches in state-and-region-level planning. Recommendations have been provided on the breakdown on damages and losses across States and Regions, but it is the belief of the Government of Myanmar that recovery must be both nationally and locally driven. And there is a need to empower affected communities, families and State and Region Governments to take recovery into their own hands.

### Distribution of Damage and Outliers

A simple ranking, like the list of priority townships on page 108, arranged for ease of interpretation, is the briefest summary of a very wide range of different contexts which were affected by the disaster in markedly different ways.

The type of disaster damage varied widely for a number of areas, with several areas experiencing large impacts spread over relatively small populations whilst others experienced lower per capita losses but experienced widespread and large scale damage and destruction. Townships in Tier Two and Tier Three experienced much smaller variation in damage; but due to a feature of the prioritisation model employed, townships included in Tier One include outliers of all kinds:

- a) High intensity of damage: these include Mindat, Tedim, Hakha and Paletwa. These areas have extremely high losses per capita and a far larger proportion of their housing stock has been destroyed. Greater intensity of damage usually necessitates higher per capita recovery spending; household-level recovery is also much more difficult when a greater proportion of one's surrounding community has been severely-impacted.
- b) Widespread damage: these include Mrauk-U, Pwintbyu, Kale, Taikkyi. Whilst per capita losses are comparatively lower, the sheer number of affected persons, destroyed farmland and damaged housing in these areas mean that recovery there requires large-scale interventions aimed at large numbers of beneficiaries.
- c) A combination of both: Buthidaung, Ann, Ponnagyun and Rathedaung have suffered both intensive and extensive damage. These areas will require the greatest care in planning and implementation as the combination of intensity and severity has likely significantly eroded local capacity to recover, presenting the greatest challenges to successful recovery.

Additionally, though many of the 80 townships are poor – fifty-five have GDPs per capita of which translate to less than international poverty line of USD 1.90 a day – there is still a wide variance in the depth of their poverty. Tedim, Paletwa and Maungdaw are the poorest of all affected areas, with GDPs per capita below MMK 300,000. Faring marginally better, Mindat, Buthidaung, Falam and Matupi all have incomes approximately half of the average for all affected areas.

Chin's low GDP per capita is further explained by its age dependency ratio: Paletwa, Tedim, Matupi, Thantlang, Tonzang, Mindat and Kanpetlet all have rates above 80%. Phrased differently, for every dollar income is raised in these areas, GDP per capita would increase by less than 20 cents. In light of these demographic challenges, poverty reduction is likely to occur only if labour productivity gains are paired with robust increases in social spending and opportunities for non-farm employment.

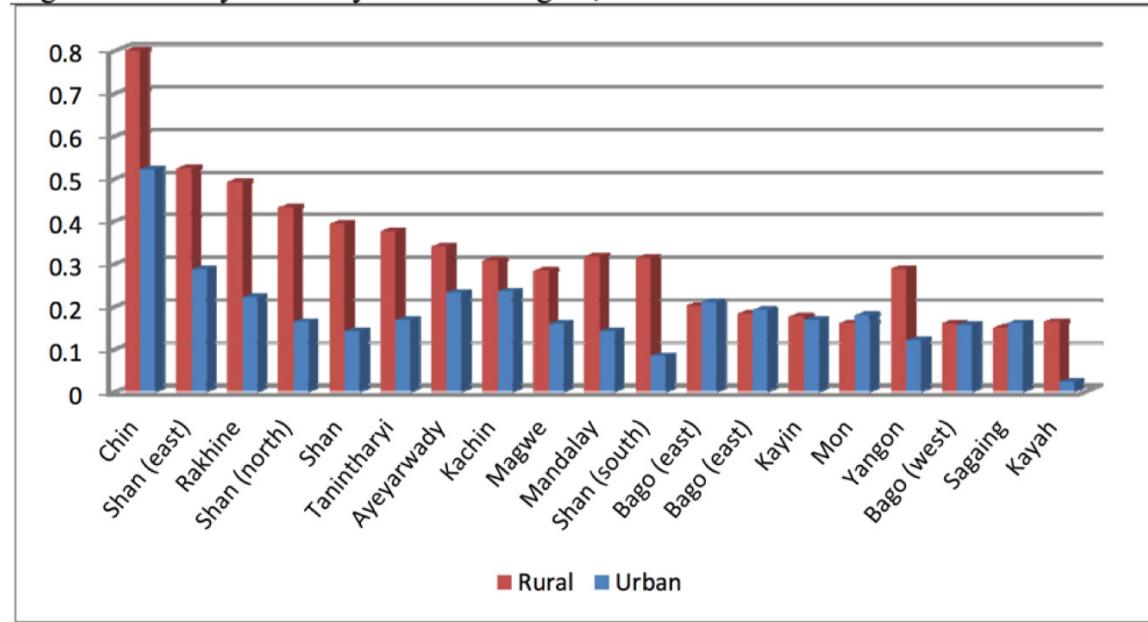
The affected areas targeted by the National Recovery Programme come from a diverse range of contexts, geographies and climates. Whilst pre-existing vulnerability and the severity of the physical impact of the disaster are to account for the differing levels of damage and losses, numerous other socioeconomic, cultural and spatial will determine the trajectory that recovery will take in these areas. These come together in highly-complex patterns of human settlement, land use and poverty that are best understood by those in the affected communities themselves.

