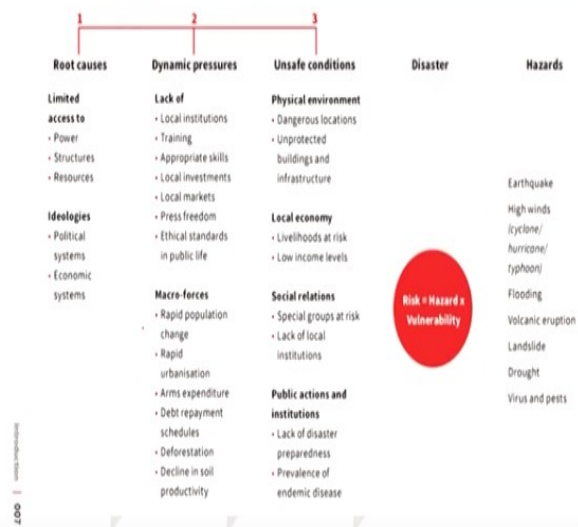


Figure 1.2 The progression of vulnerability



And they talk about they have come with the understanding of this framework is called a pressure and release model. So we have the root causes as I discussed with you, that the limited access to the power, structures, resources. Ideologies where the political ideology, the systems, political systems and economic systems and how these root causes can actually create certain add-on to the dynamic pressures.

For example, when we have the institutional lack of institutional training, appropriate skills, local investments, even how the markets will also create some kind of everyday issues. And the press freedom you know like if you take the example of North Korea you know how what is happening in North Korea may not be known to the whole world you know how to communicate with this, the press freedom, ethical standards in public life and these are more of the everyday processes.

The other aspects are the macro-forces, the demographic change you know the rapid population change, rapid urbanisations and the amputation expenditure, the debt repayment because we have been taking lot of loans from world bank and other things. So how we are able to, how this particular debt is increasing, and it is adding to the burden of the citizen's lives and their livelihoods.

Deforestation because of the industrial and expansions, physical expansion of cities, and how the deforestation is in turn affecting the climate change and which is again relating to the DRR. Decline in soil productivity you know, in many at cases we have this how the agriculture have been converted into aquaculture, and again aquaculture has been at some point they come into losses, and again they want to come into agriculture you know how they face these difficulties and how it will reduce the soil productivity as well.

However, not only that it will also go with the land use like imagine you would talk about a industrial land use and how it can pollute the surrounding soil nature, that is also an important, and it will affect certain species of trees and flora and fauna, this how the result into the unsafe conditions.

Where we talk about the dangerous locations people live in the physical dangerous locations, unprotected buildings and infrastructure, maybe many of in poorer countries, they do not have even money to safeguard those existing structures. People tend to live in the places where they are habituated to.

Livelihoods at risk and the low-income levels like today we are looking case of Venezuela, how the situation, the financial situations have been you know disrupting the whole community in a global level, and it is also relating how even on one side when the economy falls down how it have impact on the whole society as a whole.

Social relationships, special groups at risk maybe a target groups, lack of local institutions. And when we talk about the public actions and institutions, this is where the preparedness because majority of the political institutions they do not rely on, they do not fund for the preparedness program because that is not much visible because they are not sure whether disaster is going to happen or not.

But the most visible programs are mostly focused on after the disaster. Yes, we have constructed this many houses, we have given this many boats, we have given this many livelihoods, but

before what are the training programs, what are the early warning systems you know how we can actually dedicate our budget in the preparedness programs.

Prevalence of endemic diseases; so this is all sets up the setting for getting the society prone to an hazard, and then this builds a pressure to the existing you know the natural hazards and that is where a push and pull process works you know that is one side the hazards and one side this the continuous dynamic pressures, the root causes on the unsafe condition, and how they actually bring the pressurized situation that is where Subhajyoti Samaddar might have explained, $\text{risk} = \text{H} \times \text{V}$, that is how when hazard has been added with the vulnerability that is where the risk component is being visible.

