Bridging the Missing Link and covering the Last Mile in Disaster Management through Building Resilient Communities
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Content of presentation

1. **Understanding and conceptualising resilience in the context of communities vulnerable to disaster risk.**

2. **The need for building resilient community, a key pillar to promote ' Safety Culture' and managing the ' Last Mile' in disaster management.**

3. **Nepal's recent initiatives in disaster risk management and its legacy of building resilient communities.**

4. **Lessons learned from best practices in the context and suggested key areas of action in Nepal.**

Understanding Resilience

Resilience – **Ability to prepare and plan to absorb, recover from and more necessarily adapt to and cope with diverse events.**
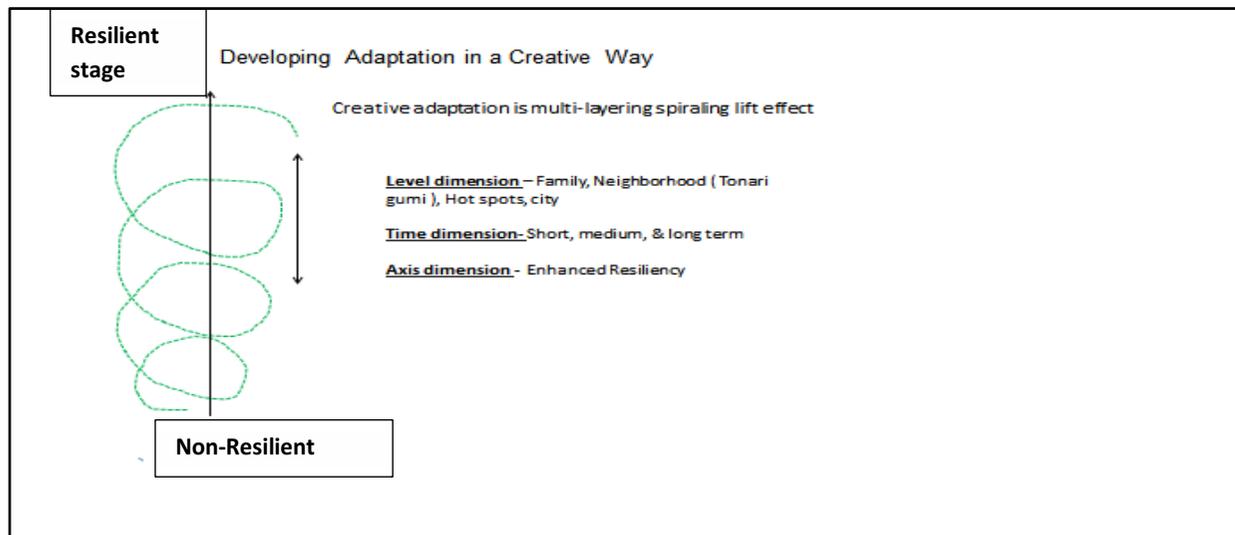(**McAllister. T. 2015**)

Resilience is not a one state mechanism or institutional arrangement but is a continuous process reviewing experience, adaptation towards coping for safety and better livelihood and promoting new awareness of higher levels of resilience .

In other words

Moving from just scientific analysis of visible disaster implications to the world of reality of life of the common victims their suffering, trauma and expectations and create the feeling of doing something better to mitigate the impact of the next disaster.

Conceptualising the Understanding

Resilient stage

Developing Adaptation in a Creative Way

Creative adaptation is multi-layering spiraling lift effect

Level dimension – Family, Neighborhood (Tonari gumi), Hot spots, city

Time dimension- Short, medium, & long term

Axis dimension - Enhanced Resiliency

Non-Resilient

Conceptualizing process, Building 'people centric' resilient community

ADAPTAION PROCESS INVOLVES LEARNING AND COPING

- People want to learn because they want to change.
- Individuals and systems change because they learn.
- Adaptation, therefore, is a process of transformational learning, changing and coping.

ADAPTATION

Even a small change can have big effect on coping and learning.

