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## A LOCALIZED APPROACH IN RISK-SENSITIVE DEVELOPMENT PLANNING TO BUILD RESILIENT COMMUNITIES: AN EXPERIENCE FROM NORTHERN SRI LANKA

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**Abstract:** Risk-sensitive development is an essential component of building resilient communities. It provides an opportunity for sustaining development investment as well as reducing future risks at community level. Development plans should integrate disaster and climate risk information systematically, to overcome increasing challenges of disaster and climate risks and to optimise the use of resources for effective delivery of development outcomes. While development plans identify needs and priorities of communities, the process of formulating development plans itself intends to empower communities.

Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) integrated development strategies will enable state and non-state stakeholders to implement risk-informed actions in disaster prone areas. Formulation of risk-sensitive village and regional development plans has been promoted in the recent Community Resilience Framework of Sri Lanka. This paper presents an approach and process in developing risk-sensitive development plans in a pilot project in the Northern Sri Lanka moving from stand-alone DRR initiatives to risk-sensitive development. Key lessons from the pilot project include: involvement of local authorities from the outset of the risk-sensitive development planning process; formulating a system to monitor the complete risk-sensitive development planning process; and creating a community of practice to promote risk-sensitive development planning at divisional level for future upscaling.

**Keywords:** community resilience; development plan; disaster risk reduction; risk-sensitive.

### 1. Introduction

Year 2015 was marked by three global landmark agreements by United Nations (Sendai Framework for Disaster Risk Reduction 2015-2030, Sustainable Development Goals 2030, and 21<sup>st</sup> Conference of the Parties (COP) to Paris Agreement on Climate Change) [1], which are mutually reinforcing at the policy level.

Increased focus on community resilience to disasters is driven because communities across the globe are increasingly threatened by devastating disaster events [2, 3]. Existing hazards evolve into disasters due to the failure in resilience of communities [4] to withstand disturbances in their environment. Less resilient communities lack effort to prepare, withstand, respond and to effectively recover to an emerging

risk. It becomes important to mitigate identified risks and strengthen the resilience of communities exposed to those risks. It will help communities at risk to reduce destruction caused by the disasters and to recover from disaster impacts. Speed and extent of recovery from disasters differ across communities, according to their socio-economic status and history of enduring natural disasters [5].

Enhancing community resilience to disasters is a key approach in disaster risk management [6-9] and requires at-risk communities to measure their level of resiliency and devise plans [3, 5]. Risk-sensitive development plan is an essential component to build resilient communities [10] and a key strategy for sustaining development investments as well as to

reduce the future risks at the community level [11].

This paper aims to review the approach and process developed for the implementation of the pilot project to develop risk-sensitive GN level development plans in selected GN divisions in Killinochchi and Mullaitivu districts in the Northern Province of Sri Lanka. The pilot project is part of the 8<sup>th</sup> Disaster Preparedness program of the European Commission Humanitarian Aid department, known as DIPECHO. 'GN' stands for Grama Niladari division, which is the lowest administrative unit in the Sri Lankan state administrative structure. Community Resilience Framework (CRF) – Sri Lanka was used as an overall framework along with its implementation guidelines developed by the Disaster Management Centre to guide the implementation of Community Resilience Framework at the selected Divisional Secretary divisions in both districts.

Increasing resilience of communities should be part of any development process, rather than being considered as a stand-alone process itself. This necessitates that one of the key aims of development be to strengthen the inherent and adaptive resilience of communities:

- i. resisting the occurrence of disasters in the first place if at all possible,
- ii. mitigating the negative damages and losses due to the occurrence of disasters,
- iii. absorbing the shock, accommodate and adapt to the disturbances of disasters successfully to avoid further deterioration of the disturbance,
- iv. responding to the consequences of disturbances effectively to avoid complete collapse of the communities,
- v. recovering faster "building back better" from the losses of disasters, and
- vi. preparing pro-actively to face the next disaster integrating "risk reduction" and "building better before" strategies. [Adapted from UNISDR [12] definition for community resilience]

Actions targeting to mitigate disaster and climate change risks should be integrated into development plans, to achieve sustainable development goals[13]. An overall development framework that integrates disaster and climate risks to build resilient communities is shown in Figure 1.

