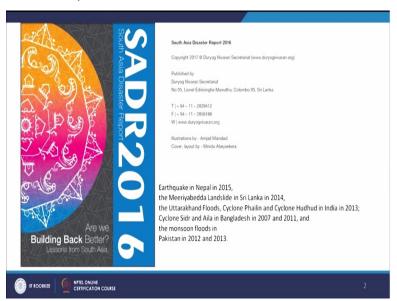
Disaster Recovery and Build Back Better Prof. Ram Sateesh Pasupuleti Department of Architecture and Planning Indian Institute of Technology, Roorkee

Lecture - 23 Build Back Better in Nepal Recovery

Welcome to the course, disaster recovery and build back better. My name is Ram Sateesh. I am an assistant professor in Department of Architecture and Planning, IIT Roorkee. Today, we are going to discuss about build back better in the case of Nepal recovery.

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So, whatever I am going to discuss with you today, it will be from the South Asian disaster report which was published in 2016 and these about the BBB the build back better and how different case studies are able to produce different lessons, what we can take back and how we can learn from it because every disaster experience provide us some lessons to take over for the future.

So, this has been published by Duryog Nivaran secretariat and this is about the build back better concept as a theme and how it has been implemented in different disaster context in the South Asian region. So, they have tried to cover the earthquake in Nepal in 2015 and the Meeriyabedda Landslide in Sri Lanka in 2014, the Uttarakhand Floods, Cyclone Phailin and Cyclone Hudhud from the Indian geography and which was in 2013, Cyclone Sidr and Aila in Bangladesh in 2007 and 2011 and the monsoon floods in Pakistan in 2012 and 2013.

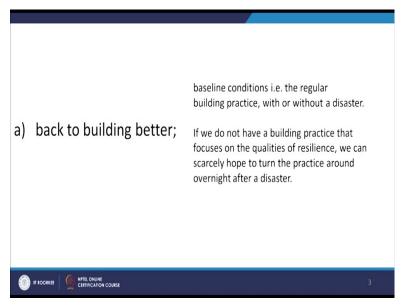
So, if you look at it from 2007 to 2015, almost like how about 7 to 8 years, we can see a variety of disasters hitting the South Asian context and we as a different countries though it is a Pakistan, Sri Lanka, India, Bangladesh and as well as Nepal, we share some similarities, not only from the cultural aspect but also from our socio-economic context of it and our the vulnerable context of it and the development setting of it.

So, instead of comparing with something what is happening in Netherlands, it is good to see in a similar geographies, in the similar vulnerable context and a similar development context how these build back better approaches have been adopted and what are the challenges to build back better. And whether it is an institutional level challenge, whether it is a legal challenge you know, so all these things will be discussing about.

So, in today's lecture, we are going to discuss about the Nepal earthquake recovery, which has hit in the April of 2015 and as a part of this report before this there have been some event which happened in Delhi and School of Planning and Architecture, New Delhi also have been part of this and initially this report discusses about the jargon on similarities and dissimilarities of a build back better, the notion of build back better.

So, they try to alter a few words and they try to present you know, how each of these terminologies refers to what.

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Number one, back to building better; it refers to the baseline conditions that is a regular building practice with or without a disaster. For instance, if we don't have a building practice

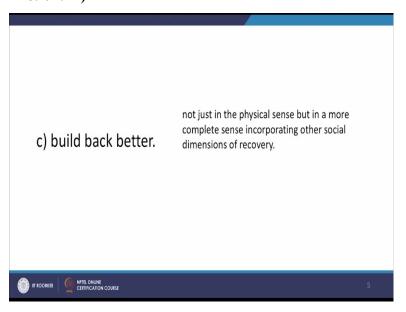
that focuses on the DRR or the qualities of resilience, we can scarcely hope to turn the practice around overnight after a disaster, so this is the first concept.