LEARNING → CHANGE → COPING

Adaptation management is crucial in building resilient communities

Building 'people centric' resilient community and the Role of the Scientific community

Top Down Techno-legal regime → **Scientific Community** ← **People-centric Regime**

Planning, Engineering/ Building Code

Law Regulation & Rules

Development control, Land use zoning, byelaws

Promotion of local Initiatives to reduce risk

Plan making Toolkit

Drills & Field practice to train local/ community

Develop trust on collective action, local leaders & favourable Govt. systems

Strong awareness building & risk communication

Training on use of adaptable scientific methods & technology

Ability to mobilise resources & plan making & implementation

Motivation to Act, Prepare & Implement Community Resilient Plan

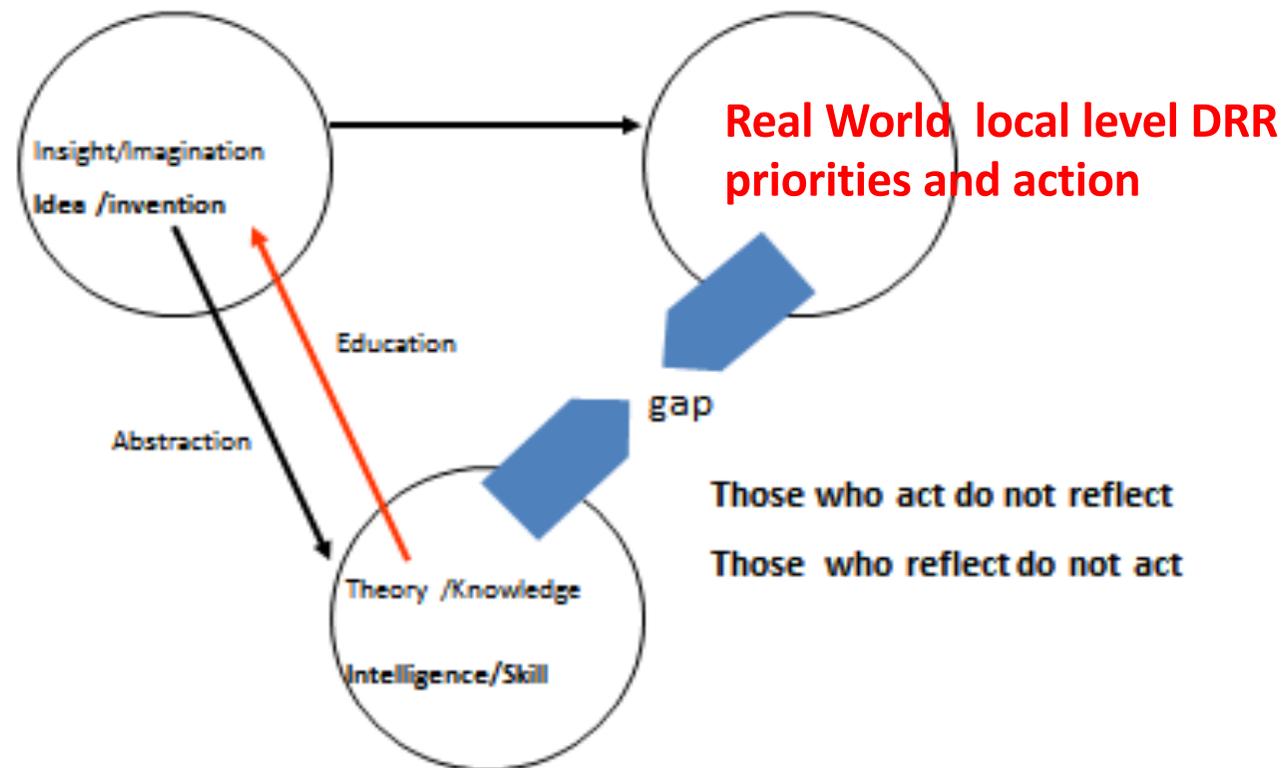**Capability development & Empowerment**

Collective ownership of needs and action

Sustained leadership for collective action & solving conflicting interests.

Self-regulation & organization

Resource mobilization & sharing responsibilities

IMPLEMENTATION SCIENCE AND THE REAL WORLD DILEMA

Insight/Imagination

Idea /invention

Real World local level DRR priorities and action

Education

Abstraction

gap

Those who act do not reflect

Those who reflect do not act

Theory /Knowledge

Intelligence/Skill

Building Resilient Communties & Disaster Risk Management

Miss Match between Real World reality and DRR Efforts

Near Vacuum 'Last Mile' in Disaster risk Management.

The gap must be bridged for building resilient communities.

Dominance of Top-Down linear bureaucratic process supported by rigid institutional and legal framework has neglected building resilience at grass root level.