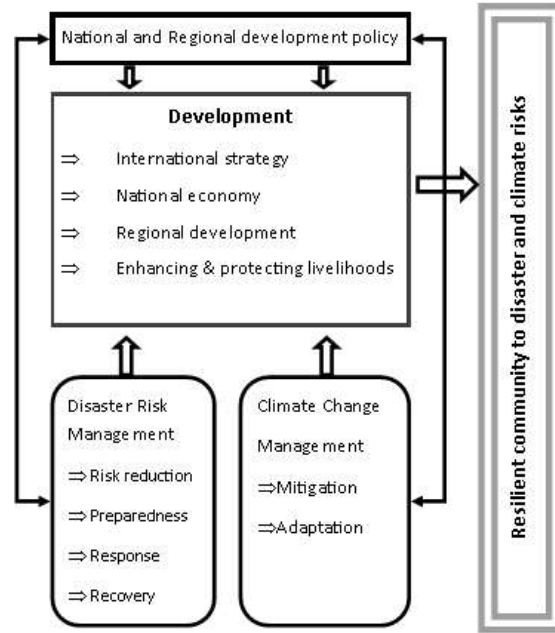


Figure 1. Climate change, DRR and development linkages for resilient community, adapted from Schipper and Pelling [13].

## 2. Sri Lanka and Disaster Resilience

Sri Lanka is exposed to multiple natural hazards. The main hydro-meteorological hazards are droughts, floods, landslides and cyclones, while seismic and tsunami hazards have been infrequent[14]. As such, its population, their livelihood and infrastructure, are at risk of damage and destruction[15] which make building of resilient communities one of the cornerstones of any development initiative.

The Sri Lanka Disaster Management Centre in consultation with the Disaster Risk Reduction (DRR) Technical Working Group (TWG) has drafted the Community Resilience Framework (CRF) with support from DIPECHO in 2015[16]. Community Resilience Framework has been at the stage of wider consultation with DRR and Development stakeholders[17]. The draft

CRF is being tested in five districts of Killinochchi, Mullaitivu, Puttalam, Rathnapura and Kurunegala. CRF is expected to be validated and finalized based on the lessons from the pilot and recommendations from the wider consultation at national and sub-national levels. During the pilot stage, DRR stakeholders have agreed to develop the capacities of key state actors who play an important role in planning development projects and activities at district level.

### 3. An approach to risk-sensitive development

Due to the increase of frequency and intensity of disasters and their negative impact on development, communities and their duty bearers are faced with daunting challenges to safeguard the development investment. To overcome these challenges, elaborating risk-sensitive development plans is the first and foremost task at hand for local planners and for the community itself. ESCAP [18] defines risk-sensitive development as “integrating disaster risk reduction into development planning across all sectors of development that help to protect gains made towards achieving development goals” (p.9). The key question in this respect is to understand what type of development is needed to proactively reduce and manage natural disaster risks [19].

DRR partners of the Disaster Preparedness project of the European Commission Humanitarian Aid department (DIPECHO) devised a strategy in consultation with the Disaster Management Centre to pilot the definition of risk-sensitive GN development plans in the selected GN divisions in the Northern districts. Figures 2 and 3 depict the complete process adapted in the pilot implementation in two phases.