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Whereas, better building back; so this talks about a sense of urgency to build back. So, this is in the event of a disaster. Imagine, if we on the pretext of build back better, if we do it very slowly after a disaster, then on the pretext of build back better then, it will also compromise the community resilience because the slow process also will compromise the community resilience, so that is where the second concept is working.

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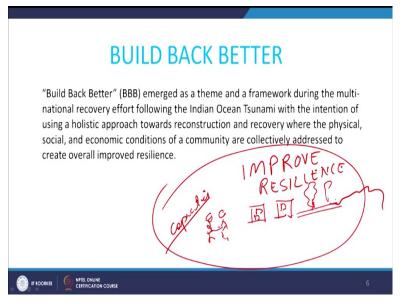
The third concept which is talking about the build back better, which is one of the important subject of our whole course. It is not just in the physical sense, you know that we build

infrastructure, we build housing, we build the schools, we build hospitals, this is not just only in the physical sense.

But in a more complete sense incorporating other social dimensions of recovery, how we can build the capacities, how we can build trust, how we can develop the belief systems, you know, how we can develop cooperation, how we can develop the partnership, how we can enhance the social capital. So, all this putting together, apart from only limiting to the physical sense, we need to embed all the social and cultural and economic aspects sent to it in a holistic sense.

That is where we talk about the build back better; it emerged as after the 2004 Tsunami, it emerged not only as a theme but also as a framework during the multinational recovery effect because each and every nation is putting certain efforts in the disaster recovery and the intention of this is we have to use a holistic approach towards reconstruction recovery with the physical, social, economic conditions of a community are collectively addressed to create overall improved resilience.

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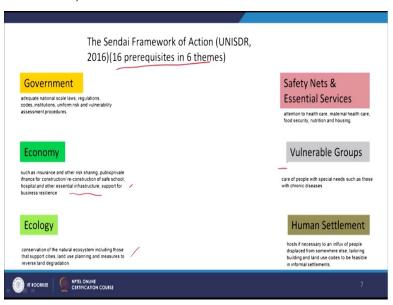


So, it is not just only we build the housing and we are not only building the roads, we are not only building the infrastructure but we are also dealing with the capacities you know, of social, economic and then how this whole setup will also improve resilience. So, resilience to what, to cope up with the future shocks and stresses that have been imposed not only because of the disaster but with various other vulnerable aspects.

Like it could be a market issue, it could be in a political crisis, it could be a war, so how we can prepare them so that they can able to cope up with it. So, this is how we call it as BBB build back better and in Sendai Framework of action which we already discussed about this in the earlier classes as well, there have been 16 prerequisites, which has been listed under the 6 themes.

Because in order to improve the resilience each and every nation has to incorporate certain action plans in order to address these 16 prerequisites and how these are grouped into different themes.

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Number one is government, when we talk about the government aspect, it talks about adequate national scale laws, you know what are the regulatory mechanisms and building codes how to improve the building codes, in order to the disaster-resistant aspect of it and the land use planning, institutions and when we talk about codes, that is where it is addressing the uniform understanding of the uniform risk and vulnerability assessment procedures.

Then, the second one we talk about the economy and this is where we talk about insurance and other risk sharing public private finance for constructions because who will provide the finance for the constructions, what stages, like in different cases we also have discussed in Argentina, how the four cafe funds have been used from different organizations have put together whereas, the public and private partnerships are coming together and how the needy infrastructure and support for the business resilience.

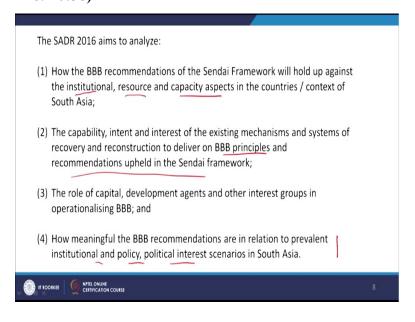
Then, the third aspect is the ecology and this is where the conservation of the natural ecosystem, how important is it, in order to protect the habitats from the disasters. So, this is where the land use planning and measures to reverse the land degradation, you know how we can reverse the impacts and how we can bring back the nature. So, these are all part of the consensus of this Sendai Framework.

