

BACKGROUND PAPER FOR: 'CAPTURING LESSONS IN RESILIENCE FROM POLICY TO PRACTICE' WORKSHOP

LESSONS IN RESILIENCE, EXPERIENCES FROM BRACED, MCCR AND MCCA



DRAFT: This version of this paper was shared in the workshop on 'capturing lessons in resilience from policy to practice', Nay Pyi Taw, 4th+ 5th of December.

The contents of this paper will be refined and updated based on inputs and outcomes of the workshop



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Acronyms

ADMER	ASEAN Agreement on Disaster Management and Emergency Response
ASSI	ASEAN safe Schools Initiatives
BRACED	Building Resilience and Adaptation to Climate Extremes and Disaster Myanmar Alliance
DMH	Department of Meteorology and Hydrology
DNMC	
DPRE	Disaster Preparedness and Response in Education
DRD	Department for Rural Development
ECD	The Environmental Conservation Department
INDC	Intended National Determined Contribution
MCCSAP	Myanmar Climate Change Strategy and Action Plan 2016-2030
MCCA	Myanmar Climate Change Alliance
MCCR	Myanmar Consortium for Community Resilience
MAPDRR	Myanmar Action Plan for DRR
NDC	Nationally Determined Contribution
NCDRF	National Community Disaster Resilience Framework
PSAs	Public Service Announcements
RRD	Relief and Resettlement Department
RIMES	Regional Integrated Early Warning Systems
SFDRR	Sendai Framework for DRR
TWG	Technical Working Group
OCHA	UN Office for the Coordination of Humanitarian Affairs
UNDSS	UN department of Safety and security



1. Background and Objectives

This paper has been developed to feed key lessons, challenges and recommendations from experiences of implementing climate change and disaster resilience projects into the national workshop on ‘capturing lesson in resilience from policy to practice’ to be held in Nay Pyi Taw on December 4th and 5th 2017.

Significant advancements in Myanmar have been made over recent years in policy and strategy development to further understand and manage risks from natural disasters and climate change. National strategies and policies including the Myanmar Action Plan for DRR (MAPDRR), the National Climate Change Strategy (NCCS) and the National Community Disaster Resilience Framework (NCDRF) are leading the way for more effective planning for risks and development of implementation plans for mitigation and adaptation actions that risk inform sectoral plans and support communities to become more resilient to shocks and stresses.

The implementation of these strategies in the coming years will require substantial coordination, cooperation and sharing between a wide variety of institutional, technical and private stakeholders led by the Myanmar government. It should be acknowledged that many crucial building blocks for resilience building have been established through a variety of initiatives being implemented across the country.

A trend in recent years has been to implement donor projects through Alliances or Consortiums that are comprised of partnerships between specialist agencies that allow leverage of technical skills and experience and improve the outreach of programme activities. A number of these programmes are being implemented in Myanmar including the Building Resilience and Adaptation to Climate Extremes and Disaster Myanmar (BRACED) Alliance, the Myanmar Consortium for Community Resilience (MCCR) and the Myanmar Climate Change Alliance (MCCA). These programmes are supporting national and local government departments and partners to operationalize and test different approaches to building resilience through policy support down to local level implementation.

To take stock of the successes and challenges of various interventions and approaches, the BRACED Alliance, MCCR and the MCCA are collaborating on a national workshop aimed at supporting Myanmar Government departments to analyse lessons and learnings across projects and activities.

The workshop will be jointly hosted by the Relief and Resettlement Department, The Environmental Conservation Department and the Department for Rural Development

The workshop has the following key objectives:

1. To review progress, achievements, learning's and challenges in Policy development and implementation for addressing climate change and disasters

2. To capture experiences, lessons and good practice of consortium projects on CC/DRR and Resilience.
3. Identify key recommendations for improved collaboration and cohesion between national strategies and implementation of resilience building activities.

This paper highlight the key learnings across the BRACED, MCCR and MCCA consortiums under 4 key themes that will explored in a coming national workshop.

- **Policy Support and Influence** of key government strategies including MAPDRR and the climate change strategy,
- **Risk information** including generation, access, dissemination and interpretation of risk data covering climate projections, weather forecasts, media and outreach.
- **Risk and resilience Planning** covering approaches, technical tools and collaboration with Government departments through entry points covering local, township and national levels,
- **Implementation and capacity** highlighting experiences across projects and challenges of scheduling and coordination with partners and government and financing, capacity building and training.

The paper is structured around these themes and will highlight in each section 1) an overview of the key activities and approaches undertaken in the project under the respective theme, 2) An overview of the key lessons identified form the projects based on experience of working in that theme, followed by 3) a set of Key recommendations and next step to improve effectiveness and collaboration in disaster and climate change resilience policy and practice in the future

2. Policy Influence

2.1 Consortium approaches

BRACED

BRACED was designed as an implementation focused project that would put significant emphasis on capturing lessons from implementation that would be relevant to both township level and national level planning and decision making. The project would then try and package these lessons in ways that could influence higher level planning and strategies.

Key influencing approaches have involved consolidation of evidence and learnings through research products including a study on decentralised risk informed planning, a national survey on climate and risk perceptions through Climate Asia report, and a study on climate information needs and a thematic research on resilience and microfinance and women's empowerment. BRACED through the Disaster Risk Reduction Working Group (DRRWG) has supported consultation meetings and workshop for development of various policies and strategies including the National Disaster Resilience Framework and the Myanmar



Action Plan for DRR (MAPDRR). Other advocacy works have happened through national workshops and a peer to peer resilience learning process implemented through RRD and the ADMER working group.

MCCA

Since 2015, MCCA has helped developing the *National Climate Change Policy (NCCP)*, the *Myanmar Climate Change Strategy and Action Plan 2016-2030 (MCCSAP)* and six (6) related *Sectoral Action Plans*. In addition, MCCA has co-drafted the *Intended National Determined Contribution (INDC)* that was submitted to UNFCCC in 2015, and is now being adapted to become a Nationally Determined Contribution (NDC).

In the process of developing these Policies, Strategies and Action Plans, MCCA consulted over 3500 individuals in 6 states and regions; 13 townships; three City Development Councils of Yangon, Mandalay and Nay Pyi Taw. It collected information in additional 10 townships; the Private Sector and the Civil Society. Representatives of all line Ministries, as well as high representatives of states and regions participated in the formulation throughout. In addition, the drafts were public and shared for comments for over three months on social platforms and website.

The Sectoral Action Plans contain specific actions, projects and activities to be undertaken. The design of the Strategy with a result-based approach guarantees that this document is actionable. In line with this approach, MCCA with ECD also facilitated the prioritization of activities to be financed through the Union Budget 2018-2019. The use of State budget demonstrates that these policies are indeed formulated with views to concrete implementation.

MCCA established a *Technical Working Group*, initially for the formulation of the policy documents, but that rapidly evolved into a potentially sustainable climate change platform. The TWG meets in plenary meetings and in thematic groups, i.e. six (6) *Sectoral Working Group*, aligned with the policy and strategy thrusts.

The TWG is formally established and is composed of all line ministries, the city development committee of Mandalay, Yangon and Nay Pyi Taw, the private sector and civil society representatives, academia and development partners.

