

MISMATCHES REGARDING NORMS

FIRST ERA: 1980's -2000's -----Environmental problem-----Green house Gas emission, scientific community involved...

THE SECON ERA. From 2000's, -----the unavoidable effects of climate change were acknowledged -----so that the need for adaptation emerged as an international agenda.

Social scientists and development workers have increased their cooperation in the second era.

THIRD ERA: As the causes and effects of climate change are produced and felt by different regions of the world, -----a question of global justice in the near future (third era). All the above mentioned actors will be accompanied by legal and ethical experts in the third era.

Development of legislative, cultural or behavioral norms which determine the functioning of human society and how the interactions between nature and society were created.

Many of such legislative norms are often violated in the context of informal and coastal settlements.

Where we have also the knowledge mismatches in the norms when we talk about the climate change, it was when it was discussed in the 80s which was the first era from 80s to 2002 it was mostly focused on the greenhouse gas emissions. Where the most of the scientific community are involved, it is an environmental problem.

Whereas in the second era from 2000s this has been seen by the International agenda, and also the social dimension come into the picture where the social scientists and the development workers have increased their cooperation in the second era.

In the third era it also looks from the you know this has been felt by other countries and other regions. So this is become a question of global justice in the near future that is where the legal dimension came in third era which is, and this is where we need to talk about develop of certain legislative cultural and behavioral norms which determine the functioning of human society and how the interactions between nature and society were created. So many of these legislative norms were often violated in the context of informal and coastal settlements. For example, the coastal regulation zone which was formed in 1991 and revised 19 times until the tsunami have struck. But then they were barely implemented.

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KNOWLEDGE MISMATCHES

There are no effective linkages between different types and scales of knowledge, data sets and work applied by climate and risk scientists and practitioners which hinders straight forward and transparent communication, collaboration and joint programming between various level of actors, institutions and agencies

How to use such a macro level knowledge data sets to inform the micro level data sets and who should take this into consideration in what way, a clear road map is needed for better integration of CCA and DRR in future strategies

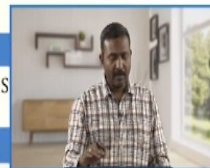


Also the knowledge mismatches when we talk about different scales, different data sets, different climate and risk scientist's practitioners which they do not bring the transparent communication and collaboration and joint programming between various levels of actor's, institutions, and agencies. So there is all this actually leads towards an important question of how to use this macro-level knowledge data sets to inform the micro-level data sets.

And who should take this into consideration, in what way a clear roadmap is needed for a better integration of CCA and DRR.

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Differences and Challenges for Integrating DRR and CCA	
Disaster Risk Reduction	Climate Change Adaptation
Adaptation Strategy - Scale Mismatches	
▪ Aimed at actual disaster event	▪ Aimed at long term implications
Spatial Scale	
▪ Respective regions and localities prone to occur	▪ Global scale / Continental / inter - continental scale
Temporal and Functional Challenges	
▪ Short or medium term / event related strategies	▪ Long term adaptation strategy
▪ Differences in Functions of agencies/ players involved - scope of work, roles, funding etc.	
Mismatches regarding Norms	
▪ Ex: Legislative Norms, Urban Planning Norms, Coastal Regulations, S	
Knowledge Mismatches	
▪ Difference in types and scales of knowledge, data sets and work applied	



So to summarise whole aspect we see that differences and challenges we have disaster risk reduction and the climate change adaptation. This because it is aimed at the adaptation strategy which tells of scale mismatches because it is aimed at disaster event, it is a long term implications. A draught is not just only a matter of one month, it may come from years of years or together.

Whereas the spatial scales respective to regions and localities prone to occur, well it is a global scale sometimes is a continental and intercontinental impacts. Temporal and functional challenges; because this is more to do with the short and medium-term and mostly to the event related, and this has more of a prevention and also the long term adaptation strategies. Here the differences in function of agencies plays players involved and what is the scope of work roles and funding, because at the end of the day, funding is the most important part.

Mismatches regarding the norms: when we have the legislative norms, urban planning norms, coastal regulations how they enter do not relate to each other that is one aspect. Knowledge mismatches when we say the different types and scales of knowledge data sets and work applied.

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Lei and Wang [14] have recognized the need of more explicit frameworks to transfer the theoretical arguments into some operational instruments

“6W” framework

Why adaptation is needed for natural disaster risk?

There is a need to develop vulnerability assessment and risk analysis to identify the most vulnerable groups. They might include farmers, local communities, local and central governments or other stake holders. It is important to determine which country, region or community should be taken as a priority for implementing of adaptation actions to disaster risk

What is adaptation to disaster risk?

Here adaptation refers to three main concepts. Adaptation can be a process, ability or an action. It can be quantified as adaptability (or adaptive capacity) that could be improved through social learning. Adaptive capacity of human system represents the potential of the system to reduce its social vulnerability, to moderate potential damages and to benefit from opportunities through a series of self-adjustments

Adapt to What?

Adapt to hazards, both Climate induced and Non-Climatic induced Disasters:
Learning from both past and present disasters could facilitate a better preparation for future potential disaster risks

So for this Lei and Wang they actually come up with more explicit frameworks they call about “6w framework”. So they talk about why adaptation is needed for natural disaster risk, what is adaptation to disaster risk, and adapt to what, who has to adapt?.

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Who should adapt?

"6W" framework

There is a need to develop vulnerability assessment and risk analysis to identify the most vulnerable groups. They might include farmers, local communities, local and central governments or other stakeholders. It is important to determine which country, region or community should be taken as a priority for implementing of adaptation actions to disaster risk.

How to adapt?