Safety nets and essential services, so this can talk about the health care, HIV, maternal health, food security, nutrition and housing and why we are talking about the safety nets and health because most of these affected are the poor, which have a limited access to the medical facilities of the health infrastructure and this is where and also, the access to shelter. So, this is where we need to address that poverty aspect also into this providing them the basic needs and essential services.

And that is where we are talking about the vulnerable groups, who have special needs such as HIV, chronic diseases or even the elderly people who are unable to cope up with their livelihoods and unable to cope up with certain stresses and shocks, so who are these vulnerable people, human settlements because many at the cases like in the disasters people migrate to different places and they try to settle down.

And this is where we need to talk about the tailoring and the building and land use, codes to the feasible in informal settlements.

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So, this report the South Asian Disaster Report, what does it aim? It aims to analyze these 4 aspects? One is how the build back better recommendations of the Sendai Framework will hold up against the institutional, resource and capacity aspects in the countries, context of South Asia. The second, the capability intent and interest of the existing mechanisms and systems of recovery and reconstruction to deliver BBB principles and recommendations upheld in the Sendai framework.

So, it is basically like having a benchmark how the existing mechanisms are able to set forth for the BBB principles. The role of capital, development agents and other interest groups in operationalizing, so it is talking about the implementation aspect, how these different capital and the development agents and how they are able to organize themselves, in deliver and operationalize the build back better.

Then, the last one is how meaningful the BBB recommendations are in relation to prevalent institutional and policy and political interest scenarios in South Asia.

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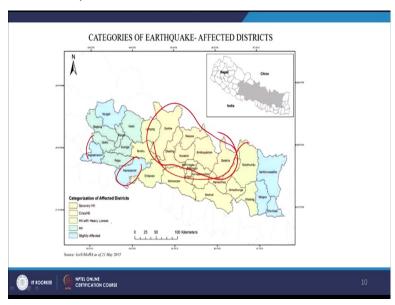
S. No.	Particular	Impacts in Number
1	Lives loss	8,896
2	Person injured	22,303
3	Private houses - destroyed	498,852
4	Private houses - damaged	256,697 —
5	Government building - destroyed	2,656
6	Government building - damaged	3,622
7	School building – class room destroyed	19,000
8	School building – class room damaged	11,000

So, all this they have been discussed in different cases including Nepal, Bangladesh and Sri Lanka, Uttarakhand, Indian context and as well as Hudhud cyclone and as well as Pakistan. So, today we will discuss about the Nepal earthquake. So, in April 2015, there has been a major earthquake 7.6 Richter scale which has hitted in the Nepal and it hitted the Gorkha region and at 11:30 it has striked the Gorkha region and again at 12:30 it has received about 6.6 scale and again after that it has keep receiving more than 16 times aftershocks.

So, from 7.6 to almost 6.2 the intensity started reducing, so this is where the earthquake phenomenon has hit in this particular whole country in different parts and aftershocks also have created many issues. The summary of the impacts is we talk about the 8,896 lives have been lost and almost 22,000 people have been injured and about nearly 5 lakhs private houses have been destroyed and about two lakhs private houses have been damaged.

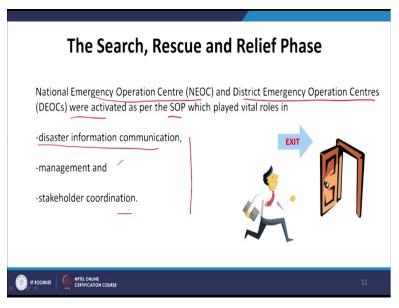
Public properties like government buildings about 2,656 have been damaged, destroyed and as well as government buildings which is above more than 3,000 have been damaged, school buildings, institutional they have been again destroyed more than 19,000 have been destroyed and 11,000 have been damaged.