The TWG meets for the formulation of policies, technical trainings and meetings, awareness and advocacy events and forums. For instance, the Civil Society and Policy Makers Forum in 2015, in which the members of the TWG met the Civil Society Organizations ahead of COP21 and for consultations on the priorities of the civil society in the strategy; for the Technical Training on Climate Risk Information; on the Climate Change Projections and Policy Makers Forums; in addition to the four national strategy workshops and two policy workshops.

MCCR

MCCR's has been working closely with the Ministry of social welfare on policies related Disaster Risk reduction. Mainly visualizing Sendai Framework for DRR (SFDRR) and the support towards the revision of the MAPDRR through the DRRWG.



MCCR with its partners, through the DRR working group supported the field level consultations during drafting the MAPDRR and supported national level workshops on Inclusive DRR, Comprehensive School safety and Emergency health preparedness.

Further MCCR also joined the Disaster Preparedness and response in Education (DPRE) working group in influencing the adoption of Comprehensive School Safety- CSS initiative and ASSI toolkit was another area MCCR focused its work on during the implementation.

Further to the Union level engagement, MCCR supported the 1st Earthquake forum in Yangon bringing in key policy and practitioners to influence on policy and action towards earthquake safety in urban areas

2.2 Lessons, successes and Challenges

Policy formulation and implementation

The broad basis of consultation during the climate change policy and strategy development encouraged legitimacy and ownership, which are better guarantees of these documents to be implemented overtime, despite the lengthier process of consulting large numbers and producing different drafts; In addition, *this creates awareness amongst policy-makers across sectors* that are not primarily concerned or tasked with climate change and disaster risk reduction agendas;

Policy coordination: Myanmar is formulating several policies and norms at the same time. This causes fatigue from consultation, as well as demand on partners. This must be mitigated by good coordination amongst technical teams involved in consultations, and very effective use of time;

TWG focal points: The TWG has established itself as a reference group, *with focal points that have consistently participated from all relevant sectors*, thus increasing the mainstreaming of climate change into respective departments. This consistent participation creates *a critical mass of policy-makers that are aware and proficient in climate change issues*, and able to both input strategies and policies with sectoral views, and vice-versa. Consistent participation creates *a critical mass of policy-makers that are aware and proficient in climate change issues*, and able to both input strategies and policies with sectoral views, and vice-versa.

Policy to practice (flow): Though there are efforts in Myanmar in the DRR and Climate Change spectrum to connect policies and initiatives at local level the knowledge and awareness of national policies on the ground is weak and there is lack of clarity on the implementation procedures and strategies which leads to challenges in implementing the policies by the subnational level authorities.

1.3 Recommendations and next steps

Translations from English to Myanmar must be streamlined, and improved. The MCCSAP and NCCP are still pending adoption due to the insufficient quality of the translation, causing delays.

Strategies and action plans should be designed with results in mind. Although they cannot all be designed as actual projects, given the broad timelines and scope, at least the result-based approach gives documents credibility, and can attract support of the donors;

Multi-level engagement for implementation of local action plan: Implementation of recommendations provided in research and through township level assessments (environment and DRR) under BRACED have been weak due to a lack of mandate and political will in local departments to implement such plans and a lack of capacity and resources.

However, during national level workshops, senior government official showed much interested in reports and key recommendation and have expressed interest in integrating recommended activities into regional planning processes. It is important to engage government departments at both national and local level to ensure that both are aware of proposed activities and have a clear ownership over the implementation process.

There is need to foster better coordination between DRR and CC coordination mechanisms: With multiple strategies and policies being developed in parallel related to DRR and climate change it is critical that platforms and mechanisms are designed to improve coordination between departments and implementation plans to avoid duplication of activities and plans and support streamlining of financing mechanisms for implementation.

Monitoring and knowledge management of the TWG: Sustainability of the TWG platform is embedded in the strategy, which requires a platform of coordination to be monitored. In general, the existence of platforms on climate change, and on disaster risk reduction, with the consistent participation of focal points ensures the actual mainstreaming of issues into sectors. On the other hand, if the information and knowledge is not passed on, there is risk that knowledge is lost within departments; therefore there is need for mechanisms of knowledge management. MCCA has now initiated *policy briefs* to convene the T-SWG, and is preparing ECD to coordinate these groups sustainably. Agendas, regular meetings, minutes of the T-SWG are required for sustainability.

The next steps will involve convening all T-SWG with policy-briefs under the coordination of ECD and institutionalizing the groups under the coordination of the newly established Climate Change Division of the Ministry of Natural Resources and Environmental Conservation.

3. Awareness, advocacy, science, risk information

1.1 Consortium approaches

BRACED

BRACED has produced risk information across time scales directed at different stakeholders. Climate and weather information is usually obtained through several complementary sources, such as from cyclones tracking websites or from active stakeholders in the country (UNDSS, OCHA e.g.). This information is provided in the form of daily and weekly forecasts published in local media, social media as well on the Department of Meteorology and Hydrology (DMH) website. BRACED through the Regional Integrated Early Warning Systems (RIMES) has been working with DMH supporting monsoon forums at region/state level and providing training in disaster management and climate forecast information and interpretation to region and township departments and local civil society to access weather forecasts and interpret information to be able to make decisions.



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BBC Media Action carried out a nationally representative quantitative study with people in Myanmar interviewing 3,000 people between July and September 2015 in five geographic zones in Myanmar:

Coastal, Delta, Dry, Hilly and Plain. Using findings from the quantitative study, BBC Media Action has built a national picture of how people in Myanmar live and deal with changes in the weather and environment. Based on this data and other formative research they produced 28 radio and TV PSAs, broadcast on national state media channels three times per week, reaching an estimated 360,000 people in the BRACED project areas. These PSAs provide short, (1-2 minutes) vignettes showcasing people from different rural areas in the Delta and Dry Zone, taking action to prepare and survive extreme weather such as floods, cyclones, drought, and earthquakes. In early 2017 BBC Media Action undertook a research survey to find out whether the PSAs had been effective.

The target audiences under BRACED cover multiple levels covering national public audiences through PSA's, state and regional and township government departments and working on improving accessibility if information direct to community members and user groups including farmers and Village disaster management committees.

MCCA

MCCA formulated the *Building Awareness on Climate Change: Strategic Insights* to identify key groups in the country for more effective targeting of awareness. These are (5) major groups, i.e. 1) the Policy Makers, for their role in shaping policies and norms; 2) the Media, for their role to disseminate and multiply knowledge; 3) the Civil Society, for their role in society, multiplier capacities and active role in climate change; 4) the Youth and Children, the former for their ability to use social media and work in networks and the latter to create a culture of awareness from earlier ages; 5) the Private Sector, for their role in disaster resilience and low-carbon development.

All are equally important and can be reached through different channels. The strategy concluded that, in 2015, awareness of climate change existed but it was superficial for those groups that rather required good information. In particular, the Policy Makers and the Media require handling the information correctly. MCCA has chosen to concentrate on Policy Makers and Media, while also working in target communities; and work with Policy Makers through other platforms. Equally, on Youth and Children MCCA has rather supported other networks with comparative advantages.

MCCA has worked to build awareness through social media, forums and events at national and local level with the Policy Makers, the Media, the Civil Society and the Youth, reaching an estimated 200,000 people indirectly, and more than 12000 directly overtime. Film festival and documentary production, in addition to feature articles are amongst the work implemented.

