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

Lecture – 26
Decentralizing (Re) Construction in Colombia

Welcome to the course, disaster recovery and build back better. My name is Ram Sateesh, I am assistant professor in Department of Architecture and Planning IIT Roorkee. Today, we are going to discuss about decentralizing reconstruction and we are going to learn about this aspect from the cases of Colombian case which is reconstruction in Colombia.

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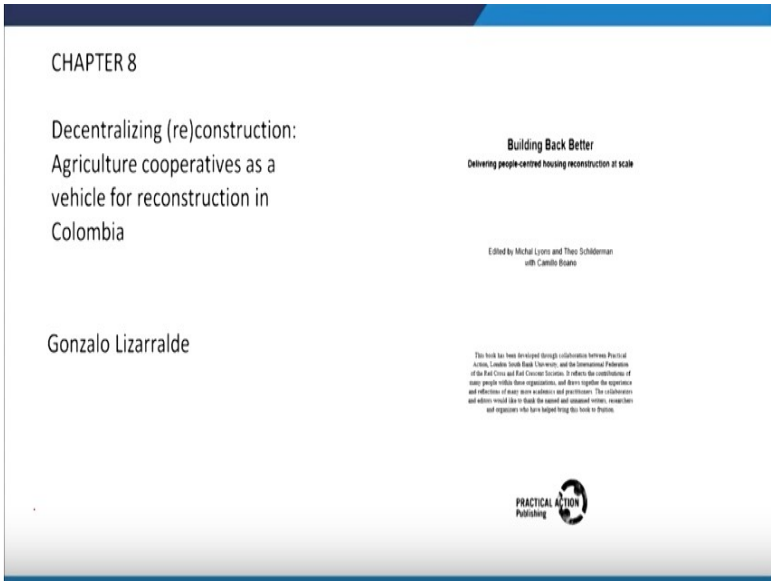

And today, whatever I am going to discuss you with about the Gonzalo Lizarralde and one of his chapter in chapter 8, is called decentralizing reconstruction agriculture cooperatives as a vehicle for reconstruction in Colombia. So this has been published in the built back better which was edited by Michal Lyons, Theo Schilderman, and with Camilo Boano and published by the practical action publishing group.

So, I am going to take the learnings and understandings from his narratives and from his work and so, that we can learn how the coffee workers society, how they all have organized the reconstruction after the earthquake of 1999. When we talk about decentralization, I think let's start our discussion with the centralized approach and the decentralized approach.

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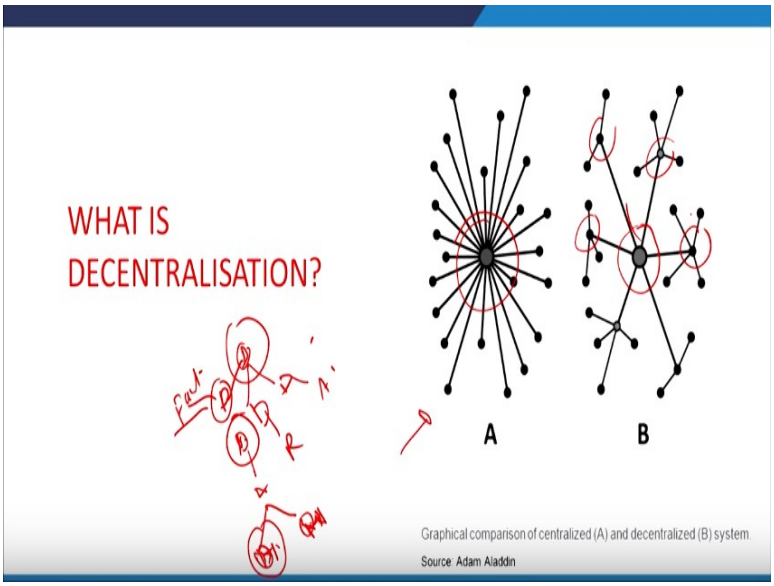

What you are seeing here, is the centralized approach, where all the decisions all the financial flows and everything is connected through the centre means. So, it is like a kind of dictatorial order or because this particular approaches are very much used in the business sector and also the decision-making sector in the politics you know, so this is how we can actually reduce our burden taking everything on our own so how we can actually decentralized.

So that what we do is earlier it was all one man's decision and one body's decision or one organization's final decision and all the flow has to take an approval of that so that is how it used to do. So now, as the population have increased as the constraints have increased as the load has increased and that is where many of the models have approached on spreading the load to the other sectors the other bodies.