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Now, if you look at the categories of earthquake affected areas, the severely hit region is about this Gorkha land and you have the crisis hit and as well as a hit with heavy losses and the moderately hit and very slightly affected you know. So, like that this has been zoned out and this particular region in the Gorkha region has been affected very badly.

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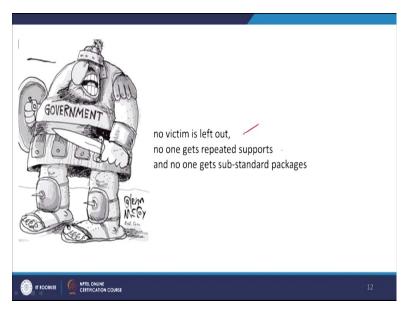


Now, we will discuss about 2 important phases of this whole process; one is the search, rescue and the relief phase. So, the Nepal has a very good system of the disaster management procedures and the standard operating procedures and this is where the National Emergency Operation Center and the District Emergency Operation Centers have been activated as per the standard operation procedures, which is we call SOP which plays an important role.

So, it is, it brings the communication between the national system and the local system at a district level. So, it focuses on the disaster information communication. So, from a national level to the local level how it has to set up that communication. The management and also how different agencies has to coordinate, that is where the stakeholder coordination.

And during this process, the government have tried to adopt a kind of single door entry, sort of thing because they have to channel all the funding mechanism, they have to channel all the NGOs, they have to channel all the relief operations. So, that is where a kind of one door exit options.

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So, the government want to make sure that no victim is left out and no one gets repeated supports because it is very common in any relief stage but one person because they are always craving for certain benefits or some needs which they are able to get in that phase. So, they want to make sure that something should be transparent and someone already got it they should not get again and again.

So, there should be a kind of uniform and very transparent nature and no one should not get a substandard packages, you know, someone has got a very better package, someone has got a very substandard package, whether in terms of the quality of the delivery or the quality of the product they have got, so you know, we should not compromise on that. So, that is where a government has been advocating in this kind of channel how everything has to streamline with this process.

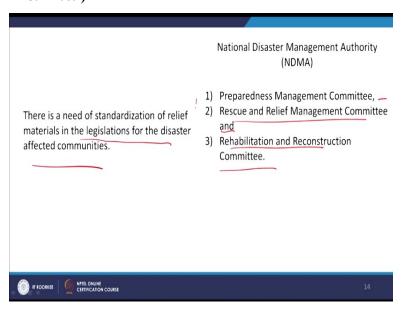
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But in reality, there are different partner organizations, which has distributed the goods and materials with different standards, as per their institutional standards and decisions, while some try to follow the international standards. So, obviously, it cannot be a very uniform and standardized material, so each organization whatever the resources they have and whatever the standards they have followed.

And as per their agency standards or the institutional standards and that is how they try to deliver the products.

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But the problem is this particular process has not been standardized, the reason why it has not been standardized is it has not been recognized, it has not been incorporated in the legal system, legal procedures. How to standardize these relief materials, how to standardize these

packages and that is where the first and foremost important part, there is a need of standardization of relief materials in the legislations for the disaster-affected communities.

So, each agency has worked in their own way, so this is one of the input. Then, we talk about National Disaster Management Authority, we call the NDMA which again focuses on the preparedness management committee has subcommittees, preparedness management committee, rescue and relief management committee and rehabilitation and reconstruction committee. So, this is going with the time process of it.

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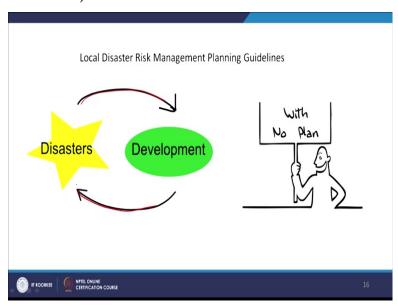


Now, in the rescue and relief management activities, they have a bill which has been as old as a dated bill of, they have an act of an existing Natural Calamity Relief Act, of 1982 which has a very limited scope in establishing these procedures and also the packages of the present conditions of the post-earthquake because it has one of the major earthquake and there are certain situations which has not been addressed and the demand has been high.