Among other information, MCCA produced policy-briefs on key sectors to highlight sectoral impacts of climate change and required action, in alignment with the strategy. This includes the partnership established with the non-profit organization Business for Social Responsibility on Business Resilience and Private Sector Action study; food security and climate change; eco-systems; energy, transport and industrial systems; urbanization; health and disaster risks; education and technology. It also cooperated with partners such ASEAN on agriculture and climate change, through forums.



In line with the targeting strategy, MCCA has focused on working with the Media at national and regional level. In cooperation with the *Myanmar Journalism Institute* it has created a dedicated curriculum, and undertook mentoring of journalists, with publication of feature articles and reportage from this work. The

rationale for focusing on the media is the ability to reach as many people as possible with consistent and well informed messages in Myanmar, English and local languages where possible.

In addition, MCCA consistently supported other consortia, such as BRACED with dedicated sessions on climate change. It engaged with a network of national and international journalists with interviews, TV debates and supporting the publishing of articles and reportages, publishing regularly on the subject.

It also worked with the *Yangon Film School* to produce a climate change documentary and with the *Goethe Institute* to celebrate the international environment and climate change film festival that awarded promising Myanmar video-makers with climate change subjects.

In partnership with the Columbia University Center for Climate Systems Research (CCSR), World Wide Fund for Nature (WWF) and the Department of Meteorology and Hydrology (DMH), MCCA published the study 'Climate Risk Information for Myanmar', which contains the new climate change projections and possible impacts in the country and started dissemination through seminars, workshops, trainings, articles.

It has also supported DMH and RIMES to engage with the policy-makers of the TWG through national trainings and workshops to facilitate the understanding of the projections, potential impacts in sectors, and sector-based response.

MCCR

Myanmar is prone to different intensities of earthquakes as it is located on one of the two main prominent earthquake belts of the world, in light of this and the possible humanitarian situation an earthquake could create, MCCR with its partners supported a range of risk information generation and dissemination especially on earthquake risk.

- Seismic risk assessments were conducted in Bago, Pyay, Sagaing and Taungoo
- Probabilistic seismic hazard maps were developed for Bago, Pyay, sagaing and Taungoo
- Rapid Visual Screening of Buildings for Potential Seismic Hazards – 60 selected building in Yangon.

Joint realization of earthquake risk information and action through Earthquake forum – a range of Earthquake related risk assessment and plans were presented with multi stakeholders in Yangon and Mandalay. It was used as a forum to coordinate among the relevant stakeholders and share information generated.

2.2 Lessons, successes and Challenges

Presentation of complex data and interpretation: Although DMH produces weather forecasts for 30 days, 10 days & 3 days, outreach to community level is still poor. Community members are not aware where they can find those kinds of information is not presented in a user friendly format for community.

Interpretation of the information for BRACED Alliance members was not found difficult as Alliance members staff have been trained on the use of such data. However, usage for non-technical staff, or individual who were not exposed to such information and data in the past, remains limited.

Language translation: In BRACED communities 78% of target population (77% female and 79% male) stated that they have access to weather forecasts/risk information (2016) compared to 56% in 2015 baseline survey. However, interpretation of climate information and weather forecasts is most challenging in areas where population use ethnic language (e.g. Kaw Mu Thee Village in Hpa-An, Kengton and Rakhine). Ethnic language is a barrier to acting on the messages as they do not understand the Burmese message that is disseminated.

Non official sources of trusted weather information: whilst the BARCED project is promoting and utilising officially weather forecasts produced through DMH, there are other sources of data that are being produced that are trusted by communities including the ex-director general of DMH U Tun Lwin. At a very local level he is a trusted source of information. In border areas many communities will access weather information of neighbouring countries. For example in October farmers in Kengton have been listening to weather forecast broadcast from Thailand on radio and delaying harvests due to late monsoon rainfall to avoid production losses of rice left in fields to dry.

Access to weather and climate information: Weather related information can be easily accessed through social media especially Facebook as was demonstrated during the 2015 floods, however, availability of climate information (longer term forecasts) is still limited especially at a local level. Information was broadly shared by Government Departments through different channels such as TV/Radio broadcasts, but also, through social media and technical working groups. At community level access to basic services such electricity, smart phones and radio/TV inhibits receipt and use of weather and climate forecasts.

To ensure the risk information is translated to action, the technical information need to be understood by the different stakeholders. There needs a capacity towards translating the information for different level from national to subnational and at community level. A key lesson learnt is the need for projects to invest in developing different stakeholder capacity on this essential. The efforts in connecting the community leaders with regional officials and training media personnel helped in a way positive towards interpreting and disseminating the risk information to at risk communities.

MCCR Validity of Urban Data at Township level: UN-Habitat is undertaking earthquake resilient activities in Yangon region including urban area; Lanmadaw Township, Yangon General Hospital, probably schools in urban townships and sub urban area of Shwe Pyi Thar Township. Discrepancies among collected data, information and actual situation were occurred due to the high density of population in urban area and the number of institutions involved. In urban area of Yangon region, respective departments were managed by their own ministries and GAD has not fully authorized to manage to other departments and they can take only coordination and negotiation role.

This consume a lot of time in cleaning the data yet the space for coordination and consensus is remain a challenge.

Lack of focal institute for Earthquake risk management: Though the risk of earthquake is very high compared to other hazards listed for Myanmar, a lot of information is generated and it is very important that a dedicated focal from the government level is established to coordinate the good work.

Decision making with incomplete information: In the case of cyclone warnings the colour code refers to the distance from the Myanmar coast. One decision to evacuate Labutta villages was made based on a Cyclone warning coded “red” which, is generally regarded as dangerous, without further consideration of the size and strength of the cyclone. Better decisions, thus, can be undertaken when the warning is analysed from all angles including distance, size and strength of storm, direction, resilience of the communities in the path etc.

Short term response focus: Most use of weather information comes as early warning and is used for short term actions including further dissemination of warnings, evacuation, and preparations for rescue. Many Township departments receive DMH generated information however, further dissemination of weather and climate information rarely comes with advisory on how to act. Current receipt and use of longer term forecast (seasonal/climate projections) is very limited.

Targeting major groups with climate change information, is an effective way to organize awareness action at national level, as opposite to general approach, given the need to target messages, use the correct channels, optimize resources, and identifying who-does-what better: there has been a replication and overlapping of many user-friendly materials, messages and brochures, because different agencies produce materials with little coordination and sharing of resources;

National meetings and forums remain an effective way to engage policy-makers, if these are coupled with a regular coordination platform that conveys a consistent message for sectors. Otherwise, these large forum’ benefits are hardly proven effective.

Working with media is essential to multiply messages in a correct way across the country and across audiences. Television, radio and written press all serve different purposes;

It is absolutely crucial to *avoid one-off training* approaches with the Journalists. A *‘mentoring’ process is preferred* because, though numbers may be smaller, there is incomparable more guarantee the correct messages will be understood and conveyed by journalists that are actually interested and capable to report within the different media outlets;

The presence and treatment of climate change has increased from 2015-2017 in written, TV and radio reports. This must be maintained and support not replicating trainings, but selecting key topics that can be developed by journalists, e.g. journalists focusing on food security and climate change in regions; urbanization and climate change and so on.