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Hyogo Framework for Action 2005–2015

1. Ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

So coming to the frameworks, when we talk about the Hyogo Framework for Action from 2005 to 2015 and these are the 5 principles which they have established. One is ensure that disaster risk reduction DRR is a national and local priority with a strong institutional basis for implementation, so it is not just only a national priority it has to go with a national and as well as a local priority.

Identify, assess and monitor disasters and enhance early warning systems.

Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
So how we can build this culture of safety through the preparedness programs.

Reduce the underlying factors; what are the strategies that we can implement to reduce these underlying root causes?

Strengthen the disaster preparedness for effective response at all levels you know that is not only at one unit or one local level, but it has to work out a different scales, different levels.

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And follow up on the Hyogo Framework for Action, Sendai Framework for disaster risk reduction sets up like this 2015 to 2030, and I will try to present into few slides on how this whole scope and purpose to the guiding principles. So this will apply to the risk of small scale and large scale, frequent and infrequent, sudden and slow-onset disaster caused by natural and man-made hazards as well as related environmental, technological and biological hazards and risks.

It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors. Here we have moved our dimension not just only focusing on a particular type of a disaster, it is not just only earthquake, it is not only by a drought, it is not by only tsunami. So now we have to look at the multi-hazard approach as well. Like for instance in

Uttarakhand 2013 flood, a cloudburst have resulted in the floods, and floods have resulted in the landslides. So there has been a very multiple hazard-prone areas okay.

So that is how we are not just dealing only with one set of disaster, but it has to go with the multi-hazard management of disaster risk in the development at all levels both at site level, the specific site level and also the regional level and also various sectors. What is the outcome of this? the substantial reduction of disaster risk and losses in lives, and livelihoods and health, and economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

So they need to improve these strategies how we can reduce these losses. And the goal, we talk about the prevent new and reduce existing disaster risk through the implementation of integrated and inclusive these are the two important words and integrated DRR and inclusive DRR.

It talks about the economic, structural, legal, social, health, cultural, educational, environment, technological, political and institutional measures that prevent and reduce hazard, exposure and vulnerability to disaster so that it can increase the preparedness for response and recovery thus strengthening the resilience.

So the targets which they have set up is about they need to reduce the global disaster mortality by 2030. Aiming to lower average per 1 lakh global mortality between 2020 and 2030 compared to 5 and 15 so they are trying to set up some targets.

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Targets						
Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020–2030 compared to 2005–2015	Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020–2030 compared to 2005–2015	Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030	Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030	Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020	Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030	Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030

Priorities for Action			
There is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas.			
Priority 1 Understanding disaster risk Disaster risk management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment	Priority 2 Strengthening disaster risk governance to manage disaster risk Disaster risk governance at the national, regional and global levels is vital to the management of disaster risk reduction in all sectors and ensuring the coherence of national	Priority 3 Investing in disaster risk reduction for resilience Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social,	Priority 4 Enhancing disaster preparedness for effective response, and to 'Build Back Better' in recovery, rehabilitation and reconstruction Experience indicates that disaster preparedness needs to be strengthened for more effective response and ensure capacities are in place for effective recovery. Disasters have also

And again we talk about this reduction of this affected people, reduce direct disaster economic loss in terms of GDPs and also disaster damage to critical infrastructure and disruption of basic services. And as well as substantially increase the number of countries with national and local disaster and you know how we can actually enhance the international cooperation through adequate sustainable support to complement the national action. So how the national action plans can actually relate with the international cooperation as well.

And the increase and availability of access to multi-hazard early warning systems and disaster risk information by 2030, so they have set up these targets. So what are the priorities of action? Number one, understanding the disasters risk in the first stage, number 2, strengthening the disaster risk governance and the manage disaster risk.

So how we can look at the management and the governance perspective. Then investing in disaster risk reduction for resilience so this is where both the structural and non-structural measures are essential to enhance the social and economic aspects and enhance disaster preparedness for effective response and to build back better into both recovery, rehabilitation and reconstruction.

So that is where these are the kind of set of priorities which they have established.

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