So, this is where this after the earthquake, this particular bill has been in the parliament in various discussions, until now it has not been formulated as an act. So, how this is very important that these lessons has to take forward in terms of policy, in terms of bills then formulated acts which further provides us a legal direction, how to do it and how to approach it, what to do it, in what way we have to procedure that establishes the protocols and procedures.

Then, Nepal has very interesting aspect of how to connect the disasters and development. One is they have the LDRMP which is called Local Disaster Risk Management Planning. So, how the national level guidance has been translated into the local level guidance, is that is where with these planning guidelines.

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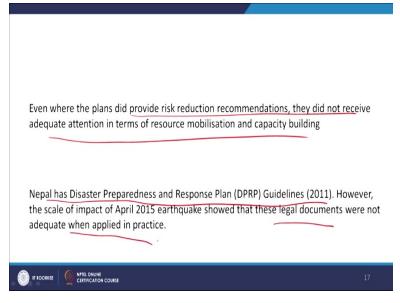


So, this can actually connect the disasters and development because if you go back to the literature of Frederick Cuny in 1980s where he talks about the disconnect between the disasters and the development, you know, the how the disasters and development are interrelated to each other, they are part of the process and in some cases yes in some councils they have this LDRMP which is the Local Disaster Risk Management Planning Guidelines.

But many of them they are not having plan, they don't have plan, so what to do with this and even, if there are the council's which are having the local authorities which are having plan and they also they did not receive any adequate recognition in terms of how to mobilize the resources and how to build the capacities. So, which means it is not adequate enough to guide the local municipalities how to enforce the local capacity to enhance the local capacities.

And how to mobilize the resources, skills, labour, materials, so this has been not been clearly mentioned.

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And similarly, there have been some observations on the disaster preparedness and response plan which is a DPRP Guidelines and this is again after the scale of impact because this is a major impact 7.6 Richter scale and having the aftershocks and that whatever the legal documents, they were not fully adequate to be applied in practice because the challenges are very complex, in this particular scenario.

And this is where one has to take these lessons and take it further to make it into a legal instruments. Now, we talk about the reconstruction and recovery of Nepal. So, first of all, it has adopted a post-disaster recovery framework which we call as PDRF. So, they have certain visions; one is they have certain objectives. Now, the first thing is setting up recovery vision and strategic objectives.

So, the very first and foremost part of the any framework is it should have a clear vision and a strategic objective and a clear policy which is needed for recovery and reconstruction.

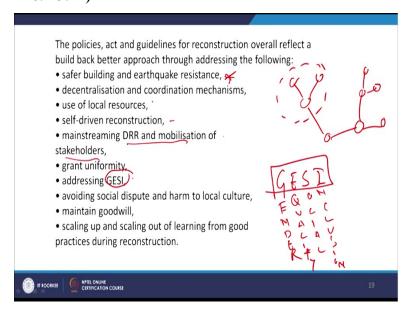
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The Reconstruction and Recovery of Nepal The Post-disaster Recovery Framework (PDRF) 1. Setting up of Recovery Vision and Strategic Objectives 2. Policy Needed for Recovery and Reconstruction 3. Institutional Framework for Recovery and Reconstruction 4. Implementation Arrangements for Recovery and Reconstruction 5. Recovery and Reconstruction Financing and Financial Management 6. Steps Towards Implementation of Post-disaster Recovery Framework

There is also the Institutional Framework for Recovery and Reconstruction, so how the institutional set up and how it can actually be advocated through a management process and this is where the implementation arrangements for Recovery and Reconstruction. And this is one of the foremost part is how to finance it, the financing and the financial management of it right.