This is why the selection of Villages and Village tracts was regarded as beyond the scope of the National Recovery Plan as it is not possible to account, from Naypyidaw, for the variance in extent and intensity of damage; vulnerability; and other local distinctions, such as remoteness, availability of natural resources or sociocultural heritage and practices.

Rural post-disaster Recovery requires a holistic, integrated approach, involving community participation and a wide range of interventions including natural resource management, credit, SME development, infrastructure and skills training. Based on their local knowledge and experience as well as a careful examination of the impacts of the disaster, State and Region governments should continue the prioritisation and planning process down to Village-tract and Village levels. After which, the pool of potential beneficiaries becomes small enough to use the community-based beneficiary selection processes. As detailed in Output 1.5, State and Region Governments are to work with Sectors to develop detailed implementation plans which include village-level targets and allocations.

## Rural and Urban Development

**Figure 8. Poverty Levels by State and Region, 2009/10**



Source: IHLCA 2011.

Due to the large proportion of people living in rural areas, and the vast majority of poor households coming from rural areas, there is a stark need to bring the benefits of increased openness and economic freedom to rural areas. The disparities between living conditions and access in urban and rural areas are stark: 72% of rural villages are un-electrified, according to the Ministry of Electricity and Energy and an even smaller proportion (16-18%) of rural households have access to power. People in rural areas have markedly lower access to safe drinking water and sanitation. There are also large differences in educational outcomes and attainment: the secondary-school attendance rate in rural areas (34%) is half that in urban areas (69%).

According to the International Monetary Fund, investments in infrastructure and economic growth are deeply linked. However, it is often difficult to redirect resources away from areas likely to generate income and prosperity and contribute to the development of the country as whole such as urban areas. Budget constraints often limit the scope of public investment in social and economic infrastructure in poorer, more isolated areas.

To inclusively recover whilst reducing poverty and income inequality, urban and rural areas must be addressed in a comprehensive manner which seeks to facilitate the creation of demand on both sides. Investments in farm productivity should be paired with increased access to transportation, electrical and telecommunications infrastructure as well as financial and business development services, especially in adjacent urban areas.

In a position paper from the Planning Commission of Tanzania, it was observed that experience in 51 countries during 1980-2004 that secondary cities and towns are able to reduce poverty to a greater extent than large and primary cities do. Commonalities across the assessed countries led to the determination that the development of secondary towns and their rural hinterlands would be an effective way to accelerate poverty reduction. According to the OECD, the potential role of small and intermediate urban centres in regional and rural development include:

- Acting as centres of demand/markets for agricultural produce, either for local consumers or as links to national and export markets. Access to markets is a prerequisite to increasing rural agricultural incomes, and the proximity of local small and intermediate centres plays a key role.
- Acting as centres of production and distribution of goods and services to rural areas. Concentration of services is assumed to reduce costs and improve access to a variety of services, both public and private as well as for both rural households and enterprises.
- Becoming centres for the growth and consolidation of rural non-farm activities and employment through the development of micro-, small- and medium-sized enterprises or through the relocation and opening of branches of large private or State Economic Enterprises.
- Attracting rural migrants from the surrounding region through demand for non-farm labour, thereby decreasing pressure on larger urban centres.

The analysis of the Planning Commission of Tanzania indicated that the income of the people who moved to cities there increased by an average of 230% over an 18-year period, whilst those found in rural farming grew by 53%, translating to an average consumption per adult 2.6 times higher in urban areas than in rural ones, with those moving to towns and to off-farm activities falling between the two extremes.

However, though people who moved to urban areas – on the whole – had higher incomes than those who moved to towns, towns were able to attract and accommodate 4 times more people than large cities and accounted for twice as much reduction poverty. Larger cities were also found to be generally less accessible to rural migrants.

Whilst towns and secondary cities might be excellent sources of economic growth and good targets for community-level interventions and investments, it is important to ensure that household-level activities are well-targeted so that existing inequalities and disparities are not further exacerbated.

Productive and protective community-level investments in towns and secondary cities will accelerate poverty reduction in an economically-viable manner but those in rural areas must also be provided with the skills and opportunities to make use of new opportunities around them. The infrastructure rehabilitation activities proposed in this section should also align closely with regional development, poverty alleviation plans, the National Transport Development Plan as well as with the livelihoods interventions under Outcome 2.

### D3. BENEFICIARY SELECTION

Beneficiary selection is usually the most contentious of all processes undertaken as part of response and recovery programmes. The establishment of eligibility standards and beneficiary selection must be carried out in a consultative, participatory manner to reduce tensions amongst community members over scarce resources and not exacerbate existing problems. In order to do this, Recovery Implementers must take proactive action to ensure that individuals and disaster-affected populations have equitable access to assistance.

It was noted in the PFLNA that numerous village administrations tended towards the equal redistribution of targeted aid: this is not in line with the stated Recovery Principles – the Government of Myanmar is committed to the prioritisation of the most vulnerable. Failure to target effectively is a poor use of limited resources that leads to excessive rates of both exclusion errors where deserving persons do not receive what they are entitled to, and inclusion errors where the efforts of households with more capacity are duplicated with government assistance. Vulnerability is influenced by geographic location; displacement; cultural and social power dynamics; access to information and education; access to material and financial resources; access to services and infrastructure; social support networks; as well as specific individual, family or group characteristics.