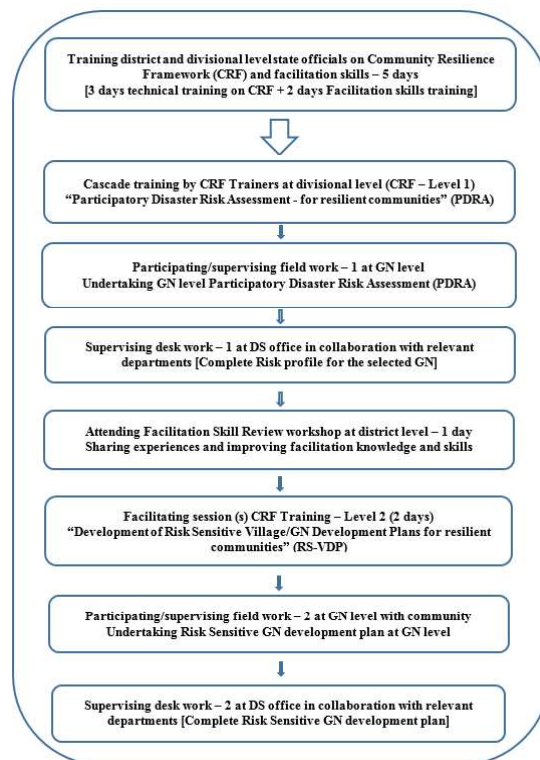


Figure 2. Phase I of the CRF implementation

#### 3.1 Process of developing risk-sensitive GN development plans

The phase I of the process (Figure 2) aimed at producing risk-sensitive GN development plans. The phase II of the process (Figure 3) will compile all GN development plans into a risk-sensitive divisional development plan and divisional plans will be compiled to district and provincial development plans, which will ultimately progress into the national risk-sensitive country development plan. There are numerous challenges to travel in this path, particularly in the phase II. Although phase II might appear as a quite idealistic scenario, it is not impossible to achieve. Nevertheless, phase I product is a good starting point.



Figure 3. Phase II of the CRF implementation

CRF implementation guideline proposes a mechanism for risk-sensitive development planning at divisional platform, which is the lowest administrative level of development planning in Sri Lanka. Figure 4 shows various stakeholders included in the divisional level platform.

The 8<sup>th</sup> Disaster Preparedness project of the European Commission Humanitarian Aid department (DIPECHO 8) strategy included three key processes within Phase I:

1. Initial training of trainers program on CRF for officers from the divisional and district secretariats (They are referred to as *CRF Trainers*). They were selected by District Disaster Management Centres, project partners and District/Divisional Secretaries. These officers are deemed to be key officers in the risk-sensitive development planning platform,
2. Cascade training programs by the *CRF Trainers* for the state officials working at GN level who are key government staff members (They are referred to as *CRF Facilitators*) for preparing risk-sensitive GN development plans, and
3. Preparation of risk-sensitive GN development plans in two staged approach in each selected GN division in the pilot project. This activity is carried out by the *CRF Facilitators* under the supervision of and support from the Divisional and District officials (*CRF Trainers*) who trained them.

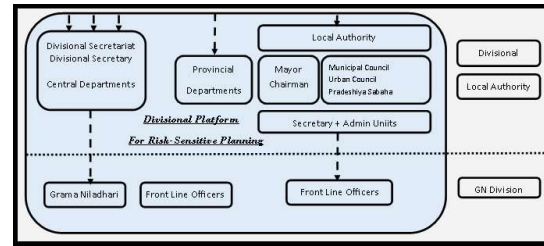


Figure 4. Divisional Platform for Risk-Sensitive Development Planning [5].

### 3.1.1. Community Resilience Framework (CRF) Trainer pool

In order to enhance the knowledge and skills on Community Resilience Framework (CRF), a number of state officials were selected to be trained as CRF Trainers. This selection was done at district-wise. However, in order to ensure that all divisions are given equal opportunity, the selection of state officials was done at Divisional Secretariat level. Key state officials include:

- Divisional Secretary
- Assistant Divisional Secretary
- District Director of Planning
- Assistant Director of Planning (DS divisions)
- Assistant Commissioner of Local Government
- Assistant Director of District Disaster Management Centre

In addition, following staff from Divisional Secretariat offices were also selected:

- Development Officer for National Disaster Relief Service
- Development Officer involved in development planning
- Social Service Officer
- Disaster Management Centre Staff members.

The same category of other staff members could also be included in the trainers' pool, based on the learning needs analysis and the requirements at the respective Divisional and District Secretariats level.



Figure 5 shows number of officers trained as CRF Trainers in four Divisional Secretariats selected for the pilot project in two districts. 62% were from government departments and 16% from local authorities.

CRF Trainers completed each step of phase I of the process shown in Figure 2. Each CRF Trainer was encouraged to complete a post-training reflective journal capturing lessons learnt and challenges, as well as to participate in the post-training review and evaluation.

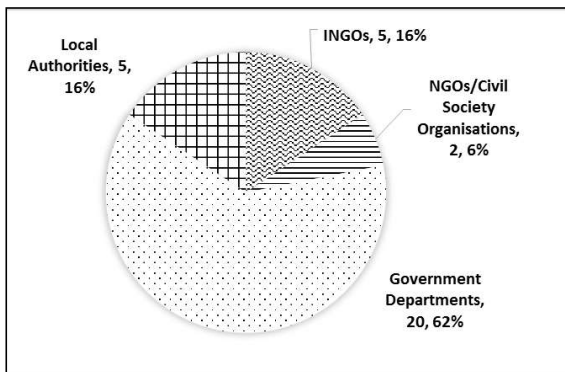


Figure 5. Number and percentage of CRF Trainers

In order to certify the CRF Trainers as a member of the trainer pool in each Divisional Secretariat for future replication and sustainability, the following tasks were completed by each CRF Trainer:

1. Three days Community Resilience Framework Training attendance as a participant.
2. Attending two days Facilitation Skills Training as a participant.
3. Facilitating at least one session in the first or second level of cascade training.
4. Evidence of involvement in the field work during and/or after the first and second cascade training programs.
5. Completing a post-training reflective journal, capturing lessons learnt and challenges.
6. Participation in the post-training review and evaluation.