Like for instance, if you look at any administrative setup like our own IIT we have a director then we have the deans and we have a director and we have the deans and so, someone is taking care of the faculty affairs, someone is taking of the academic, someone is taking with the research, someone is taking to administration and then each this is further divided into different departments and different heads are taking care of it.

So in that way, head has certain powers including the financial power and as well as certain decision-making authority and certain authority has been spitted into these different deans and the director is looking at the overall working of the IITR. So similarly, it has been branched out and subcategories so that certain powers are vested on different bodies and certain decision-making mechanisms have been channelled through.

And also, administrate by a central agency. So, this is how the very basic fundamental difference of a decentralization. In the housing sector, in the housing delivery, there has been a traditional approach, which is a concentrated approach and what are the benefits and risks associated with this approach. One is because it's one authority has to compile a lot of information as a given if it is an authority or it is a small team has to collect a variety of information.

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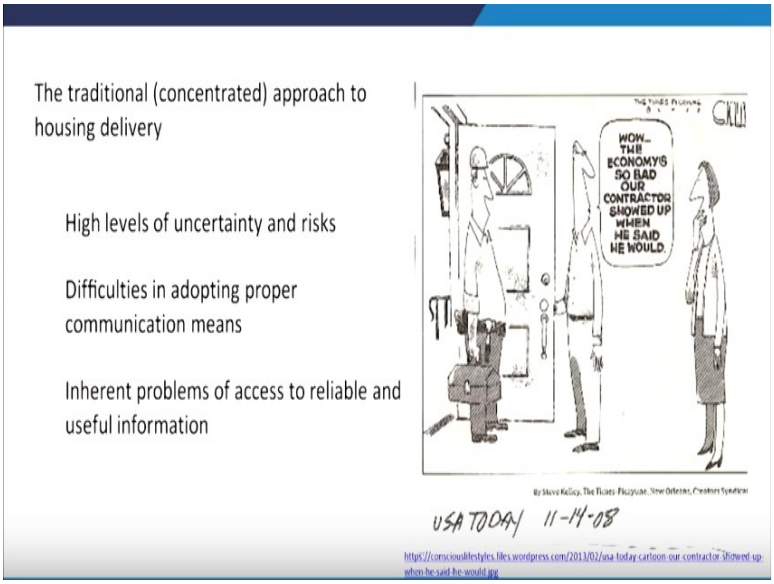

And they have to take decisions on that. So, this is where there will be a chances of high levels of uncertainty and risks and difficulties in adopting proper communication means so, how at a higher-order level, which can communicate to a lower order level or you know how a macro level will look at a micro level communication, inherent problems of access to reliable and useful information.

So, there is always an indigenous, the difficulties in accessing the information of even a micro-level segment it could be an information about a behavioural aspect of a particular community

group, so that becomes difficult. So, that is where much of this traditional approach they often end up with a contractor. So, most of the times whether in case of crisis in the case of economic crisis so these contractors will be ready.

And that is how most of these traditional approaches the housing delivery is wasted upon the contractor driven process because they are obviously a profit-making body and for them also it is an employment opportunity and through them, there is also some subgroups which will also benefit from them. So this is how the traditional approach works but the problems are different.

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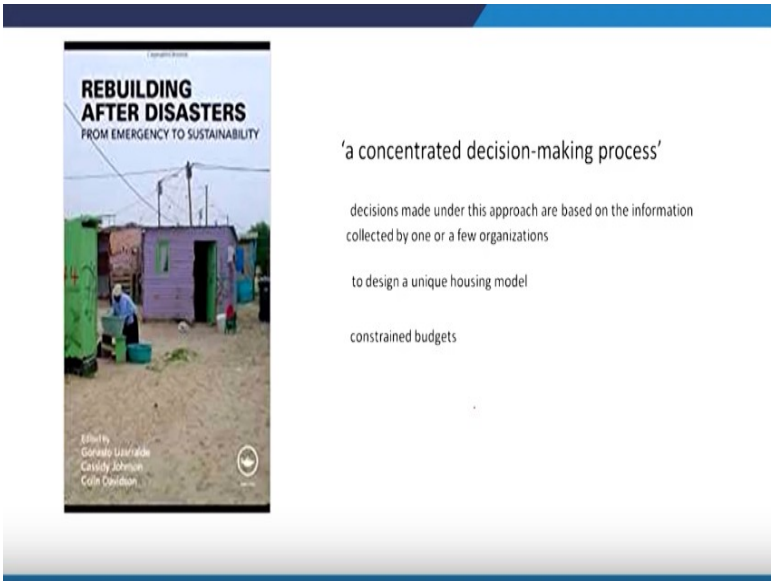

And in fact, Gonzalo Lizarralde and Cassidy Johnson and Colin and they have actually worked on rebuilding after disasters from emergency to sustainability, where they talk about it is a concentrated decision-making process. Now, as I said to you because you have to gather a traditional approach you have to gather a heap of information a variety of information and that is where they are based on by collected by one body or a few organizations.