Increase the presence and use of Facebook-based work. In the country there is a surge of attention to Facebook. Regardless the number of followers or likes, some posts can reach even 120,000 people. This should be prioritized; Visits to the DMH Facebook Page reached more than 300,000 followers at the end of 2016, compared to only around 70,000 by mid-2015 (DMH Facebook Page was introduced in 1 January 2015, from the recommendations from the series of Monsoon Forum events).

2.3 Recommendations and next steps

Work with potential multipliers to fine-tune and clarify their understanding and ability to widespread messages is critical to inform society as widely as possible;

Work on awareness with policy-makers and private sector is essential to inform sectors

Working with media, to establish a critical mass of journalists that know how to treat climate change beyond general reporting is essential to convey the correct message at national level; Use of broadcast media to scale up risk, preparedness and resilience messaging for national audiences is key to effective population based DRR and resilience approaches and should be continued. In addition more targeted media and communications initiatives need to be implement, using ethnic languages, broadcast, print and online platforms to reach communities that are vulnerable to climate extremes across Myanmar's different states and regions.

There are a number of private sector initiatives. It is essential that efforts are streamlined and not overlapping, to the extent of possible. For instance the DRR and Private Sector working group; the sustainable industry platform; and the initiatives of MCCA;

Production of common information and awareness materials: There is need to work with ECD and RRD to develop a common set of brochures, tutorials or other materials that are disseminated from national to township, local and community level widely, as part of a national information and awareness campaign; this should substitute projectised design of materials, which is costly and ineffective.

Improved generation and Consolidation of risk data and hazard information and skills development to translate into actions: Robust scientific data on hazards and risks needs to be generated and translated into usable formats for planners, managers and administrators to make sound risk informed decisions. There is high need for actionable studies, findings, briefs and information to help the work of the policy makers, but also to engage with the media, the civil society and others.

Information Management System for climate and weather information: A significant amount of information has already been produced but is scattered across agencies. A more coordinated Information Management System for climate and weather information is additional required to better manage the generation and dissemination of risk information. An information management unit would help coordinate and consolidate data and information. Some platforms already exist including MIMU however, for scientific weather and climate information DMH should be the technical agency to generate information and RRD could host the Information Management System. This could be linked to MIMU systems. Further data and information inputs should be provided by projects and programmes that are generating additional data. For example The MCCA's climate change vulnerability assessments provide detailed township level climate projections and spatial data of a number of townships and BRACED community resilience assessments and climate profiles can provide strong local level information on hazards and risks.

Integration of risk information into Township coordination committees: Integration of disaster risk consideration into regular local development planning, require institutional coordination & mechanisms at local levels. There are Township Management Committee, Township Planning and Implementation Committee and Township Disaster Risk Management Committee (DRMC). These should work jointly to

make the development plans disaster and climate risk proof. A framework where the committees can prepare better resilience investment plans and long term intervention will likely require higher level legislative direction.

Improve linkages and coordination between Climate change and Disaster Risk Reduction sectors: is important to move towards a more comprehensive resilience approach that incorporates understanding of a wide variety of shocks and stresses and their impacts. Climate change risk information and skills to translate into decision making must be integrated into training programmes and capacity development activities already being initiated by DRR sector. Officials, planners and contractors /investors should understand the possible impacts of climate change on their project and the linkage with natural disasters. Further engagement with planners, investors and business will support integration of climate and disaster risk information into plans and identification of interventions to mitigate these risks. Climate change issues should also be incorporated into existing training programmes and education curriculums. Government training centre for disaster management, and other professional institutes can be approached to incorporate a training course on risk informed planning. DRR working group, MCCA can lead the process of development the training course based on the needs assessment.

4. Risk and resilience Assessments and Planning

3.1 Consortium approaches

BRACED

When BRACED was designed in 2014 community participatory assessments to understand community development challenges and risks that might impact on community development were very limited and only undertaken in a scattered way through NGO and development partner project activities. BRACED produced a consolidated community disaster and climate risk approach and linked into community development planning processes. Community Resilience Assessments (CRA) identifies the underlying drivers of vulnerability in communities and specifies what climate extremes and disasters (i.e. rapid and/or slow onset) the community is exposed to and how different people (men, women, boys and girls) are affected by understanding the different sensitivities within the community. The tool identifies both disaster and climate related sensitivities as well as highlighting the wider shocks and stresses the community are vulnerable to. In addition the tool also helps assess capacities within communities identifying existing strengths that can be built upon. This data is then used to identify and prioritise actions for strengthening resilience to disasters and climate change.

Climate and weather information is key to developing scenarios for communities with which to make decisions on key community resources, livelihoods and plans. By comparing community perceptions information and validating this against historical trends and weather/climate forecasts, BRACED Myanmar Alliance partner support communities to develop evidence based resilience action plans to address climate extreme events

The Alliance has developed the Community Resilience Assessment and Action Handbook, which has been translated into Myanmar language to help guide communities and field staff on how to collect and analyse resilience information. The handbook emphasises the use of secondary and scientific data to validate community information and develop scenarios to support community decision making.

The process has now been implemented across 155 communities and action plans implemented serving a wide variety of community infrastructure and services. Now that community planning is being

considered on a wider scale, experience from community resilience plans should be extremely relevant to government planners and other projects undertaking community assessments.

BRACED has additionally supported 8 townships to review and update their Township Disaster Management Plans (TDMPs) highlighting key risks and developing action plans for township officials to improve planning and response to disasters.

Township Environment Assessments (TEA's) have also been produced for all 8 BRACED townships highlighting ongoing development activities and potential environmental risks. These are linked to the community resilience plans showcasing the linkage between environmental management and community resilience. The TEAs have resulted in Environmental Management Plans (EMPs) for each township.

MCCA

Vulnerabilities to climate change were assessed in townships in three main eco-systems: Labutta in the Ayeyarwaddy Region (delta area), Pakokku in the Magway Division (dry zone area) and Hakha in Chin state (mountain – in progress).

These assessments showed high levels of environmental, socio-economic and infrastructure vulnerabilities to the current climatic conditions, establishing a current risk index. With down-scaled projections at local level (25km resolution for Pakokku and Labutta), the assessment anticipated potential effects in the next decades given the current vulnerabilities.

Effects of climate change were projected by sector, such as agriculture, water, housing and transport, and illustrated on maps. These spatial projections were particularly useful in community meetings for adaptation planning. The spatial structure of the township in current conditions was also analysed, highlighting the current services and functions delivered to support life in the townships. Climate projections were then superposed to assess how these climatic features will affect the spatial structure and functionality of the township.

The assessments were completed with potential adaptive measures discussed with the communities to address sources of vulnerabilities and local resilience plan adopted consequently

Based on the assessment of the vulnerabilities against current and projected climatic conditions, the townships and village administrators prepared plans for adaptation and resilience building over the mid to long term. The outcomes expected to avoid *Business As Usual Scenario* to materialize (high climate change impact) and to instead create a scenario where resilience can be built: 1) Achieving a healthy eco-system that sustain life of people and their environment; 2) A diversified and resilient economy that promotes development; 3) Resilient and sustainable infrastructure that protect people and support development.