Beneficiaries for Recovery Activities shall be selected from the pool of all persons who have been adversely affected by the flooding and landslides, especially:

- Households whose means of livelihoods has been greatly disrupted or destroyed
- Households whose homes have been severely damaged or destroyed
- Displaced households
- Households who are poor
- Households who are food insecure
- Households who have not received assistance from other sources (government entities, NGOs, INGOs or UN)
- Households who had already been affected by pre-existing humanitarian crises
- Female-headed households
- Elderly-headed households
- Child-headed households
- Households where income is inconsistent or the main form of livelihoods is casual labour
- Households with pregnant-and-lactating women
- Households with people living with disabilities or life-threatening illnesses
- Households with children under 5

These are the recommended priority beneficiary selection criteria for all interventions under the National Recovery Programme. Additional eligibility criteria may be included for different types of activities, i.e. households who receive house reconstruction have homes which have totally collapsed.

This plan recommends that all beneficiaries be selected through consultation and partnership with community leaders and the wider community. The Government of Myanmar also recognises the need to ensure that vulnerable groups are included in all aspects of the Recovery Process, participating equally and having their particular needs taken into account. If information about services and processes are not widely disseminated, many vulnerable and marginalised groups can fail to appropriately register for, receive services and participate in different aspects of the Recovery Process.

In many cases, the most vulnerable are persons or households who have a combination of priority selection criteria. It is also important to note that these might not be the only criteria in determining vulnerable groups. In order to develop to select beneficiaries for household-level interventions, such as cash-for-work, please make use of the following process to avoid creating tension and accusations of unfairness:

- 1) Use the general selection criteria (above) as the starting point; inform community leaders that these criteria have developed by the National Government as the most common characteristics of household vulnerability.
- 2) Test the selection criteria for validity and appropriateness in the community and develop a final list of criteria.
- 3) Use the final list of criteria to develop a DRAFT beneficiary list with community leaders.
- 4) Post the DRAFT beneficiary list and final list of criteria publicly.
- 5) Set up mechanisms (community meetings, phone calls, anonymous suggestion box, etc.) for community members to provide feedback about the DRAFT beneficiary list.
- 6) Collect and analyse feedback.
- 7) Conduct a community meeting to discuss feedback and create the FINAL beneficiary list.
- 8) Conduct beneficiary verification.

#### ***Guidelines for Beneficiary Selection***

- Ensure that vulnerable groups are represented and their voices heard in decision making processes. Though it is important to note that even when vulnerable groups participate in committees or leadership structures, discriminatory attitudes might continue to marginalise their role. They may be provided with few opportunities to speak and their input may not be listened too. Should this happen, alternative consultation techniques should be considered i.e. having separate consultations for men and women.
- Consultations and information provision are to be conducted in the local language of the area.
- Do not rely on civil or legal documents for beneficiary selection, as reliance on these may exclude the most vulnerable, many of whom lack documentation.
- Do not base beneficiary selection on formal land ownership as many of the most vulnerable live in situations of landlessness or insecure tenure.
- Information on distributions, assistance or services and beneficiary selection criteria must be accessible to all, this includes making provisions for those living with disabilities or are illiterate.
- Carry out spot checks and monitoring to check that all beneficiaries who have received or will receive assistance meet the established beneficiary criteria.



*photo credit: Ministry of Natural Resources and Environmental Conservation*

## **E. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS AND RESOURCE MOBILISATION**

## Introduction

All aspects, including this section, of the National Recovery Plan shall be reviewed periodically and adjusted according to the findings. This is intended to test the plan for validity and allow it to account for errors or changes in the context.

More thorough reviews and revisions shall be conducted twice a year, once at the mid-point and at the end of the fiscal year and new versions of the Recovery Programme are to be presented for approval to the National Natural Disaster Management Committee.

It should additionally be noted that many institutional and implementation arrangements have been included under the Recovery logframe itself as the quality and progress of these arrangements should be monitored alongside the implementation of field operations. The operationalization of this plan will require significant commitments to capacity building as well as the need to assess the appropriateness of proposed management structures, their success is as vital to the National Recovery Programme and have largely been included under Outcome 4.

The management, planning and operationalization of the National Recovery Programme has been distributed out amongst a wide range of actors, including State and Region Governments, Union Ministries, the Private Sector and Civil Society. The free flow of information and decisions is necessary for the effective management of the Programme and allow it to mitigate difficulties and challenges. Three different levels of decision-making have been identified:

- Operational decisions include the where and how distributions should be conducted, project logistics, timelines and procurement as well as the coordination between different interventions. These should be made directly by the entities and agencies implementing the intervention.
- Programmatic decisions occur at the Sectoral level and include whether projects have met the specified standards, what possible corrective action could be taken as what changes should be made to the programme design within each Sector.
- Strategic decisions occur at the Recovery Coordination Committee and the National Natural Disaster Management Committee and include the approval of material changes to the budget as well as overall direction and strategy of the National Recovery Programme.