They end up developing a unique housing model because they have many other challenges including the budget constraints they have to finish and they have the time limitation, there could be a political pressure.

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So, that is where, so finally, they end up and coming up with a tested model and then they try to replicate it in different contexts irrespective of the site context, irrespective of the community context they end up replicating a uniform unstandardized development process.

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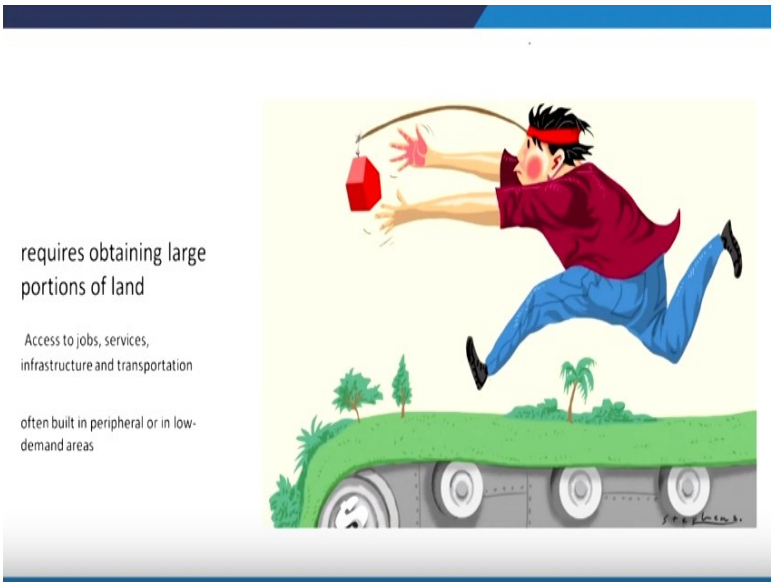

But in reality, if you want to develop this kind of the processes, you need to acquire a large portions of land because if you want to deliver a huge housing project you need to have ample of land to have that kind of segment not only that you need to have access to the jobs, services and another infrastructure and transportation. You might find a land outside of the city you might because it was coming for cheap and you might put all the reconstruction activity there.

And but what about the jobs of the people, how do they travel, how do they commute when there is no service sector, the transportation facility, there has no jobs, if you are especially, you are dealing with the informal sector how you are going to provide them. So this becomes one of the important challenge and mainly they also have to talk about when we are talking about finding a land and developing a housing project.

They need to the team or the organization they will be responsible.

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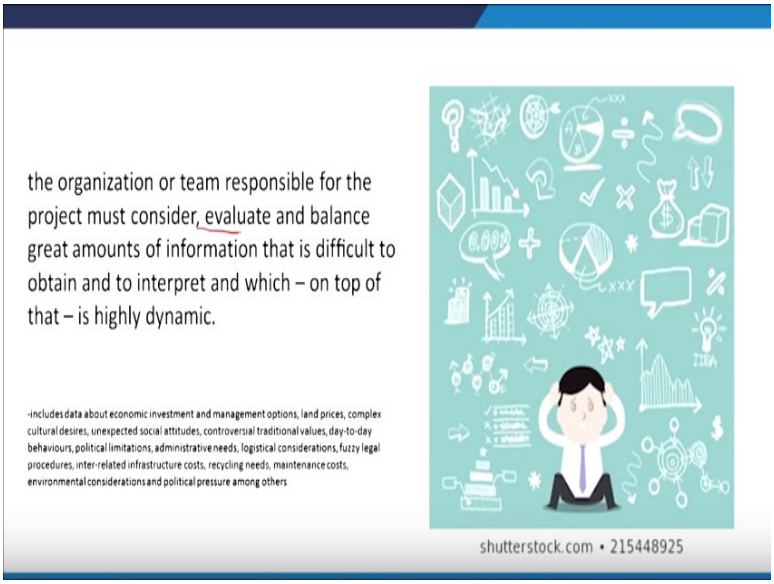

To evaluate and balance great amounts of information, that is difficult to obtain and to interpret and what kind of information we are talking, the information about economic investment, the management options, land prices, complex cultural desires, unexpected social attitudes, controversial traditional values, day-to-day behaviours, political limitations, administrative needs, and logistical considerations and fuzzy legal procedures.