In addition, dedicated *Social Sustainability Plans at township level* were also designed to complement the *Local Resilience Plans* with activities tailored to promote and support those groups that may have specific vulnerabilities, including the elders, women, the youth, children, and people with disabilities. These plans included specific advice on how to tailor activities of adaptation to special needs. As a result women-led adaptation activities, centred on economic empowerment and decision-making are to be implemented in Pakokku and Labutta.

Specific gender analysis contained in the vulnerability assessments informed these plans, and consequently the adaptation actions.

MCCR

MCCR invested in developing Community Level Disaster Management Plans, School safety planning and institutional plans like Township level contingency plans and Mass Casualty plans for the Yangon General Hospital.

At community level, the project formed the community groups on DRR and through them the planning was coordinated. Basic inclusive CBDRM manual adopted by MCCR was used as the tool and the methodology to mobilize the planning at community level. 06 Township level plans were coordinated through the Township administrator and the Township Disaster management committee. Efforts on strengthening the hospital preparedness for Mass Casualty Management - MCM, MCCR supported the MCM plan for Yangon General Hospital.

3.2 Lessons, successes and Challenges

Long-term resilience planning, across systems and sector, is essential as climate change will have effects across systems that require simultaneous understanding and action. For instance, low levels of education and vocational training coupled with reduction of agricultural productivity in a cluster of villages will necessarily fuel migration without dignity, as employability abroad or in main cities will be reduced;

In the current governance context there are limited long-term planning, programmatic and budgeting capacities. Planning in this context over the mid to the long-term is seriously challenged. This aspect should be treated as a matter of urgency if resilience is to be planned and built at township level;

Investment for capacity building of technical team for community resilience assessment (CRA): CRA's have integrated a number of technical components including disaster risk management, climate change vulnerability assessment, climate and weather information interpretation and translation, gender and inclusion assessments, livelihoods and community systems assessments and prioritisation exercises including cost benefit analysis into a single process. The skills and practical experience required to undertake these assessments requires significant time investment and on-site training. After 3 years of implementation BRACED field staff are competent at undertaking CRA's. Any new projects should ensure adequate investment in training (in different skills) and providing onsite support to ensure the quality of CRA action plans.

Review of secondary and existing information: Many communities have already received prior development support or undertaken some type of assessment. This information should be fully utilized and resilience assessment should start with a thorough analysis of secondary data.

Short to long term planning: The first round of community resilience assessments predominantly resulted in prioritization by communities of activities that will support resilience to fast onset disasters including floods, storms and cyclones. Over time communities start to consider medium term actions including water management and agriculture and livelihood resilience to deal; with water scarcity and climate change impacts. It is important to highlight the range of potential shocks and stresses that communities may face, however a phased approach is recommended to first of all tackle immediate shocks whilst revising community action plans regularly to address longer term stresses.

Ensure inclusive decision making with prioritization and screening tools: There are many instances of uneven power dynamics within communities where certain members will have more decision making power than others. In these cases selection of community resilience activities may not be representative of the wider community and may not benefit the most vulnerable groups. A set of prioritization tools including multi criteria analysis and community cost benefit analysis tools are available in the BRACED CRA manual and can help remove some of the bias in selection of community resilience actions.

Joint Planning with Government: To ensure common understanding between project staff, community members and local government departments it is important to have early coordination meetings between stakeholders to agree common methodology before going to communities. This should also support community members to get a basic understanding on local policies and strategies which will help them identify potential support services and channels.

Capacities need to be built for sustainability: Related to the above lesson community capacity and leadership needs to be built to be able to update and review their community action plans using new risk information. This is key for sustainability of community resilience plans. Skills and resources required include: access to new and updated risk information and skills to translate, sustained relations with key government departments for continued support and resources.

DRR is not always prioritised; at some communities Disaster risk reduction is secondary priority with the longer-term development priorities, especially with the communities living in camps. Whereas at the regional and union level DRR remains the priority and efforts in reflecting the priority at the community and township level is still needs more investment and coordinated efforts.

Multiple risk assessment and planning approaches: There are other plans linked to resilience and disaster management produced at township level by different projects with similar methodologies. This hampers the optimal use of resources, distract the authorities and ultimately may affect the relevance of any such plans. Ensuring there is coordination and integration of resilience, climate change and disaster management plans is of outmost importance

3.3 Recommendations and next steps

Harmonisation of Risk Assessment tools and methodologies: A government led and approved set of guiding principles for risk informed development plans would help define the approaches and tools used by various development partners who would be required to follow those instructions while supporting local planning initiatives. It is recommended that DRD/RRD/GAD and the ECD of MoNREC review the existing tools and process used by different donor funded community based disaster management and resilience projects. Linkages with rural development planning should be identified and guidance provided to development partners to coordinate tools and approaches. The government could convene a joint meeting supported with development partners to identify the guiding process steps and principles for risk informed development plans based on the lessons learned from past and current projects. Existing can be reviewed and modified to a harmonized planning tools for different spatial level covering community/township/regional and National.

Development of Data base of Development Plans and risk inclusive planning processes: All completed village plans (or summaries) could be stored in a web based Information Management System as a



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resource directory for preservation and dissemination to the wider users including Planners, Practitioners, partners and Policymakers. This database can also be used as a resource depository for the government, INGOs, NGOs working in Myanmar. This would be and useful instrument to introduction, expansion and scaling up the risk informed planning. Findings from other studies like risk and vulnerability assessment, relevant Laws, polices and frameworks, other relevant data

It is crucial that state/region, district, township resources, as well as the donors' (such as community driven development grants) are informed by mid to long-term resilience planning; the vulnerability assessments and related plans should be used as 'filters' or framework to analyse requests from village and urban ward level as well as to guide international and regional investment;

Implementation of risk and resilience plans; budget allocations and scaling up the plans up to treasury (covered by BRACED research).

Risk is not static one time planning is not enough: The resilience assessments and action plans assess current known risks and project (based on currently available information) and what is likely to occur in the future. As new information becomes available and conditions change community plans need to be updated.

Joint DRR and CCA planning: At community level demonstration of joint CCA and DRR planning has been shown (though longer term adaptation planning still needs strengthening). At township level there are still parallel processes being initiated. In Labutta three separate planning processes have been undertaken including Township Disaster Management Plans (TDMP), Township Climate Change Vulnerability Assessments and Township Environmental Assessments TEA. The implementation plans for all these plans should be reviewed and consolidated into a single action plan for township departments and officials. The key process steps of these planning processes should be reviewed and a single planning process agreed upon to cover DRR and climate change that acknowledges environmental management.

Phased resilience planning: BRACED Myanmar Alliance has identified three phases of resilience preparedness and planning at community level that are recommended for consideration in new resilience planning projects focused on community level.

- **Early planning** and lifesaving actions for immediate risks,
- **Intermediate resilience planning** for sustainable access to food, water, livelihoods and community services in the face of shocks and stresses,
- **Long term planning** with regular review, update and adaptation of plans incorporating new risk information to ensure long term sustainability of community development activities

Strengthening Risk sensitive development planning covering contingency plans; given the multiple organization present at the community level / township level, a coordinated development planning on risk information is recommended for safer investment and making the developments resilient. This needs a joint realization of a common planning instrument and an inclusive methodology. It is recommended the government is investing this as a pilot through the MAPDRR in some selected communities.