Though 2008 Constitution devolved certain responsibilities to the governments of the States and Regions and additional decentralisation is expected to make spending more efficient and responsive to public needs, these gains are unlikely to occur in the short term. The relatively low technical capacity of subnational governments indicates that to require both operational and programmatic decision making to occur at the State and Region level might overburden certain subnational entities. The involvement of Union Ministries in Programmatic decisions is additionally necessary as they have the highest concentrations of technical expertise in the country.

The separation of programmatic (quality control) and operational (implementation) decision-making processes is intentional. The recognition and resolution of structural and institutional limitations is also necessary for the successful implementation of the National Recovery Programme. According to the UNDP toolkit for Area-Based Approaches, the lack of capable local authorities

and mechanisms for decentralisation presents great risks to successful implementation, particularly in contexts with traditions of highly-centralised governance where local authorities might not have the legal, administrative and financial tools to provide substantial support to local development.

These three differing levels of decision making are each present in the major management functions of the National Recovery Programme: Coordination, Quality Assurance, Financial Management and Implementation. Improvements across all these functions are necessary for the appropriate and adequate provision of Recovery Assistance.

## **E1. COORDINATION**

### **Internal Communication**

Internal communication is a fundamental need for the establishment of new structures and processes in recovery programmes. Internal communication is also often one of the major failings of recovery structures throughout the world, resulting in numerous misunderstandings and programmatic and operational failures. In the effective development of internal communication and coordination procedures, the National Natural Disaster Management Committee and the Recovery Coordination Committee will develop:

### **Formal Decision Rights and Structures**

All stakeholders involved must be clear on who has the appropriate decision rights. In previous responses, decision trees were developed, laying out all important decisions and which persons are responsible for approval, which persons should be consulted and which persons were responsible for providing recommendations. The persons who should be involved in key decisions should be identified; this information should be disseminated to all stakeholders to provide clarity in decision making.

### **Common language, results and procedures**

In addition to the establishment of programme goals, common processes, language and indicators are required as well. The joint definition of coordination mechanisms and processes will facilitate the implementation and monitoring of the Recovery Programme well. Process goals should also be defined as well, including mechanisms such as regularly-scheduled inter-ministerial meetings and task forces as well as smaller meetings consisting solely of senior policymakers.

### **Documentation and Transparency**

Trust-building is a long process, but documentation and transparency are good first steps. All Response information should be jointly managed and be easily accessible by any of the Government stakeholders involved in the response. The development of an open and joint response budget amongst ministries is an important part of ensuring transparency and building trust.

### **Conflict resolution and Decision Mechanisms**

The establishment of formal conflict resolution and decision-making mechanisms is key to any response. Additionally, it should also be decided when issues should be escalated to a higher level of government. Though consensus might be useful in Government work, resolving decisions by voting has several advantages: it is faster, which is important in recovery processes, and decision rights are a powerful bargaining chip that may be used to bring additional stakeholders to the table.

The NNDMC and RCC will also work with all internal stakeholders to develop and ensure access to dedicated information-sharing platforms, including an internal information-sharing website, relevant databases on progress and technical monitoring as well as all relevant documentation from dialogues amongst government agencies, donors and other institutional stakeholders.

## Shared Ownership of the National Recovery Programme

The planning, implementation and results of the National Recovery Programme is intended to be shared amongst multiple stakeholders. Though the Government of Myanmar has initiated the development of a comprehensive Recovery Programme, the input and advice from the private sector, development partners and multilateral and bilateral donors will also be sought. Shared ownership also entails careful setting of roles and responsibilities for each stakeholder, including international agencies and development partners. The Government should identify and establish avenues for their participation in the Recovery Process. These processes may also be used to (re)establish long-term commitments and joint principles. Creating shared ownership, especially with donors and development partners, allow multiple stakeholders to better understand the specific complexities of the National Recovery Programme and also allows for the joint identification of and accountability for solutions.

## Brief Roadmap to the Operationalization of National Recovery Programme

This roadmap presents, in broad strokes, the duties necessary to complete the detailed planning, implementation and monitoring of the Recovery Programme subsequent to the review and approval of this plan.

Represented are senior management and coordination bodies such as the National Natural Disaster Management Committee and the Recovery Coordination Committee; Sectors, which are inter-ministerial and issue-based; Financial Managers, especially the Finance Subcommittee of the NNDMC and the Ministry of Planning and Finance; as well as Recovery Implementers, which include State/Region Governments and other subnational authorities as well as Union Ministries which implement projects directly and civil society.