Inter-related infrastructure costs, recycling needs, maintenance cost, environmental considerations, and political pressures. This is a variety of information and a single team will get confused of a variety of information and how to go ahead with it, this becomes biggest challenge. So, in this process, because there is a hell lot of information but then the project has to move on and that is where it often end up with a kind of contractor driven or an uniform and standardized models of it.

And this is where, a restricted number of builders, professionals and advisors benefit from the investment made and whatever it is a kind of contractual process and this the problem with this is where a formal builder versus with the informal sector, the informal communities.

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And the informal communities, they have a very diverse livelihoods. In Indian context, if you can say there was some people who place with mine caves, there people who was working as a housemaids, there are people who are working as a small farmers, there people who are working as a garbage collectors. So, there are a variety of informal sectors, it's a very complex phenomenon.

And in this, you one has to also understand that the small bodies which may not have been recognized, which has about a informal companies like we call it as small and medium enterprises which may or may not legally recognized by the professional associations. They play a fundamental role in handling these informal sectors.

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In Colombia in 1999, there was a huge earthquake of 6.2 Richter scale and what you can see is a devastation in Armenia, it has affected both the urban setups and as well as the rural setups and today we are going to more talk more about the rural setups especially with a particular cooperative society of agricultural cooperatives on coffee growers. Now Columbia is known for its coffee growing, it's a coffee culture.

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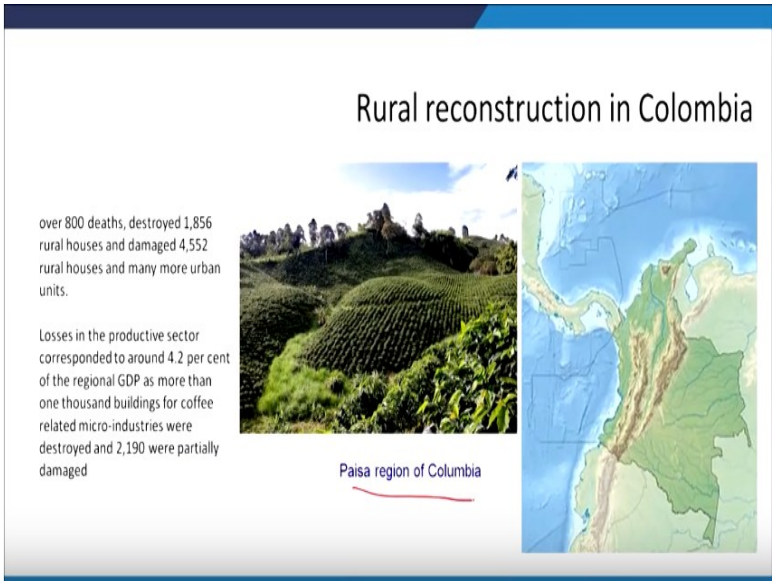

That is where, this Paisa region of Colombia which is known for its rich coffee products and there are about 4 departments in this particular region which famous for its coffee-growing culture and even this they have been affected by the earthquake the rural communities have been

affected that's about 800 deaths which has destroyed about 1,856 rural houses and many more urban units.

So, it also have loss the productive sector which around 4.2% of the regional GDP because that is one of the prominent industry in the Columbia and 1,000 buildings for coffee-related micro-industries. so whether it could be filtering you know industrial inputs or any other warehouses or storage so all these things have been destroyed and either fully destroyed or partially destroyed but if one has to understand the Colombia.

The especially the rural communities as we discussed in the theories of vulnerability, it has been noted very much from the extensive literature that it's unequal distribution of wealth and land. There is an urban agglomeration as well as the rural poverty. There are also slumps the informal settlements which has occupied in unsafe lands in the urban setups.

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The social and political indifference towards rural poverty and also the homelessness the rural residents rarely access to the banking services and even health care. So, the moment if you are not access to the banking services that itself tells you know, what is the level of the poverty indication. So, health care which is a fundamental aspect so many of these rural set ups they are not often access to the health care and as well as the banking financial instruments.