### 3.1.2. Community Resilience Framework (CRF) Facilitator pool

Based on the training strategy for the implementation of Community Resilience Framework in the Northern Province of Sri Lanka by the Disaster Preparedness project of the European Commission Humanitarian Aid department (DIPECHO), a number of steps were proposed to train selected government staff members from the Divisional Secretariat Divisions [DSD] and Grama Niladari Divisions [GND]. Government staff members who were trained by the CRF Trainers were expected to undertake "Participatory Integrated Risk Assessment" and "Risk-sensitive GN Development Plans" upon the completion of two levels of Community Resilience Framework trainings.

At the end of the process, every selected GN division is expected to have developed risk-sensitive GN development plan. The outcome of this process is two-fold. On one side, it was aimed at building the capacity of the key government staff members to train their subordinates. On the other side, trained government staff members responsible for the GN division were able to facilitate the participatory risk assessment and planning with their own communities.

The government staff members who attended two-levels of training programs subsequently implemented field work. They were certified as CRF Facilitators. They included key staff members who are responsible for the respective GN divisions. After attending the training, they facilitated the participatory integrated risk assessment and risk-sensitive development planning in their respective GN division. Following this, key staff members for the cascade training programs in the districts were selected:

- Grama Niladaris of selected GN divisions
- Economic Development Officers of the selected GN divisions
- Samurdi Development Officers of the selected GN divisions



- Any other state official responsible for the respective GN division, deemed important in this process.

Participatory integrated risk assessments and preparation of risk-sensitive GN development plans were done by the communities themselves, with facilitation and collaboration of trained CRF Facilitators. The complete process comprised:

1. Two days Community Resilience Framework Training - I (Participatory Integrated Risk Assessment) attendance as a participant.
2. Facilitating Participatory Integrated Risk Assessment in their respective GN.
3. Two days Community Resilience Framework Training - II (Risk-sensitive development plan) attendance as a participant.
4. Facilitating risk-sensitive development plan preparation in their respective GN.
5. Completing the lessons learnt and recommendation form for CRF implementation at GN level.

#### 4. CRF pilot implementation outcomes

The final outcome of the Community Resilience Framework implementation process is to execute the identified mitigation and preparedness activities to reduce the risk of communities exposed to multiple hazards, thereby increasing the resilience of communities to emerging risks. The key feature in the execution of identified mitigation and preparedness activities is that it will not be a stand-alone activity or project. All mitigation and preparedness measures will be integrated within the existing development plan.

Final key output in this process is risk-sensitive GN development plan. This was achieved with two phased outputs. In the first phase after the first level of the cascade training (See Figure 2) on Participatory Integrated Risk Assessment (PIRA), Community Resilience Framework Facilitators with the help of Community Resilience Framework Trainers completed

Participatory Integrated Risk Assessment and compilation of a risk profile. In the second phase, following the second level of the cascade training on risk-sensitive development planning, every GN selected for piloting Community Resilience Framework implementation started preparing its risk-sensitive GN development plan. At the end of the project, 20 GN divisions selected for the pilot implementation of CRF in both districts have completed the compilation of the first draft of risk-sensitive GN development plans.

Further, replication of the CRF approach adapted in the pilot project, has already started in other GN divisions in Killinochchi. It is possible to develop a Divisional level risk-sensitive development plan when all GN divisions in a DS division compile a risk-sensitive GN development plans. It was also possible to formulate a common format for the risk-sensitive GN development plans through the pilot project. It assisted the other GN divisions where the process is being replicated to develop risk-sensitive development plan to follow a consistent format. This will make the divisional risk-sensitive planning, a time-effective process.