	Planning	Implementation and Reporting	Monitoring and Evaluation
<b>NNDMC and RCC</b>	<ul style="list-style-type: none"><li>The NNDMC and RCC will develop plans for the roll-out to all Ministries and States and Regions, including translation and dissemination</li></ul>	<ul style="list-style-type: none"><li>Consolidate Sector and State/Region implementation reports</li></ul>	<ul style="list-style-type: none"><li>Track the needs for M&amp;E across Sectors and geographic areas</li><li>Consolidate all adaptations and corrective actions proposed for inclusion later revisions of the Recovery Plan and Framework.</li></ul>
<b>Sectors</b>	<ul style="list-style-type: none"><li>Work with States and Regions to formulated consolidated and contextualised State and Region Plans and Detailed Implementation Plans</li><li>Develop mechanisms for the provision of technical expertise to subnational authorities.</li></ul>	<ul style="list-style-type: none"><li>Report on achievements in the provision of technical expertise to facilitate implementation</li></ul>	<ul style="list-style-type: none"><li>Develop monitoring plans and undertake technical monitoring of Recovery Interventions, focusing specifically on the quality of implementation.</li><li>Monitoring reports are to be disseminated to both State/Region Governments as well as the RCC.</li></ul>
<b>Finance Managers</b>	<ul style="list-style-type: none"><li>Advise on the availability of financial resources and any funding conditions and constraints that might exist.</li></ul>	<ul style="list-style-type: none"><li>Collaborate on and substantiate achievement reporting with detailed reporting on expenditures</li></ul>	<ul style="list-style-type: none"><li>Advise implementers on the financial ramifications of compliance/non-compliance with established standards and processes as well as with corrective actions suggested by technical monitoring</li></ul>
<b>Recovery Implementers</b>	<ul style="list-style-type: none"><li>Work with Sectors to developed Contextualised State/Region Plans and Detailed Implementation Plans with targets for all targeted Village Tracts.</li></ul>	<ul style="list-style-type: none"><li>Report against Detailed Implementation Plans to Sectors and RCC</li></ul>	<ul style="list-style-type: none"><li>Work with Sectors to undertake any necessary corrective action.</li></ul>

## **External Communication**

The NNDMC and the RCC are additionally responsible for public information and external communication functions of the National Recovery Programme. Transparent and effective communication is necessary, and a plan for a public information campaign is to be developed to ensure that all affected and non-affected communities are kept informed of the progress and trajectory of the National Recovery Programme. The public information campaign will also promote the coordination between the Government, its development partners, local communities and the private sector. This undertaking should be coordinated and aligned with disaster awareness and information provision activities under Outputs 4.1 and 3.1.

## E2. QUALITY ASSURANCE

### E2.1 Sectors

The use of and compliance with national standards is necessary for the successful implementation of the National Floods Recovery Programme. Only activities implemented in accordance with the specified standards and guidelines are eligible for funding and support under the National Recovery Programme. However, as retroactive financing mechanisms are not available in Myanmar, were recovery funding allocated to line ministries and state/region governments to be used to implement activities not in accordance with the specified standards,

- a) The responsible entity is to undertake all works necessary to align the intervention with national standards (i.e. additional repairs and renovations of constructed facilities or addition of persons unfairly excluded from activities) using funds from their own annual budgets or
- b) Failing that, return the funding for the discrepant activity to the President's Reserve Fund or National Disaster Management Fund

Determinations around the appropriateness of implemented interventions should be made by the Sectors which oversee the implementation of Recovery Activities and the Recovery Coordination Committee which monitors the common implementation standards. The Sectors shall:

- Report on the progress of interventions across sectors and geographic areas
- Monitor the quality of implementation and ensure that delivery contributes to the Multi-Sector Recovery Framework
- Identify best practices in planning and delivery that can be taken to scale
- Identify challenges in the implementation of the National Recovery Programme and propose solutions
- Standardise and govern Sector decision-making processes
- Provide a forum for technical working groups and discussions

The Recovery Coordination Committee is tasked with managing the overall coordination of Recovery activities across Sectors and State/Regions as well as working with the National Natural Disaster Management Committee (especially its Finance Subcommittee) to resolve allocation issues between Sector members related to the recovery from the 2015 Floods and Landslides.

Sectors, Ministries and Departments by Outcome			
Outcome 1	Outcome 2	Outcome 3	Outcome 4
<b>Housing and Settlements</b> Ministry of Construction Ministry of Natural Resources Ministry of Electricity Ministry of Social Welfare	<b>Agriculture</b> Ministry of Agriculture, Livestock and Irrigation; including Myanmar Agricultural Development Bank	<b>Social Protection and Accountability</b> Department of Social Welfare Department of Rural Development General Administrative Department	<b>Disaster Management</b> Relief and Resettlement Department Ministry of Natural Resources Department of Meteorology and Hydrology
<b>WASH</b> Ministry of Agriculture, Livestock and Irrigation Department of Public Health	<b>Livestock and Fisheries</b> Ministry of Agriculture, Livestock and Irrigation		<b>Environmental Protection</b> Ministry of Natural Resources
<b>Education</b> Ministry of Education <b>Health</b> Ministry of Health	<b>Industry and Commerce</b> Ministry of Labour, Immigration and Population Ministry of Planning and Finance		
<b>Transportation and ICT</b> Ministry of Construction Ministry of Transport and Communications			

With reference to the table above, each Union Ministry involved in the Recovery Programme has been assigned to a Sector, with several ministries participating in more than one. Ministries within each Sector should, in addition to implementing the duties listed above, seek to include other stakeholders related to each Sector, including Advisory Groups, Clusters and development partners as well as the private sector; and appoint a lead agency who will be responsible for providing secretariat support to each Sector, much as the Recovery Coordination Centre does for the Recovery Coordination Committee.