Highly structural and fixed legal approach of Top Down process is found often unfavourable to grass root level participation and building resilient communities.

As a result

Strong Government Top Down process in DRR fail to deliver at the community level. Disaster risk vulnerability directly retard Building resilient communities.

Lack of adequate scientific, financial and organizational support, local areas and communities commonly suffer most even in small scale disasters. Long time personal suffering, personal loss and deep trauma keep communities away from resilience.

Hence what is the key to build Resilient communities?

A change in the 'mind set' that Top Down government DRR process can only build resilience at all levels.
Strong promotion of the Bottom Up community based process and synergy coordination between the Top Down & Bottom Up efforts

Role of Technology based Scientific Community in Building Resilience

For long resilience building especially related to disaster risk management has been exclusively dominated by **'hardware'** and **'software'** technology.

In order to be more effective, it is essential technology must focus also on the **'Human ware'** component.

Emerging New areas of Action

Human ware focus through Process Technology –
How to make things happen in real world, promote peoples' participation and acceptance and help them to be self-regulated , fix priorities need and act collectively to be resileint

Globally Process technology is a fast developing discipline within a framework of Human Security Engineering. (**Kyoto University , Japan is a front line institution in developing the discipline)**

The need for building resilient communities in the context of global scenario on disaster

Globally weather related disasters have become more frequent than before .A sustained and significant rise in the incidence of floods and storms is seen along with a rising trend in drought, heat wave and extreme cold.

More than 606,000 dead and 4.1 billion either injured or become homeless due to weather related disasters, since COP 1 (1995) 75% in India and China alone(UNISDR, Nov. 2015). In 2015 alone Asia –Pacific region had 160 catastrophic disasters.

Vulnerable communities globally are invariably adversely affected.

Global & National Initiatives for DRR

Sendai Framework for Disaster Reduction (2015-30) is followed by **COP 21** in Paris focusing on climate change impact and disaster management.

In one week or so (November 4th) **Paris agreement** will be International Law.

Most countries now have **National Disaster Management Authority and national Plans of Action** disaggregated to local levels through a vertical Top Down process.

Commendable initiatives taken by Nepal specially after the April 2015 earthquake disaster

1. Post Disaster Needs Assessment Agency (PDNA) established.

2. National Reconstruction Authority (NRA) and National Risk Reduction Consortium (NRRC) for coordinated governance & international funding.

3. Central Project Implementation Unit (CLPIU) established in MoUD.

4. National Recovery and reconstruction Policy (NRRP) enacted 2015.

Commendable initiatives taken by Nepal specially after the April 2015 earthquake disaster

5. Settlement Development, Urban Planning & Building Regulations, 2015 -2072

6. UN Habitat Nepal- Policy for Resilient Urbanization, 2015-16.

7. Integrated National Building Code (NBC) & Building Bye Laws, 2015.

8. National urban Development Strategy 2014

YET

Building Resilient Communities as a Bottom Up process within a framework of Integrated Disaster Governance remains as a systemic challenge for most governments including Nepal.

Useful lessons can be learned from global best practices in building resilient communities which are relevant to Nepal.

Useful lessons learnt from some best practices in building community resilience, Japan

Japan – **Strong movement in building Resilient communities**

Some selected success stories- 'Community that protect and autonomously manage themselves and create Safety Culture'

1. **Suhachi community development , Kyoto**
2. **' Machi-kumi' , Kusakabe, Kobe city**
3. Okayama, Kyoyoma- Life & Culture project
4. **Chizu-ho, Totorri, 'Zero to One ' project**
5. Ogumi, Kumamoto city- strong local leadership
6. Ikazaki ki, Uchiko, Matsuyama – strong local champion
7. **'Machizukuri' - Community local development action**

My direct involvement in RED.

Useful Lessons learnt from some best practices in building community resilience in India

India – 2005-15

Some selected success stories –

1. **Kyoto University Human Security project in 'Hot spots', Mumbai, 2009-13**
2. UNISDR, CDRF Pilot project- Disaster Resilience Fund
3. IIT, Rorkee- Mason Training for safe construction.
4. **School safety Initiative, SEEDS**
5. Tamil Nadu Disaster management initiatives in 13 districts.
6. Dhule, Maharashtra- Spirit of Volunteerism.