And in the earthquake, the existing social factors merged with these physical vulnerabilities.

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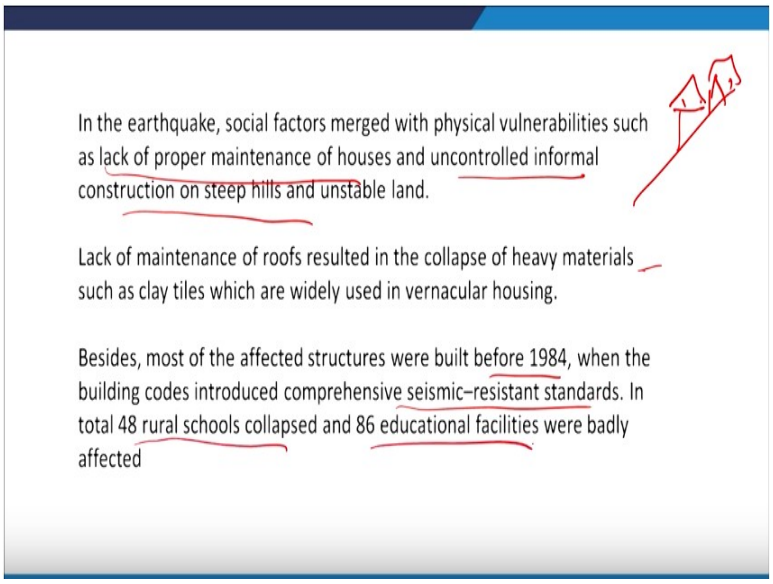

Lack of proper maintenance of houses and uncontrolled informal construction on steep hills and unstable land and lack of maintenance of roofs resulted in the collapse of heavy materials such as clay tiles which are widely used in vernacular housing and most of these affected structures were built in 1984 when the building codes introduced comprehensive seismic-resistant standards. In total 48 rural schools collapsed and 86 educational facilities were badly affected.

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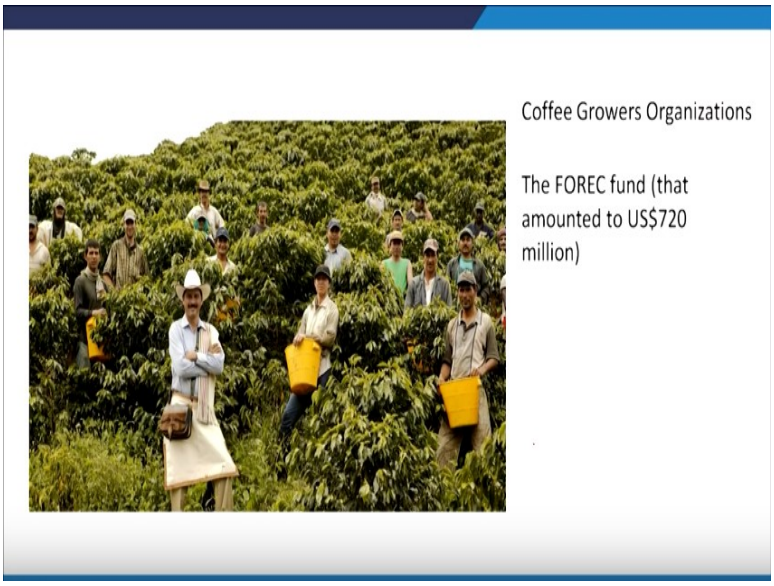

So, being a large society of coffee growers is a coffee growers federation which is now termed as coffee growers organizations. So, what they did was the society there is a FOREC fund which

has been support with the support from the government it has been formulated it's about it contributed about 720 million.

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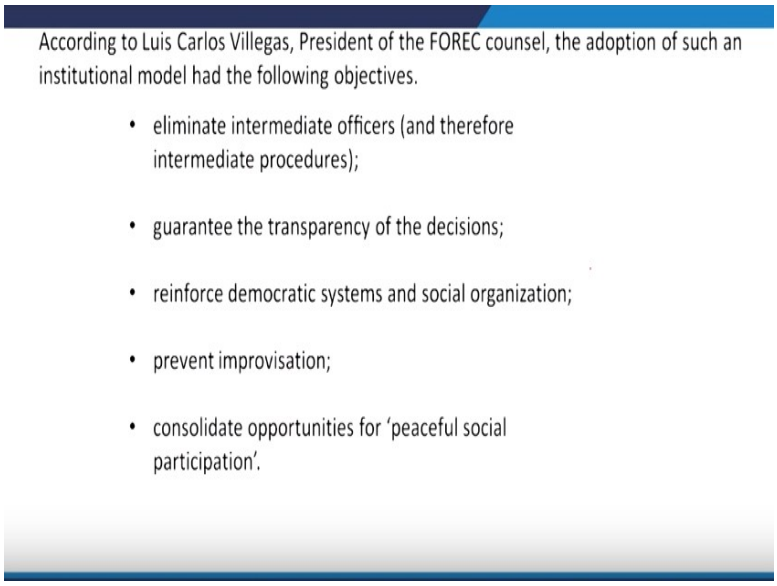