In many cases, after the disaster, we keep hearing a lot of discussions on how different political institutions mismanagement of funds and how to deliver these funds, how to deliberate on it and how to negotiate these things, how to bring harmony in the process and this is where steps towards the implementation of the PDRF, the Post Disaster Recovery Framework, so these are the different stages the 6 steps for implementation.

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And the policies acts on the guidelines of reconstruction overall reflect a build back better

approach, they have addressed these aspects. One is building obviously, it is a safer building

practice and it has to adhere with the earthquake resistance, this is one of the prime. The

second is decentralization; the decentralization and the coordination mechanisms. Then, use

of local resources; using the local labour, local skills, local materials.

This will actually reduce lot of financial cost, operational cost and even it will be easy for the

management procedures. This is where we talk about the self-driven reconstruction, how we

can engage the people in the recovery process in the reconstruction process so that they can

build their capacities. Mainstreaming DRR and mobilization of stakeholders; so how we can

mainstream the DRR into the development process and how we can mobilize the

stakeholders.

Then, there is how we can ensure that there is a uniformity in the grant division and we call it

as GESI, addressing GESI especially in the South Asian context one is called gender, equality

and social inclusion. So, this GESI, how the gender aspects and the equality aspects and the

social hierarchy, how they have to be included in the development process, in the disaster and

development process is one of the important challenge in the developing countries.

Avoiding social dispute and harm to local culture; so this is also the social harmony, that is

what I reflected with. Maintaining a goodwill, scaling up and scaling out of learning from

good practices during construction. So, what happens is many at cases, the NGOs come

forward or some agencies or a setup will come forward, they work for 2, 3, 5 years and then,

they close the whole basket.

So, what about these lessons in these with the practice, they have set up how to take it

forward. So, this is an important mechanism we have to tackle, how-to, we can scale it up.

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Then, Approved Reconstruction Policy, Reconstruction Act, Reconstruction Bylaws or different guidelines and procedures. So, that is where the NRA, the National Reconstruction Authority, it brings 4 important because all these whether through the policy, the act or the reconstruction bylaws, they are talking about 4 important concerns. One is, understanding the disaster risk, including the risk of climate change.

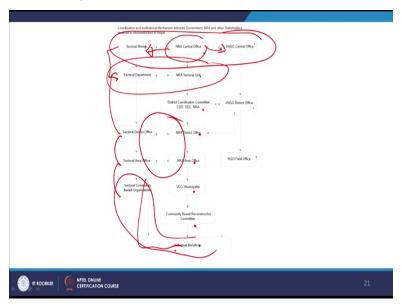
One is, you need to link with the climate change and DRR, that is an important component because risk disaster, risk is specific to a particular place but climate change, it is a time taking process and it is very gradual, right. But this is not maybe, as it is not the cause and the impact is not seen at one place but cause is somewhere else but the impact is also seen somewhere else.

So, I think in a holistically, how one can connect this whole approach is important thing. Then, addressing the livelihood, needs of the people during rebuilding and reconstruction. So, in the recovery process what happens to the traditional livelihoods, what happens to that, how we can enhance the rural livelihoods? Again, I discussed with you the gender and social inclusion in the recovery process.

Because, how we can enhance the woman leaderships, you know because this is what most of the deprived communities, how we can, we have to take this as an opportunity to bring them into the frontline. Decentralization and the governance, which actually, how the information is passed out, how things are managed and how things are coordinated, how things are supervised, how things are perceived.

So, all this instead of centralized approach, we need to think of the decentralized approaches. Now, this is coordination and the institutional mechanism between the government and the national reconstruction agencies and other stakeholders.