5. Implementation, training and capacity

5.1 Consortium approaches

BRACED

The BRACED target communities have prioritised and implemented key resilience measures, comprising soft skills such as the capacity to be better able to anticipate shocks and stresses, harder disaster mitigation and climate change adaptation measures. These initiatives helped to support the community whilst simultaneously strengthening community resilience.

Prior to the full assessment, BRACED first emphasised the activation and establishment of community groups, including village savings and loans associations, Self Help Groups, Village Disaster Management Committees, school disaster management committees and resilience groups and microfinance services.

Community members were educated on climate change and its effects through multiple mediums, including community awareness sessions, trainings, distribution of IEC materials, and public service announcements, which helped to raise awareness in the community of the dangers of climate change.

The CRA's actions that have been prioritised by community members are the use of a set of tools, including cost benefit analysis and multi criteria analysis. These tools were used to remove bias in selection due to endemic unequal power dynamics. The BRACED then supports a wide variety of direct implementation activities highlighted in the table below. The community members provide financial and in-kind contributions, and government departments provide additional technical review and oversight, material and financial contributions.

The key sectors covered through BRACED project include:

Sector	Completed activities
Education Sector	Schools Disaster management committees Resilient Youth groups and climate awareness sessions
Health Sector	First aid training Health centre construction
Water and Sanitation	Pond protection and Concrete pond construction Reinforcing walls and landscaping to protect water sources Water pipelines Gravity water supply system
Community infrastructure	Soil filling and concrete road construction Construction of school drainage Nursery school construction and renovation Playground for nursery students Soil filling and fencing construction for community health centre Grass cutting machine to protect from snakes in long grass Embankment construction
Environment Conservation	Mangrove restoration, tree planting Waste management Drainage channel clearance and dredging Soil filling to protect land slide
Agriculture and livestock Sector	Climate resilient sustainable agriculture Pig and livestock rearing
Financial safety net	Micro finance activity Village Saving & Loan Association (VSLA) Self Help Group (SHG)

Selected key results at the mid line:

- Over 40,000 households were mobilized through comprehensive resilience assessments and action planning across 155 villages to address climatic shocks and stresses.
- Over 140 communities resilience plans were implemented improving livelihoods, agriculture, community infrastructure (evacuation centers, access roads, water supply systems, sustainable agriculture actions, etc.) and improved financial services.
- 2,600 people (around 90% women) have received access to financial services through BRACED supported microfinance, SHGs and VSLAs.
- 87 VSLAs/SHGs were established and operationalised, engaging 1,775 members (around 90% women) providing them with improved capacity, facilitation support and seed grants.
- Around 1,000 microfinance clients are provided with affordable loans to improve their livelihoods and cope with climatic shocks.
- Over 5,000 women and 2,500 children (50% girls) were trained or educated on climate change adaptation, resilience, women's leadership and community resilience assessment, and engaged in local level planning and decision making.

Capacity and training

Various capacity and trainings were provided to stakeholder through BRACED covering:

- Organizational Development, bookkeeping, market access, inclusiveness, good governance related to DRR & CCR
- Community Resilience assessment and awareness raising
- Proposal writing for CBOs
- Leadership and strengthening trainings for CBOs/VDMC
- Financial management (CBOs, VSLA, SHG) and Operationalising VSLA, SHG
- Women Empowerment and Leadership
- Schools based trainings (students, teachers, school management committee)
- Climate Smart Sustainable Agriculture
- Livestock training
- Basic Disaster Management Course
- Resilient construction workers training
- Climate forecast, Hazard ready assessment and audit, and EWS
- SEA Implementation
- SEA and Climate Change Workshops (Consultation Meetings
Media and Communication Training to MRTV, Government and other media

MCCA



MCCA is currently implementing activities prioritized by the townships, such as construction of shelters, drainage systems or awareness-raising activities, through grants directly managed by Urban Wards and Villages. This includes:

Eco-system restoration and enhancement: For example, replanting mangroves to ensure protection from storms, strong winds, re-establishing the conditions for fishery, provisions for wood and for cooking and building materials; awareness raising; soil management etc. For example, in Labutta the MCCA is replanting 10 acres of mangroves with the support of the Forestry Department, FRED A and the activism of leaders in the community to prevent erosion in an area exposed to storms and land loss. This work is linked to awareness raising on the importance of mangrove plantation and management. This initiative was organized by the MCCA with FRED A in Thin Gan Lay Village, Labutta Township, with 108 participants (25% women) from 9 villages: Oo Yin Kone, Sin Chay Yar, Kwin Yar, Sar Pho Su, Tha Htay Kone, Da Mya Chaung, Na Lin Kyaw, Ohn Ton Kone and Thin Gan Lay,

Resilient infrastructure and services at community and household level: Safer housing construction, cyclone shelters; elevated multi-purpose platforms drainage and flood control schemes and water management. In flood-prone Urban Wards 13&14, elevated water tanks were constructed to service the entire resettlement area with water that is safe from contamination and available all year round. The management of the water system is now assigned to a women's committee to generate increased livelihood opportunities. The water tank was constructed to connect to a multi-purpose shelter that ensures that the community have a secure school building that can double-up as a shelter for the vulnerable people during the July/August floods. Drainage for areas repeatedly flooded improved the life of almost 13400 people, as floods persisting for two weeks create significant economic impact (further detailed in the Vulnerability Assessment findings).

Socio-economic improvement and livelihoods: This includes vocational trainings. In Labutta, 30 carpenters were given accreditation by the Ministry of Construction after a workshop given by the MCCA in cooperation with BRACED, enhancing the employability of the participants and improving their capacity to build safer houses. Other livelihoods activities related to women's groups (in progress).

The above activities all contribute towards raising the awareness of communities and township authorities of the objectives of the BRACED project.

Capacity and training

At the request of the RRD and the ECD, the MCCA developed a tool to train national, regional and township staff on climate change adaptation, with links to Disaster Risk Reduction.

This complete 5 to 7 day training focused on Climate Change Adaptation and Disaster Risk Reduction. This training was delivered at the Disaster Management Centre in Hinthada and at the Environmental Conservation Department in Nay Pyi Taw, with participants from national and state/regional levels. This training is now to become a toolkit for ECD to train its staff, among others. The toolbox contains:

- **Syllabus of the CCA/DRR course and relevant annexes**
- **7-days course power-points** as follows:
 1. *Module 1:* Understanding climate change and disaster risks (4 sessions – 1 Day)
 2. *Module 2:* Climate change adaptation and disaster risk reduction (5 sessions – 2 days)

- Detailed Vulnerability Assessment
- Hospital preparedness
- Earthquake scenario

Lessons, successes and challenges

Implementation of adaptation and resilience activities require strategic planning that integrates village level and urban ward needs, but integrated in larger territorial scope: The MCCA approach was to select areas where interventions (such as community water tanks) could have a strategic impact on the territory, based on the gaps identified spatially through the vulnerability assessments.

Activities should be prioritized that can yield benefits across systems: For instance, carpentry training serves resilience as it can maximize local skills and increase employability, while also creating a critical mass of carpenters that can construct safer private infrastructure (housing in particular).