## E2.2 Evidence-based Decision Making and Information Management

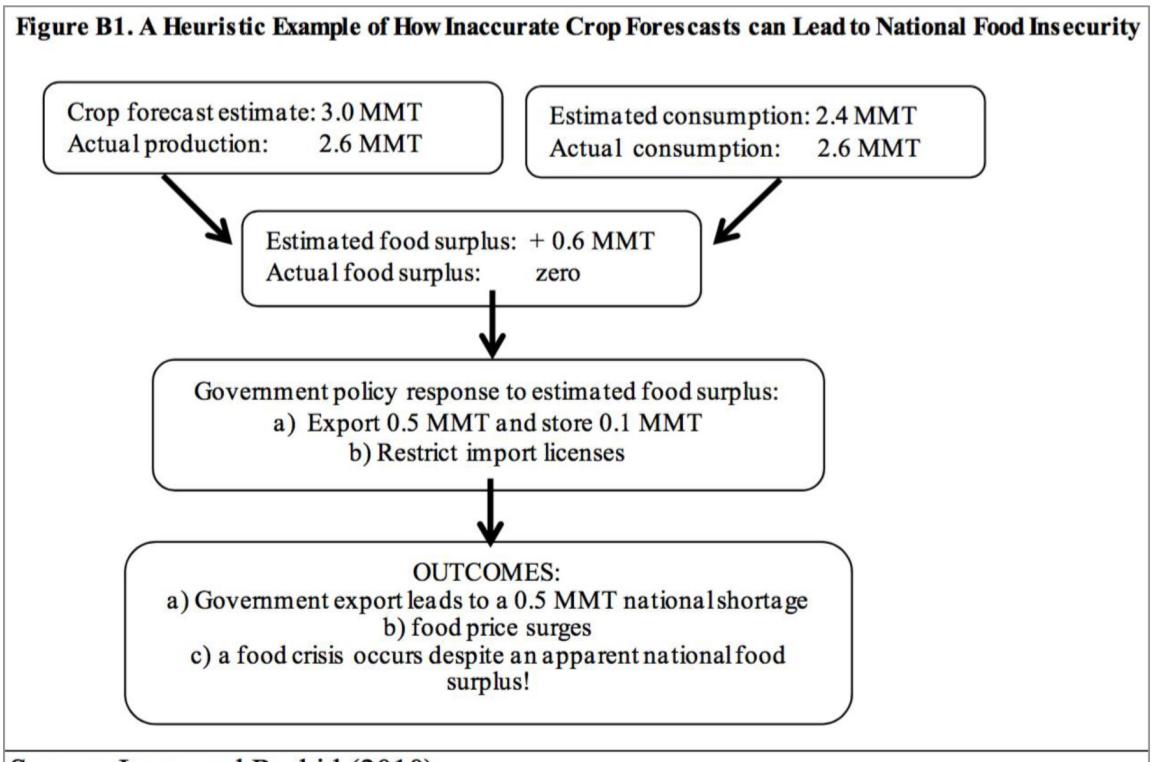
Key to the establishment of any new structure and decision-making system is the flow of information. Due to the distributed nature of the National Recovery Programme, the regular reporting of achievements and monitoring of implementation quality are especially necessary to ensure that decisions are founded on evidence. It is difficult to overstate the importance of reliable statistics for guiding government policy and private investments. Improving information management will not only increase institutional capacity for emergency response and recovery programmes but will also support the planning, delivery and evaluation of activities.

Evidence-based decision making provides the surest way to achieve the best outcomes for target communities and make the most effective use of resources, making use of Information Management, Community Accountability and Monitoring and Evaluation systems and processes to contribute to:

- Improved Decision Making: Data Analysis and its attendant procedures are the most efficient way to make use of large amounts of unstructured data quickly. This change has already been embraced by the private sector, where analytics and enterprise decision making have conferred innumerable competitive advantages to their practitioners. Conversely, the inability to efficiently make use of available primary and secondary data would result in lost opportunities and less-effective decision making. To make decisions that are not based on evidence runs counter to the Recovery Principle of Effectiveness.

- Better Programme Outcomes: Developing an evidence base and the capacity to use it improves the National Recovery Programme's value proposition and relevance towards the communities it serves; this occurs because analytics improves targeting and allocation processes, making them more efficient and better aligned with community needs and priorities.
- Augmentation of Technical Expertise: When data is organised and structured, it allows the time and resources of technical experts more effectively. This mitigates potential staffing restrictions and allows technical expertise to be applied to a wider range of data than it normally would.
- Increased Accountability and Coordination: Basing decisions on evidence demonstrates accountability to staff, communities and donors. It instils confidence in management decisions and provides clear rationales which can be recorded and re-examined as a programme progresses. Using evidence to drive decision making allows everyone to base their actions on the same set of information and increases flexibility and independence at various levels of management.

To provide the basis for evidence-based decision making there must be robust data collection and reporting systems. Inaccurate data, as can be seen from the diagram below, too often leads to suboptimal outcomes and programmatic failures:



## **E2.3 Monitoring and Evaluation**

However, even the best reporting systems are no replacement for skilled monitoring and evaluation, which makes the difference between knowing something is being implemented and knowing if it is being implemented well. Additionally, as market conditions change, there is a need to revisit and update analyses with additional data on economic or livelihood conditions and allow for programmatic change.

Distinguished from the reporting of achievements and audits: monitoring and evaluation addresses the possible needs for course corrections during the implementation of activities. The timely monitoring of Recovery Outputs and Outcomes is necessary to ensure that activities are having their intended impact or if critical assumptions identified in the programme design are still valid.