Huge challenges in recovery and reconstruction as aftermath of the April 2015 disaster, Nepal

Besides huge loss of life

- **490,000 houses completely destroyed + 65,000 became temporarily un-habitable**

  Almost all damaged buildings were non-resilient structures.

- **4.9 million families' livelihood adversely affected, hundreds of orphan children, elderly, disabled and women worst sufferers.**

Nepal 2015 earthquake disaster

Resilient community is not only building resilient built environment, but to ensure access to water and food, sustained livelihood, take care of the elderly, disabled, women and children and to reduce trauma and social despondency, as well in wake of disaster.

Many success stories of community and NGO efforts after 2015 disaster in Building Resilient Nepal

Selected cases –

1. **Resilient building construction adhering to latest NBC.**
   Hillary Himalayan Trust + 3 NGOs in most remote areas.
   Solukhumbu district , Thulo Gumela Village

   a. **Use of simple indigenous resilient construction techniques.**
   b. **Use of local material and training for brick making.**
   c. **New skills and creation of jobs.**
   d. **Disaster preparedness training for school children & teachers.**
   e. **Support for traumatised families and children.**

Many success stories of community and NGO efforts after 2015 disaster in building Resilient Nepal

2. Building Emergency resilient shelter-

CSEB – Building Back better in most vulnerable remote areas, Nakchung and Luka villages.

3. Taking care of Children and the most needy.

ROKPA International , ROKPA Nepal

a. Help street and orphan children.
b. Building Children Home
c. Help people on the margin of society in education, health care and building self-reliance culture.

Many success stories of community and NGO efforts after 2015 disaster, in building Resilient Nepal

2. **Building resilient structures and disaster risk management**

   NSET- Country wide impact

   a. Building Earthquake safe communities.
   b. Promotion of use of resilient indigenous construction technologies.
   c. School safety Initiatives.
   d. Kathmandu valley Earthquake Risk Management Action Plan, 2000

Opportunities available in Nepal for Systemic approach to building resilient communities

1. **Century old rich legacy and heritage of community cooperation and collective action to better life conditions.**

2. Existing strong 'GUTHI' legacy which needs review and revival.

3. **Religious temper and innumerable festivals for community unity and collective action.**

4. Rich indigenous knowledge available on resilient construction & use of local material.

5. **NOW, more sensitive government, national policies and action for resilient built environment and sustainable development.**

There is lack of Systemic approach in Building resilient communities in contemporary Nepal

Systemic priorities actions needed-

1. **A clear and decisive National Policy to promote resilient communities within the national framework for settlement development and integrated disaster risk management.**

2. **Mandatory resilient building for new construction and quick retrofitting of the existing vulnerable buildings through coordinated government technical and financial assistance .**

Systemic approach in Building resilient communities in contemporary Nepal

Priority Actions

3. **Mandatory resilient construction of vital buildings such as schools, hospitals, water supply and power services and shelter building for refuge during disaster.**
4. **Mandatory provision by local government of basic services namely potable water and sanitation to all highly vulnerable communities.**

5. **Enhancemnt of capability of community to undertake local area vulnerability assessment, risk mapping and risk mitigation plans either individually or collectively.**
6. **Promote NGOs and Scientific Community involvement in grass root initiatives for building resilient communities.**

Key lessons learnt relevant to building resilient communities in Nepal

1. **Vulnerable communities do have significant latent potential to protect themselves and develop self-regulative measures and safety culture and mitigate risk**.

2. **However, strong and sustainable leadership is the need to 'UNLOCK' the latent potential. To achieve this scientific community / NGOs need to act as trigger and change agent.**

3. **With help of experts Communities can effectively enhance awareness, ability to analyse risk and resolve conflicting interests to prepare safety Plan using fairly advanced technologies and mobilize their own resources.**

Key lessons learnt relevant for building resilient communities in Nepal

4. **Improved and safe building construction methods and techniques are easily adapted and involvement of women can also be significant.**

5. **Communities can create sustainable institutional system and share responsibilities to protect the disadvantaged, elderly, women and children in pre and post disaster conditions.**

6. **Communities can easily develop sustainable safety culture tempo using local festivals and cultural and religious ethos.**

Building Resilient Communities means

Touching Lives through Common Effort and Changing Lives through Participatory Action for Safety, Awareness, Empowered ability, Self-regulation promoting sustainbale development.

Thank you