And, the president of this FOREC council, he adopted a certain institutional model which has an objectives, one is eliminate intermediate officers because corruption is an important priority so that when the moment you are eliminating the intermediate offices you are eliminating the whole procedure itself, guarantee the transparency the decisions, reinforce democratic systems and social organization.

How we can build our social setup in a democratic approach, prevent improvisation and consolidate opportunities for peaceful social participation you know how we can create opportunities.

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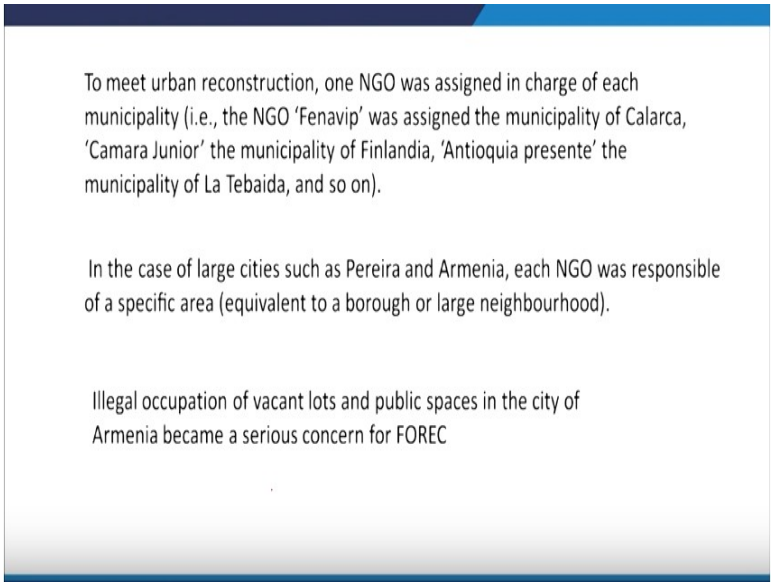

And what they did was, they, in order to meet this kind of process they adopted a decentralized approach so for each of the municipality, so the many NGOs came forward to support for this reconstruction activity and then what they did was at least they have given each NGO a particular task and then each one NGO was assigned in charge of the municipality. For example, an NGO 'Fenavip' which has been assigned the municipality of Calarca and Camara Junior.

The municipality of Finlandia and 'Antioquia presente', the municipality of La Tebaida and so on. Whereas, in the large cities like Pereira and Armenia, each NGO was responsible for a specific area due to it's the size which is almost equivalent to a borough or a large neighbourhood and the biggest concern is illegal occupation of vacant lots and public spaces in the city of became a serious concern of FOREC because this is not coming into the considerations.

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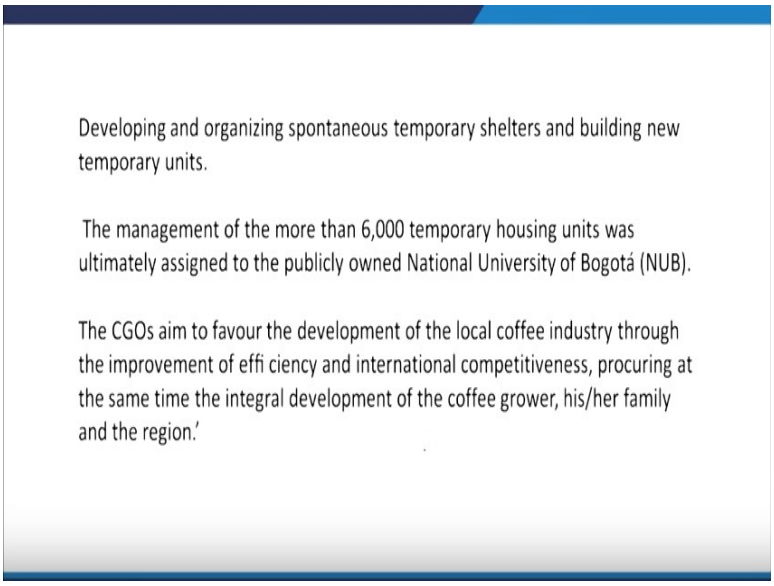