There is need to invest in the adaptation of socio-economic initiatives that can be sustained within the local market, but also to acknowledge that climate change will create lasting effects on the ability of communities to extract livelihoods from climate-sensitive agriculture. In addition to essential Disaster Risk Reduction activities, the need to protect agriculture from the negative effects of climate change, the diversification of skills and vocational capacities and the need to prepare some of the communities for migration should also be prioritised.

There are significant positive cost benefits to community resilience interventions: As evidenced in a community cost benefit analysis of 3 BRACED case studies undertaken by ITAD/ADB Study¹, all the case studies, estimated economic benefits over a 10-year period (typically based on 12-18 months of post intervention data) are significantly greater than estimated costs over this period.

The highest returns are from relatively small-scale infrastructure investments planned with communities and local government, drawing on BRACED finance with community contributions of labour. Microfinance and pig breeding interventions have generated positive net financial returns for the households involved. This contribution to improved livelihoods has been seen within 12-18 months of the interventions, however, we will only know whether the additional capacity to absorb and adapt to shocks and stresses translates into increases in perceived resilience when the end of programme evaluation is undertaken.

Linking preparedness to longer term development: MCCR's efforts have been successful in preparing the target communities to identify disasters. The recent assessment shows more than 75% of the target communities met the requirements set by MCCR on preparedness. Their preparedness capacity is multiplied if linked to a development process. Linking the Preparedness Plans to the Village Book (village development plans facilitated by AAM) has shown that the communities are more confident and more connected to applying their knowledge year round rather than limiting it to seasonal hazards.

Community grants and management: Sustainability of adaptation measures undertaken are maximized when communities are directly awarded grants with the responsibility of managing the outputs. This

¹ ITAD for Asian Development Bank RESILIENCE DIVIDENDS OF COMMUNITY-LEVEL INTERVENTIONS: EVIDENCE FROM MYANMAR DRAFT FINAL Resubmitted 9 May 2017

practice should be replicated when possible. Under MCCA, BRACED and MCCR, communities were transferred grants and responsible for development if their own action and implementation plans

Early engagement of key township authorities in planning and design: For community level planning, in order to stimulate interest of authorities to both engage in the implementation of activities but also to take away key learnings of the project, they need feel part of the process and therefore be engaged early on in the project design. Concrete measures to engage department can include joint planning and inception workshops, regular coordination meetings and joint field level monitoring visits to review progress and challenges.

Analyse existing plans and strategies to avoid duplication of activities: a thorough review of local plans and strategies should take place prior to implementation to understand the overlap of interests and resources for implementing activities. Where common activities exist, project partners should revert to the township administration to lead activities, and I/NGO partners should find a supporting role to ensure that community needs are fully integrated into implementation activities.

Planning activities and community engagement around seasonal calendars: Infrastructure activities cannot be implemented during the monsoon season and should be planned around the drier months of the year. This may influence the whole resilience planning process and should be a consideration when designing projects that require hardware support. Additionally there are key times of year where community members will be fully engaged including harvesting times, festivals and elections etc. Key activity workshops, evaluations and community engagements should not be planned around these times. It is recommended to undertake a seasonal calendar assessment early in community planning process to understand when not to plan activities.

Shared implementation contributions: To ensure community and government engagement and sustainability of project interventions, long term maintenance and management of infrastructure and hardware projects should not provide 100% contribution to project activities. A shared contribution also distributes ownership over the activities. According to BRACED partners procedure activities should only be implemented if there is a shared contribution. Government resources are often contributed including materials, technical oversights, and reviews and financial contributions.

Behavior change is key to adaptation and adoption: Resilience planning involves a spectrum of potential solutions to address natural disasters, climate change and wider shocks and stresses. It should not be assumed that communities will automatically adopt new adaptation approaches and technologies. As with other development technologies and practices, approaches to encourage behavior change need to be integrated into resilience planning which include increasing awareness of tools and approaches, demonstration of the benefits of new techniques and technologies and improving accessibility (of services and financial capital) of technologies.

Well thought implementation/delivery mechanism: Myanmar is still in the process of building its decentralized planning and budgeting system. Many planning and budgeting processes have a weak link between village level authorities with township/district level authorities. The community based resilience programme should identify and plan delivery mechanisms that bring both community members and township/district level stakeholders together. Good examples from BRACED have shown a strong collaboration between communities and sub national government departments where both technical

support and direct finance have been provided to implement community resilience activities, including water infrastructure and resilient agriculture.

Time expectations of government staff: Government staff are extremely busy and therefore often unable to provide sufficient time to observe and understand projects. Projects should therefore agree on the level of engagement and inputs from key departments that they will require so as not to disturb core departmental activities.

Balanced Approach in Sittwe: ACF and MCCR have taken forward a conflict sensitive approach to DRR programming at the strategic level by adopting a 'balanced approach'; working in the same number of Rakhine Buddhist and Rakhine Muslim communities. A 'balanced approach' is a requirement of local authorities and demanded by Rakhine Buddhist communities, and has proven effective in building tolerance within Rakhine Buddhist communities and local government.

However, this approach is incomplete, as it does not consider the wider context of conflict. The selection of communities and overall MCCR program design was not informed by conflict analysis nor has conflict sensitivity been considered at operational and programmatic levels. Recommendations for a program to be fully conflict-sensitive the program must include specific conflict-sensitive outcomes and demonstrate consideration for conflict sensitivity throughout the program cycle, by considering program impacts on conflict dynamics.

Training and Capacity

It is essential to create a critical mass of national, state and township staff that can become multipliers of knowledge and know-how on climate change; these staff must work across departments and sectors.

The existing toolbox has been tested successfully; future editions can further improve the disaster risk reduction information. However, there is need for broader cooperation between ECD and RRD on these aspects, and amongst the consortium agencies.

It is crucial that the right participants are trained. MCCA and its partners ensured that the trainees came from diverse backgrounds and would be able to conduct trainings. Unfortunately, the system of allocation of training opportunities are often not based on the relevance of the personnel, but on their availability. This should be prevented as much as possible.

There is absolute need to align capacity-building need offer to the actual demand oriented by a policy or strategy (in this case the MCCSAP) and to ensure beneficial

Recommendations and Next steps

Continuation of Earthquake preparedness in urban schools; the project was very successful and effective in working with schools on urban safety, yet given the short timeframe of the projects and week priority in planning systems at schools it remains a challenge to complete the action. MCCR trained the taskforces, teachers and parents in leading the activities, which helped to effectively use the time, yet sustaining this practice remains a challenge if proper priority is given for safer education.

Time for DRR vs multiple priorities at township level; At a higher level there is a focus and time allocated with dedicated staff, but at the sub regional level prioritising DRR activities remains an issue for staff with time and competing priorities.

Access to technical information: Resilience project implementation requires access to a wide variety of technical information and backstopping. Establishment of a technical working group for discussion and sharing on technical issues could be one solution in a disparate consortium environment. Outside of project set ups this could be challenging but could be facilitated by government departments, for instance the Department of Meteorology and Hydrology (DMH) could lead a TWG on weather and climate information linked to the Township Planning Committee.

External technical oversight of project activities: It is recommended that projects develop strong relationships with relevant engineering and technical departments, such as the Department for Rural development (DRD) to oversee the implementation and technical specifications of any infrastructure or technical projects. These departments can also support ongoing management and maintenance of community projects to ensure sustainability.