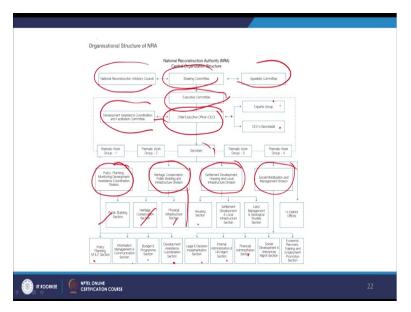
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So, whereas, we have the NRA Central Office, how it is coordinating with the sectoral ministry and the NGO Central Office and here, you can see that this is coming with the ministry to the department to the district and to the area and to the community. So, that is going as a funnel type of it. Similarly, the central office to the secretarial unit, district level, district office, area office, municipality, community-based and individually.

So, that is how these are linked into this aspect. Similarly, central office, district office and the field office you know, so they are all going in a macro level to the micro level and again and here, we need to establish a serious contact between a macro level and how it is also reflected in the micro level.

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And similarly, with the National Reconstruction Agency Authority, how a central organization, you have the Steering Committee, the Advisory Council and the Appeal Committee that formulates with the Executive Committee and this is how you have the Chief Executing Officer and which have the Facilitation Committee with interaction with the CEO Secretariat and the experts group.

And you have different thematic groups and the secretary is the coordinating aspect. In that, they have different programs; one is the policy at planning and monitoring and development, assistance coordination division. This is talking about Heritage conservation, especially in Nepal the Durbar Square which has been demolished completely, how we can look at the conservation.

The third aspect looks at the settlement development housing and the local infrastructure like roads and this is completely on the social mobilization how we can mobilize the human and resources and this is where we talk about the public building section, heritage conservation and physical infrastructure and this one is looking at the housing settlement development and the land development geological.

So, this is how this whole thing was coordinated and then it is further branched out in various policy, information management, budget, development, legal decisions, HR management. So, it is a variety of networks which is forming under a kind of tree you know, how it is branching out to a much more individual departments, then later on the divisions, later on to the sectors of it, so that is how it organizational structure of NRAs.

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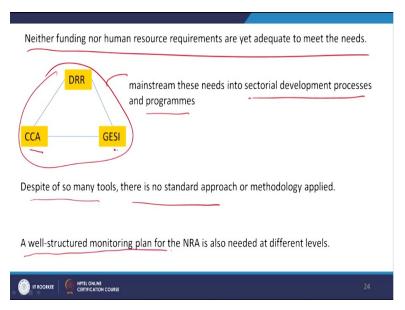


Now, some of the examples of how they are also encouraging the communities to be able to understand the irrigation rehabilitation, how they can first safeguard their crops, how they can fields you know, and enhance the unemployment youth and the communities of the mason training, so that they can learn that skills and they can be a part of the self-help housing process.

Sanitation awareness to woman health workers because sanitation is one of the very important issue in the developing countries and especially, for gender, you know the woman they don't have toilets and because of there could be some religious reasons, there could be some social reasons to it, associated to it, but how we have to sensitize them and how we have to make them aware that they have to be adopting the sanitary procedures, you know how they have to follow, how they have to give the importance.

Then, for elderly people there is a kind of T-Shelter, you know how they can also but if you look at there is a kind of temporary shed, you know the tin sheets, the galvanized sheets they have kept it. So, this is the kind of schemes which they have developed.

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Now, first of all, neither funding nor the human resource for equipments are not adequate to meet these needs because the needs are very vast. One is addressing the complexity of the DRR, the climate change and the gender equality and social inclusion that becomes one of the important challenge because we need to mainstream these needs into the sectoral development process and programs.

So, from a very holistically understanding do we need to develop as a program in a sectoral development? We have so many tools but there is no standard approach or a methodology applied. So, this is one of the important draw back despite of having tools why we are not able to get a kind of standard approach. A well-structured monitoring plan for the NRAs also needed at different levels.

Because though, we have a different organized structure, we need to think about the monitoring plan and which can address the bottom level realities to it. I think, this is given you a very brief understanding on what happened in the Nepal and how this build back better has been adopted both from a governess point of it and from the setup of it and you know by the legal instructions how they were not adequate to fulfill, so what are the challenges they are facing.

So, this has given you a little overview on the challenges of build back better. Thank you very much.