However, the establishment and sustaining of monitoring and evaluation systems in post-disaster recovery is often not prioritised or allocated sufficient resources or manpower. To not monitor implementation would be to assume that circumstances will not change at a time when the country is undergoing widespread and sweeping reforms. The enabling environment for the implementation of Recovery Interventions is constantly being altered. New links may be established and critical assumptions invalidated, creating huge implications for Recovery Interventions.

The specific indicators to be monitored as part of the National Recovery Programme will be jointly identified between the RCC, the Sectors and State and Region Governments. These indicators should include both inputs (kilometres of electrical wires installed) as well as outputs and outcomes (percentage of community with electricity, percentage of population satisfied with provision of electricity). Subsequent to the development of detailed implementation plans and the reporting of achievements, the Sectors are to work with States and Regions to develop monitoring plans and schedules as well as agree with the RCC on how findings may be effectively disseminated and followed-up upon.

At specific intervals, Sectors are to work with the RCC to conduct comprehensive, multi-sector evaluations of the Recovery Programme. These may be affixed to major milestones such as the one-year-mark or timed to suit the conditions of multilateral and bilateral grants and loans.

Finally, though the National Recovery Programme proposes no new legislation – a multi-sector integrated programme is ill-suited to be a vehicle for reforms and policy changes, in the course of monitoring the quality of implementation, Sectors should also take note of the adoption of new legislation and policies enacted by the Government which provide the enabling environment in which the National Recovery Programme is to be implemented: these include the alignment of Recovery Implementers with the Environmental Impact Assessment Act as well as the National Strategic Plan for the Advancement of All Women.

### **E3. FINANCIAL MANAGEMENT AND RESOURCE MOBILISATION**

The successful financial management of the the National Recovery Programme relies on:

- The Rapid Disbursement of funding to meet short timelines for project design, preparation, procurement and implementation. It is necessary to disburse funding as quickly and transparently as possible.
- The Coordination of Resources is necessary as many governmental and nongovernmental actors are engaged in recovery efforts. The coordination of resources should be an extension of higher-level coordination activities described in earlier sections. This is especially key as many sources of funding might not be managed by the Government and not be reflected in Government budgets.
- The securing of Flexible Funding Sources is necessary in post-disaster environments as conditions and context tend to change rapidly: unacceptable delays may occur is budget revisions have to wait for normal budget cycles: in between periods of major review, the Sectors are responsible for managing and amending budget, in cooperation with the Ministry of Planning and Finance and the Finance Subcommittee of the NNDMC.

The PFLNA observed challenges and difficulties in the quick disbursement of funds and it took a number of weeks before funds reached several states and townships. Furthermore, the Government of Myanmar is subject to numerous funding constraints: though the recent economic and social reforms have spurred economic growth, Myanmar is still considered one of the Least-Developed Countries. Additionally, the funding required for recovery programmes is often is excess of what can be realistically raised from the international donor community.

There is insufficient local revenue to implement the National Recovery Programme. It is estimated that more than 90% of the budget for the proposed activities cannot be funded through normal Union Ministry and State/Regional budgets. It is proposed that the Government of Myanmar seek to fund this programme through a combination of:

#### **National Government Emergency Relief Funds**

The resources committed to the Emergency Response to and Recovery from the 2015 Flooding and Landslides has been considerable from Emergency Relief Funds and Reserve Funds such as the National Disaster Management Fund (NDMF) and the President's Reserve Fund have been considerable. Both the NDMF and the President's Reserve Fund have committed more than MMK 100 billion so far to Relief and Recovery Activities. These funds are replenished periodically – annually, in the case of the NDMF.

However, it is especially important to remember that these Emergency Funds were established to finance both current and future disaster responses and in the acquisition of resources for the National Recovery Programme, it should be ensured Emergency Response Capacities are not underfunded or eroded due to an over-diversion of resources. Regulations governing the use of the NDMF have been issued under Section 43(a) of the Natural Disaster Management Law and include rules on the formation of the necessary committees and bodies, accepting funds, disbursal and reporting. The limits of authority for various authorised persons has also been detailed.

## **Increases to National Budget Allocations**

The objectives of the National Recovery Programme, which seeks to forestall and mitigate long-term income losses, are in alignment with the overall fiscal management goals of the country. Many of the activities proposed in this plan are congruent with the planned long-term increases in social spending.

The use of monetary policy is still limited and securing any form of monetary stimulus to fund Recovery Activities is extremely unlikely. Given the current conditions of public fiscal management, fiscal policy is the most likely instrument used to address the large and pressing recovery needs. The Government should be able to further increase expenditures in priority areas: a comparison of Myanmar with its neighbouring countries indicates that the ratio of public expenditures to GDP has been increasing, but still below the prevailing rates in other countries.

However, the Government of Myanmar has committed to running a budget deficit of no more than 5% to maintain macroeconomic stability; much like the other planned increases to social spending and investments in human development, the National Recovery Programme will also be heavily dependent on revenue expansion.

Nevertheless, many of the areas targeted by the National Recovery Programme are amongst the poorest and most marginalised in the country, with large populations of rural poor (who will experience the majority of the long-term losses) and incomes far below the national average. The Recovery from the extensive and intensive damage from the 2015 Flooding and Landslides should be understood as a precursor to longer-term development activities and improvements to disaster management capacity should be viewed as productive and protective investments which will protect the gains from human development and inclusive growth and reduce the impact of future disasters on them.