Recognise behaviour change as a key step to resilience building: People at risk of natural hazards need to understand what risks they face and what can be done to mitigate them. Yet social and behavioural change is complex and often requires more than information to prompt action. Communication needs to integrate behavioural change principles and target key barriers (behaviours and beliefs) to taking action such as fatalism, gender roles, and traditional belief systems.

Establish platforms for dialogue between communities and local government and build proposal writing skills: It is difficult for communities to approach government staff to propose community activities or to seek technical support. Therefore, CBOs should be linked with government technical staffs to seek their support to build the resilient systems and infrastructure. This has been one of the key successes of BRACED in establishing platforms for dialogue between communities and local authorities. Provision of proposal writing training to CBOs and community members have proven extremely effective where community members have developed and presented proposals to various government departments.

Build on what government systems exist at a local level: Project based structures/institutions created by the development agencies at local level deliver the project activities/resources, but often do not remain functional once the project phases out. Development agencies including NOGs should provide their assistance by aligning their planning and budgeting with the existing government system at village, village track, township, district, state/region and national level. Village disaster management committees or development committees have been identified as government recognised bodies at village level who can manage and maintain community resilience activities.

Project phase out and hand over: Project exit strategies and phase out should be planned in the design of project activities to ensure a full handover of project tools, approaches and lessons to relevant stakeholders including CBOs and local government departments. The presentation of lessons and learnings is important and should be conveyed in a user friendly format.

Increased knowledge and awareness of volunteers/community champions: The government should increase training of community volunteers, in particular, youth volunteers, from across states and regions and enable them to support villages during the preparation of the development plan. This is already being initiated under a programme of RRD and a number of other programmes including the Myanmar Red Cross Society.



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If volunteers are trained on climate change related issues, they will be able to transfer their climate risk related knowledge to wider community members to be considered in preparation of local development plans and identification of resilience activities. In projects supported by development partners it is recommended to establish volunteers or community champions who will facilitate and support community planning. These advocates should be embedded within communities and provide support beyond a single project activity.

BRACED - Better Linkage between planning levels: In Myanmar, villages and townships are the primary focal areas for preparation of development plans. Disaster and climate change risk informed planning should be initiated at various levels through Township Planning and Implementation committees and Village and Ward level planning committees. Development partners, INGOs / NGO and Civil Society organizations can jointly engage in dialogue and advocacy with policy makers of the government at these levels. Village tract administrators should also be consulted and engaged in any village level activities to leverage findings across the village tract and to encourage information sharing between village and township authorities.

Prioritizing resilience building measures and resilient development activities at the community level will require matching bottom-up planning and top-down programmes. Medium term village development plans and accompanying annual village investment programmes must be coordinated and consolidated with township development plans and budgets to encourage funds from union budget and international donors to be channelled to risk informed development activities based on community needs.

An Integrated Approach to Mitigating Conflict and Disasters: All communities in Rakhine State are vulnerable to a range of risks. Exposure to cyclones, storms, flooding and other natural hazards intersect with manmade hazards such as conflict and discrimination. Individuals with less economic, social, and political security are in turn more vulnerable to the impact of these risks, particularly if they have limited or negative coping mechanisms.

The complex risk landscape in Sittwe Township warrants a more holistic approach to mitigating risk. All FGDs and KII's reveal that conflict-related risks outweigh concerns related to natural hazards. Moreover, there is clear dynamic between conflict and disasters that influences the extent of harm experienced by communities from both phenomena. An integrated approach to conflict and disasters should include, and yet go beyond conflict sensitivity, by seeking to mitigate the possibility of increased conflict as a result of existing risks and future disasters.

Resilience Services:

Eco-system services provide multiple benefits to the communities in terms of mitigation of disasters and protection from extremes, as well as supporting and provisioning services that sustain life and livelihoods. Climate change would affect those adversely in the next years, coupled with unsustainable management of the resources available. In Labutta this concerned mangroves, fishery, water and soil management; whereas in Pakokku logging upstream, erosion in the riverbanks, unsustainable use of the scarce water resources were flagged. Therefore in both townships the following long-term objectives were formulated:

Maintain and enhance healthy eco-systems that maintain life. Depending on the township, this can be achieved through different *Expected Results* overtime

- a) **Restore, maintain and enhance forest coverage**, by means of reforestation, community forestry, sustainable management of forests, alternatives sources of fuel (cook stoves, solar), build awareness.
- b) **Restore and ensure protection and sustainable management of resources such as fishery**, by protecting the habitat, preventing unsustainable practices among others
- c) **Enhance and protect water sources** by means of water management, enhancement of water harvesting practices, efficient irrigation among others

Diversify the economy and enhance livelihood opportunities. Resilience depends on productive systems in both townships that are climate sensitive (temperature, salt infiltration, heavy rains). In addition, and very importantly, economic sources are not diversified and this puts the communities at risk. Therefore, they agreed to:

- a) **Protect productive systems** in agriculture and fishery through alternative growing techniques adapted to climate change
- b) **Learn new skills** to ensure better employability within the township and abroad and diversify the economy. In Pakokku women proposed Book keeping and Dressmaking
- c) **Enhance financial security by means of savings, loans and other systems**

Build resilient townships through infrastructure and public services (such as water) and disaster risk-sensitive town planning and management. In Labutta 95 percent of housing is at risk, and 90 percent of water sources are unprotected surface water from rain collection. Salinization, strong winds and cyclones, inundations and higher evaporation put the habitat and the people at risk. Therefore the townships agreed that they should work on Expected Results that contribute to:

- a) **Establish a network of safety for communities** with resistant schools and health posts, shelters that double up as schools, early warning systems, community preparedness, and achieve community water-safety through community water collection and management for access to water throughout the year, as a mix of hard and green infrastructure (trees-shading, cyclone shelters, embankment)
- b) **Improve housing, both in terms of construction (new housing and retrofitting) and water harvesting and collection at household level**
- c) **Maintain and enhance connectivity despite the expected increase of risks produced by climate change in order to sustain development and trade.**

Training and capacity Building

The use of the training tools should be promoted at DNMC in Hintada: and in other instances as much as possible, in order to widespread knowledge of climate change in civil servants; however, NGOs, CSOs, and private sector organisations should be also targeted. Capacity building for policy makers should move away for short term and one off trainings in favour of on the job trainings, which will enable the participants to retain and apply the new skills. ;

Longer-term support for staff to attend Masters courses or certification should be explored, in order to create a critical mass of personnel knowledgeable of climate change from different sectors; In addition to capacities being built at national, state/regional and township level authorities, climate change and



disaster considerations should be embedded in university curricula, and thus will also reach professionals who work in the private sector, civil society and non-governmental agencies;

Embedding experts within departments is a successful strategy as it provides resident, reliable and flexible assistance required to build institutional capacities in this phase in the country, as well as fresh ideas and building a momentum for change;

A long-term presence within a Department, in particular ECD, would help to build a strong relationship between the programme (MCCA in this case) and the authorities, which has led to successful products, as well as a recognizable, reliable and readily available technical assistance. However, the presence in the national government limited the flexibility in the action at local level, and required a considerable amount of time to be allocated to policy matters.

Training and capacity-building opportunities should be offered to different target audiences beyond government and target communities. Youth network groups, women's associations, private sector associations and NGOs could be targeted for climate change training.