#### 5. CRF implementation – Pros and Cons

A recent study by Chandradasa [20] on multiple approaches to DRR projects implemented in Sri Lanka in the last two decades highlighted that many development agencies such as World Bank, UN, and Non-Governmental Organisations (NGOs) piloted various approaches to promote community participation in the local level development planning processes at the GN level. While some development planning approaches have taken into account risk reduction measures in their planning processes, many of them did not. Further, many Community Based Disaster Risk Management (CBDRM) approaches have been advocated for and implemented in Sri Lanka during the same time period. Among them, many of the CBDRM approaches were confined only to DRR,



viewing it through a mono-disciplinary lens, thus failing to integrate DRR in the development plans.

Lessons from this diversified approach has taken a shift from stand-alone CBDRM to integrated risk-sensitive development plans, as a more inclusive CBDRM approach. Failure to develop risk-sensitive development plans and to implement risk-sensitive actions will further aggravate existing risks and will facilitate emergence of new risks [21]. Implementing risk-sensitive actions and mainstreaming them into development projects can on the contrary increase the resilience of the communities to disaster.

Therefore, a common model for mainstreaming DRR into development in Sri Lanka has been recently advocated for by the Disaster Management Centre and other DRR stakeholders. This resulted in Community Resilience Framework for Sri Lanka as a vehicle for advocating for risk-sensitive development at national and sub-national levels. The Disaster Management Centre has also drafted Community Resilience Framework implementation guidelines for wider consultation and piloting. These guidelines have been used by the Disaster Preparedness project of the European Commission Humanitarian Aid (DIPECHO) to pilot its implementation in the selected GN divisions in Northern Sri Lanka.

### 5.1. Positive aspects and strengths

#### 1. Participatory approach throughout the process:

The totality of the process adopted for the pilot implementation of the Community Resilience Framework is said to be entirely “facilitated” by the responsible state officials and their departments. Further combination of state officials from the relevant departments of District/Divisional Development Planning and District Disaster Management Centre have formed a greater drive among the duty bearers towards designing and implementing risk-sensitive

development projects and activities in their own communities.

#### 2. Self-empowerment of state-officials through cascade training approach:

Selected District and Divisional level state-officials were trained to be Community Resilience Framework Trainers in their respective Divisional Secretariat Divisions for their subordinates who work closely with their respective GNs/community. Selection of Community Resilience Framework Facilitators who are also government officials working at the community level [GN/DS division] and their training by their directors and supervisors has created a sense of responsibility to act accordingly to the action plan drawn at the end of the cascade training programs.

#### 3. Effective format of cascade training program:

The format of Community Resilience Framework (CRF) training at the Divisional Secretariat level into 2 sectional training programs [First part as Participatory Integrated Risk Assessment and Second part as Risk-sensitive Development Plan] is found to be effective and could be the best way of delivering Community Resilience Framework training modules at the district/divisional level. Further the time gap between two trainings allowed CRF Facilitators in GN/DS divisions to undertake a real-time Participatory Integrated Risk Assessment (PIRA) and experience the learning from the first section of the training. The experience gained in preparing PIRA with the community and tangible PIRA as a product at the beginning of the second part of the training has enabled Community Resilience Framework Facilitators and Trainers to brainstorm and plan based on actual data for the final outcome of this process, which was to prepare risk-sensitive GN development plans.

### 5.2. Challenges and weaknesses

#### 1. Developing Risk-sensitive GN Development Plans is a time intensive process:





The process of developing risk-sensitive GN development plans is very time-intensive from the community side as well as for Community Resilience Framework (CRF) Facilitators. There has been varying levels of information collection, compilation and validation among different GN. CRF Facilitators should be continuously motivated and guided by CRF Trainers during their work in communities. It is important to ensure that CRF Facilitators spend good quality time with their communities, as this is the key for preparation of good quality risk-sensitive GN development plans. Hence, regular monitoring/coaching system for CRF Facilitators should be put in place by the assigned CRF Trainers.

## 2. Participation of local government in the process:

Participation of local government staff members (Pradesya Sabah/Urban Council/Municipal Council and Provincial Councils, where appropriate) should be ensured in the complete process of training, facilitation, participatory integrated risk assessment and finally developing the risk-sensitive development plan. During the post-project discussion with Disaster Management Centre, engagement of local government staff members in this process was emphasized. It should be a high priority and new experience of engagement of local government in other districts should bring some new insights in the implementation of Community Resilience Framework elsewhere.

## **6. Lessons and way forward**

The following recommendations have been drawn from the lessons learnt of the pilot project of Community Resilience Framework implementation in the Northern district of Sri Lanka.