Additionally, though the flows of international and institutional donor funding can be anticipated to increase – in response to the reforms undertaken since 2011 – substantial and commensurate commitments from the National Government are pre-requisites in securing multilateral/bilateral grants and loans.

## **Public-Private Partnerships**

Public-Private Partnerships (PPPs) may be used across a wide range of sectors, especially in economic and infrastructure activities and should be seen as supplementing but not substituting the role and obligations of the state in ensuring populations have access to vital services. There are a broad range of options where the Government may transfer responsibilities, risks and rewards for service delivery to the private sector, including for the design, building, financing, maintenance and operations of projects.

However, whilst private sector participation may significantly contribute to public service provision, international experience suggests that the bulk of infrastructure and social investments will remain government responsibilities.

The various preconditions for Public-Private Partnerships include clear and transparent legal and regulatory frameworks to prevent abuses and corruption; ensure that social and environmental impacts are properly addressed; ensure the efficiency; and ensure an appropriate balance of risks and rewards between the public and private sectors.

## Multilateral/Bilateral Grants and Loans

External partners should be encouraged to provide as much of their support as possible through grants or loans with concessionary interest. The net development assistance per capita received by Myanmar has been steadily increasing but is still far behind commitments in neighbouring countries such as Laos, Cambodia and Vietnam. Nevertheless, a wide range of international actors and donors already maintain large presences in Myanmar, with JICA, the ADB and the World Bank having made substantial commitments in the order of hundreds of millions of dollars towards development priorities.

However, the need for increased donor coordination is necessary in the implementation of a multi-sector integrated programme and the NNDMC and RCC will provide support for this and organise donor conferences and schedule regular updates with donors in order that their funding may be channelled towards Recovery Interventions more systematically.

For reference, a ministry-wise breakdown of the Recovery budget is included below:

Recovery Budget by Line Ministry, in million kyats			
Line Ministries/Agencies	Budget	% of Total	Sectors
Ministry of Agriculture, Livestock and Irrigation	388,337	19.63%	Agriculture, ,Livestock, Fisheries, WASH, Cash, Transport
Ministry of Social Welfare, Relief and Resettlement	345,405	17.46%	Protection, Cash, DM
Ministry of Construction	327,514	16.55%	Housing, Transport, DM
Myanmar Agricultural Development Bank	194,014	9.81%	Agriculture
Ministry of Transport and Communications	176,689	8.94%	Transport, Connectivity, Irrigation, DM
Ministry of Natural Resources and Environmental Conservation	161,309	8.15%	Housing, Environment
Ministry of Planning and Finance	154,550	7.81%	Industry, Finance, DM
Ministry of Education	96,754	4.89%	Education
Ministry of Labour, Immigration and Population	54,357	2.75%	Industry and Commerce
Ministry of Home Affairs	39,754	2.00%	Other
Ministry of Health	33,135	1.67%	Health, WASH
Ministry of Electricity and Energy	6,864	0.34%	Transport and Connectivity
<b>Total</b>	<b>1,978,682</b>	<b>100%</b>	

## **E4. IMPLEMENTATION**

### **Detailed Implementation Plans**

In line with geographic prioritisation and area-based programming approaches outlined in part D on page 111, Union Ministries and State and Region Governments are to perform more detailed allocations in order to develop detailed implementation plans (DIPs).

The DIPs are to include village-level allocations and targets and once prepared, are to be consolidated first at the State-and-Region level then by the Recovery Coordination Centre at the national level. The preparation of DIPs should be conducted after township and village-tract level allocations have been performed by the State and Region Governments. The largest section of this document, Narrative Description of Activities and Implementation Standards, contains a “menu of options” from which all sub-national governments may choose from, depending on what is appropriate for their context as well as on the resources allocated to it. It is the responsibility of the State and Region Governments to ensure that village and village-tract DIPs are linked and form a cohesive programme of interventions for their State/Region.

### **Capacity Development and Staffing**

Though much of the implementation standards have been addressed in earlier segments, international experience in the implementation of large-scale recovery programmes indicates that much new hiring and orientation of staff needs to occur, in addition to the existing commitments and secondments.

The NNDMC and the RCC are to work with all Union Ministries and State and Region Governments involved in the Recovery Programme to determine staffing and human resource plans. These should also take into account the needs of seconded staff and those who might have to accommodate additional work on top of their pre-existing commitments. As a longer-term measure, the Government will consider the development of an emergency roster of qualified staff in emergency response and recovery for reference in future disasters. Due to the high turnover in both the Emergency Operations Centre and the Recovery Coordination Centre, additional steps are necessary to ensure that disaster management capacity is institutionalised and protected.

Additionally, as detailed in Output 4.3, a comprehensive programme of capacity development shall be designed and put in place in order to support policy and programme design as well as implementation. Of particular interest are measures to build technical capacity to ensure the quality and appropriateness of the implemented interventions. As capacity building itself has been included as activity under the logframe, its progress and quality is to be measured, as with all other activities. The commitments of international actors for capacity building should be recorded and documented for reference of all Sectors and State and Region Governments.

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## National Recovery Framework and Plan Floods and Landslides 2015



Government of the Republic of the Union of Myanmar