And under the FOREC responsibilities, temporary shelters was not been a part in the initial process but then, people have started building their temporary units whatever the resources they had so, this is where the temporary shelters and building new temporary units have already started, in whatever the lands they are not available. The management of the more than 6,000 temporary units was assigned to publicly owned national university of Bogota.

So, this is where the coffee growers organizations, they actually aim to favour the development of the local coffee industry through the improvement of efficiency of and international competitiveness and procuring at the same time the integral development of the coffee grower his/her family and the region. So, because being a cooperative society of the coffee growers association.

They focused on how we can enhance their livelihoods, their the whole support systems and based on their experience as an co-operative society the CGOs they have actually could able to address the peasant communities needs. One is supporting and gaining credibility for the community, infrastructure spread throughout the rural areas, administrative and financial capacity coupled with organizational infrastructure.

And the local know-how, availability of own resources, independent decision making this is talking about the capacity.

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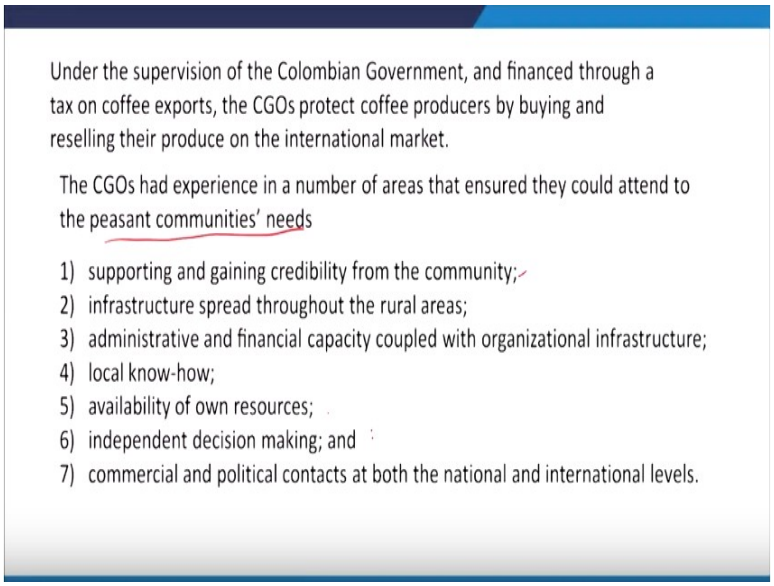

Commercial and political contacts at both national and international. So, it basically it is relating how rural set up could be linked with much more of a national and international setups.

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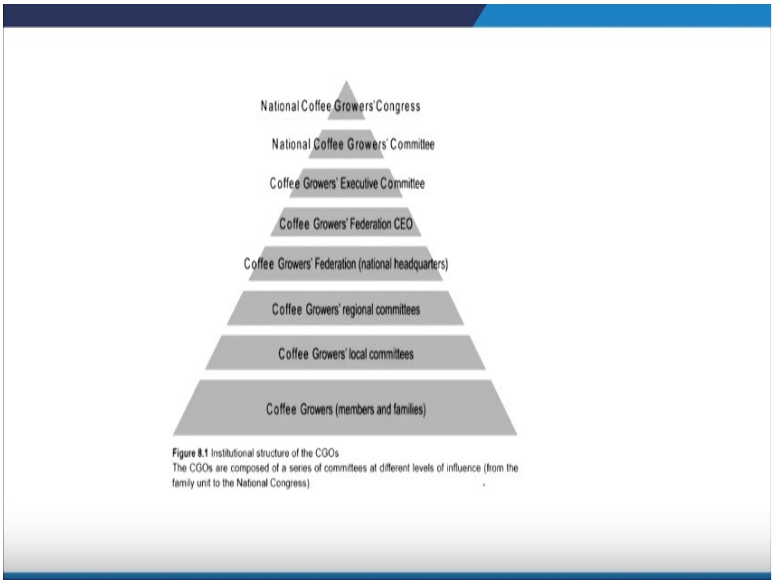

And the whole structure has been framed where the coffee growers they have the constituents of family businesses a small family businesses and which are again linked with the coffee growers local communities. So each group of family businesses constitute a particular local communities and then again they contribute with the regional communities and this is where the coffee growers federation you know.