### 1. Capitalise on the positive lessons:

Disaster Risk Reduction (DRR) and Development stakeholders need to capitalise the positive lessons and to improve the process and approach for the implementation of Community Resilience

Framework (CRF) at District/Division/GN levels. Cascade approach of CRF trainings and subsequent implementation of CRF at GN level has shown a great potential for sustainable process in building resilient communities. Hence,

- the approach needs to be improved in terms of identifying and training suitable state officials/departments with an appropriate balance in the CRF Facilitator team.
- the process could be improved by introducing a strategy to boost the technical knowledge on DRR, risk-informed planning and monitoring & evaluation of risk-sensitive planning.

### 2. Developing monitoring tools:

Monitoring tools are necessary to ensure sustainability of the process after exit of implementing organisations. As one of the key lessons of implementing Community Resilience Framework (CRF) from district to GN level, state officials who lead, train, and facilitate the complete process of elaborating risk-sensitive development plans lack clear guidelines/tools for monitoring the process until the final product is generated. Hence it was done in a very ad-hoc manner which presents a great risk for completing the process comprehensively, particularly after the exit of external monitoring initiatives such as the Disaster Preparedness project of the European Commission Humanitarian Aid department (DIPECHO). Therefore, monitoring tools/formats at each decision gate of the project cycle should be developed and made available at divisional level to ensure the sustainability of the process.

### 3. Forming a "Community of Practice" (CoP):

Community of Practice at district level under District Disaster Management Centre and Divisional Secretariat offices could be formed comprising a resource pool of Community Resilience Framework (CRF) Trainers and Facilitators. In order to further ensure the sustainability of the process, and building the capacity of the district/divisional level government staff



members, it is recommended to form a “CoP” in each district.

- Community of Practice under the District Disaster Management Centre will enable CRF Trainers and Facilitators to meet periodically, update their knowledge/skills and discuss current challenges/future directions at policy and practice level.
- Community of Practice is generally being an informal set up. For the purpose of initiation, guidelines and procedures for establishing a divisional/district level “Forum” could be followed.
- Dedication and motivation of the initiator is the key for successful implementation of Community of Practice.

#### 4. Future uptake and replication of the strategy:

Community Resilience Framework (CRF) implementation process developed during the pilot Disaster Preparedness project of the European Commission Humanitarian Aid department (DIPECHO) can be adapted for future replication. Further upscaling at the national level based on its positive lessons and on the CRF training strategy is being discussed by the Disaster Management Centre and all Disaster Risk Reduction (DRR) stakeholders.

- The process adapted during piloting and the lessons learnt were shared with the Disaster Management Centre. Wider consultation and uptake should be done with other DRR stakeholders.
- The Disaster Management Centre with the support of the DRR Technical Working Group could develop an advocacy strategy for its update at the national/district/divisional levels throughout the country.

#### **7. Concluding remarks**

Enabling safe living environment while preventing and reducing vulnerability are the key areas of the Sendai Framework [2015-2030] for building resilient

communities. Disaster Risk Reduction stakeholders in Sri Lanka are designing an approach for building disaster resilient communities with a vision of “Towards a Safer Sri Lanka” by bridging the gap between DRR and long term development objectives.

DIPECHO 8 project implemented the Community Resilience Framework (CRF) in Killinochchi and Mullaitivu districts. Cascade capacity building strategy has been used to train key state officials at district/divisional levels to implement CRF at the community/GN level. State officials have been selected from the Disaster Management & Development Departments who are the key drivers for elaborating risk-sensitive development plans. As an outcome of the capacity building programs, Participatory Integrated Risk Assessments and Risk-sensitive GN Development Plans in the selected GN divisions have been produced.

In this paper, we have outlined the approach and process adapted in the pilot project implementation of the Community Resilience Framework as well as the lessons learnt.

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#### **References**

- [1] 1. Aitsi-Selmi, A., et al., *Reflections on a Science and Technology Agenda for 21st Century Disaster Risk Reduction*. International Journal of Disaster Risk Science, 2016. 7(1): p. 1-29.