This refers to the means and approaches to adaptation, which can be broadly classified as strategic and tactical options. Strategic levels can be structural and nonstructural, short term (for e.g. temporary evacuation) or long term (e.g. land-use planning).

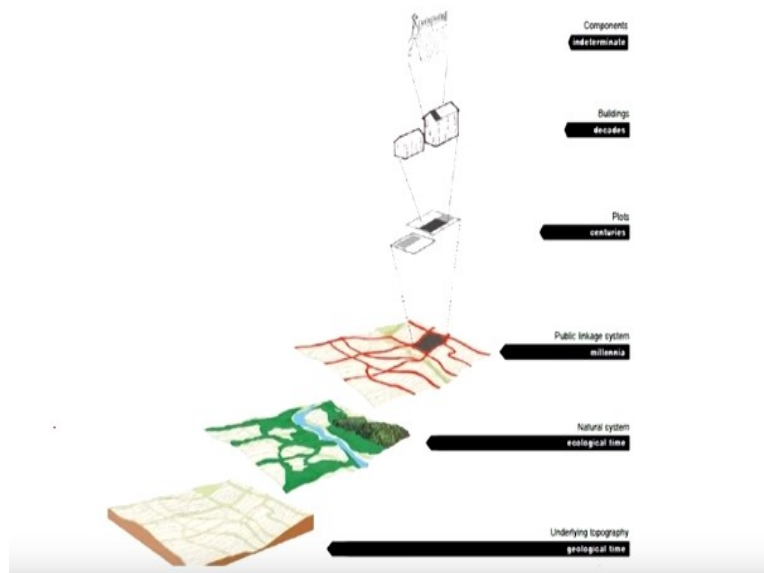
At tactical level: technological (e.g. drip irrigation), ecological (e.g. introducing anti-drought crops), educational (e.g. training and information sharing), political (e.g. formulating legislative actions).

What are the possible principles or criteria to assess the effectiveness of adaptation?

Indicators that determine the quantitative nature could be established to assess the effectiveness of adaptation. For instance: food grain security in agricultural sector, quality of ecological services in mitigating environment hazards, poverty reduction effects, disaster economic loss and more broadly the sustainability index to address DRR within socio economic development. Certain qualitative indicators such as need, feasibility and cost benefit analysis could be used in assessing the adaptation effects on disaster risk and these assessments should be a dynamic process.

Who should adopt? How to adapt? What are the possible principles or criteria to assist effectiveness of adaptation?.

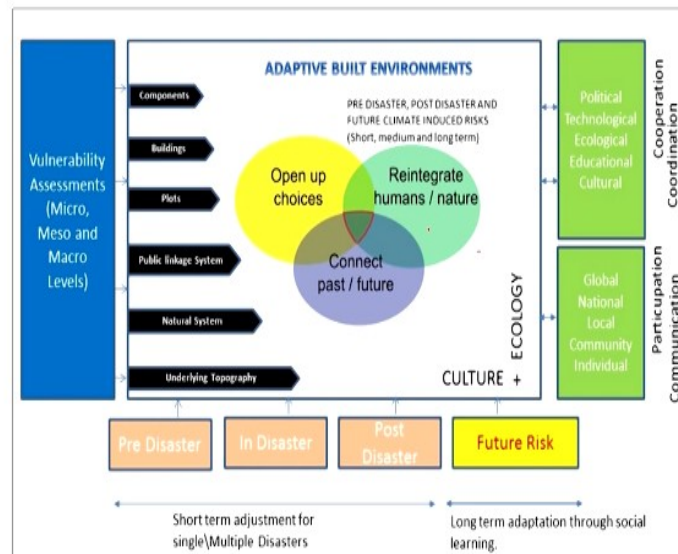
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So there is a brief summary of this whole 6w framework has been listed out and now one of the important understanding from a built environment perspective what we can see is there is a scale mismatches. The spatial levels data so it is always if you look at the built environment we as a planners or architects we only look at the plots buildings and elements. We completely ignore the underlying topography and the natural systems ecosystems, and the public linkage systems so they all are interrelated to each other so one has to see the different sets of data how they can

come together, and how can macro-level information can be informed the micro-level information.

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So it is where in my current ongoing study I developed this framework where we have the spatial dimension and which has also the vulnerability in impacting on these, and there is also the adaptation process both pre-disaster in disaster post-disaster and the future risk which has a short-term and medium-term of single and multiple disasters. And this has a long-term adaptation through social learning. And here we can see that how the nature and culture can come together.

And this also talks about how the adaptive built environments open up choices, connect past and future, and how it can reintegrate the humans in nature for which cooperation coordination between various agencies political, technological, ecological, educational and as well as the participation and communication across various segments the global actors in the National. So all these things has to come this is a very holistic framework which we worked on.

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Towards an Integrated Multi-Dimensional Framework for Built Environment Professions to Integrate CCA and DRR

The proposed framework mainly inquires the following three aspects for integrating nature, culture and space.

1. How different rebuilding practices have offered choices to a variety of uses and users.
2. How the natural environment with its eco systems and services has been integrated in the place making processes in different disaster recovery processes.
3. How different rebuilding processes have addressed the challenges to connect both past and future needs and aspirations of the beneficiaries.

And when we talk about an integrated multi-dimensional framework, so it investigates on three aspects; one is how different building practices have offered choices to variety of users and users, how the natural environment with its ecosystems and services has been integrated in the place making process in different disaster recovery process. At the same time how different rebuilding processes have addressed the challenges to connect both past and future needs and aspirations of the beneficiaries.

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So there are few references listed out so one can actually go through that. Thank you.