- [2] 2. Cox, R.S. and M. Hamlen, *Community Disaster Resilience and the Rural Resilience Index*. American Behavioral Scientist, 2015. **59**(2): p. 220-237.
- [3] 3. Djalante, R. and F. Thomalla, *Community Resilience to Natural Hazards and Climate Change: A Review of Definitions and Operational Frameworks*. Asian Journal of Environment and Disaster Management, 2011. **3**(3).
- [4] 4. Birnbaum, M.L., et al., *Research and Evaluations of the Health Aspects of Disasters, Part IX: Risk-Reduction Framework*. Prehospital and disaster medicine, 2016. **31**(3): p. 309-325.
- [5] 5. Burton, C.G., *A Validation of Metrics for Community Resilience to Natural Hazards and Disasters Using the Recovery from Hurricane Katrina as a Case Study*. Annals of the Association of American Geographers, 2015. **105**(1): p. 67-86.
- [6] 6. Alshehri, S.A., Y. Rezgui, and H. Li, *Disaster community resilience assessment method: a consensus-based Delphi and AHP approach*. Natural Hazards, 2015. **78**(1): p. 395-416.
- [7] 7. Ostadtaghizadeh, A., et al., *Community disaster resilience: a systematic review on assessment models and tools*. PLoS currents, 2015. **7**.
- [8] 8. Yoon, D.K., J.E. Kang, and S.D. Brody, *A measurement of community disaster resilience in Korea*. Journal of Environmental Planning and Management, 2016. **59**(3): p. 436-460.
- [9] 9. Aldunce, P., et al., *Resilience for disaster risk management in a changing climate: Practitioners' frames and practices*. Global Environmental Change, 2015. **30**: p. 1-11.
- [10] 10. UN, *Asia-pacific input document for the post-2015, framework for disaster risk reduction (HFA2) final draft*. 2014, United Nation.
- [11] 11. UNISDR, *Disaster risk reduction and resilience in the 2030 agenda for sustainable development*, in *A reflection paper*, United Nation Office for Disaster Risk Reduction, 2015.
- [12] 12. UNISDR, *Proposed Updated Terminology on Disaster Risk Reduction: A Technical Review*. 2015, United Nations International Strategy for Disaster Risk Reduction.
- [13] 13. Schipper, L. and M. Pelling, *Disaster risk, climate change and international development: scope for, and challenges to, integration*. Disasters, 2006. **30**(1): p. 19-38.
- [14] 14. Zubair, L., et al., *Fine Scale Natural Hazard Risk and Vulnerability Identification Informed by Climate in Sri Lanka*. Project Report: International Research Institute for Climate and Society. New York, 2005.
- [15] 15. Gunasekera, R.C., *Framework for a Methodology to Integrate Vulnerability to Develop Natural Hazard Risk Profiles for Sri Lanka*. 2009, Preventionweb. [http://www.preventionweb.net/files/15417\\_frameworkfordevleome ntofriskprofil e.doc](http://www.preventionweb.net/files/15417_frameworkfordevleome ntofriskprofil e.doc) [15 March 2012].
- [16] 16. DMC, *Community Resilience Framework - Sri Lanka*, Ministry of Disaster Management. Disaster Management Centre, 2015: Colombo.
- [17] 17. DMC, *Guidelines on implementing community resilience framework in Sri Lanka*, Sri Lanka Comprehensive Disaster Management Programme (SLCDMP), Ministry of Disaster Management, Disaster Management Center, 2015.
- [18] 18. ESCAP, *Risk-sensitive development in Asia and the Pacific*, Economic and Social Commission for Asia and the Pacific Committee on Disaster Risk Reduction Fourth session, United Nations: Bangkok, 27-29 October 2015.
- [19] 19. Mochizuki, J., et al., *Revisiting the 'disaster and development' debate—Toward a broader understanding of macroeconomic risk and resilience*. Climate Risk Management, 2014. **3**: p. 39-54.



**ICSBE2016-220**

- [20] 20. Chandradasa, U.W.L., Senevirathne, A., Liyanarachchi, S.H., *A common model for mainstreaming inclusive community based disaster risk management into development in Sri Lanka*. 2014, DIPECHO 7.
- [21] 21. ADPC, 12th meeting of the Regional Consultative Committee (RCC) on Disaster Management, *Risk-sensitive development in Asia*, 2015.

DIPECHO is the financing instrument for Disaster Preparedness projects of the Humanitarian Aid Department of European Commission  
While GN is the lowest state administrative unit in Sri Lanka, number of GNs form a Divisional Secretariate (DS), and number of DSs form an administrative district.  
There are 25 such administrative districts in Sri Lanka