Even in India, we have the South Indian Fishermen Federation which is in Kerala. So, that is where we are talking about each community have their own setup and these smaller setups contribute a local community, the local community contributes a regional committee and then adding with the federation and that is where coffee grower's federation CEO who looks into the overall process.

And there is also the executive committee, the growers, national-level committee and the national coffee growers congress on the summit. So, this is how the structure has unable to look into a decentralized setup. So, there is two phases of the emergency phase and as well as the permanent phase.

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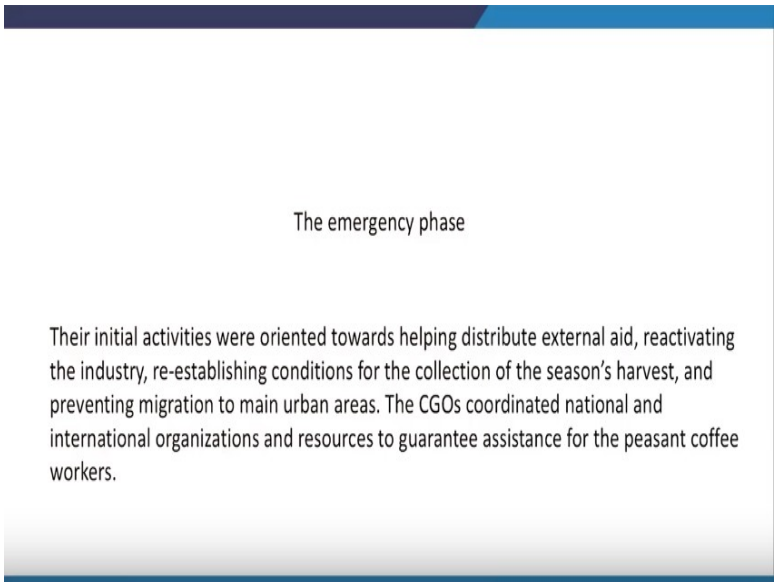

And here, in the emergency phase, we talk about what is the role of this CGOs, they actually worked as a kind of fund managers, how to distribute the external aid, reactivating the industry and re-establishing conditions for collection of seasons harvest and preventing migration to main urban areas. So, they also provided at this stage providing tents and some food, rations all these activities have been provided during this phase. In the permanent reconstruction, there is also the hard and soft needs.

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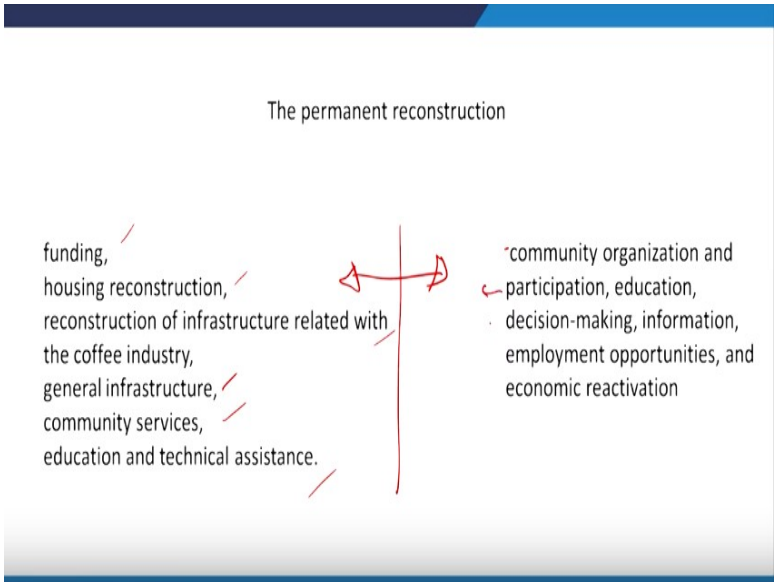

The hard needs, which talks about the funding, housing reconstruction and reconstruction of infrastructure related to coffee industry, general infrastructure, community services and educational technical whereas, here it talks about the soft needs community organization how to build this and participation, education, decision-making capacities and information channelling, employment opportunities and economic reactive.

So, how they are also looked in parallel and hand-in-hand along with the physical and the hard infrastructures to along with the soft needs.

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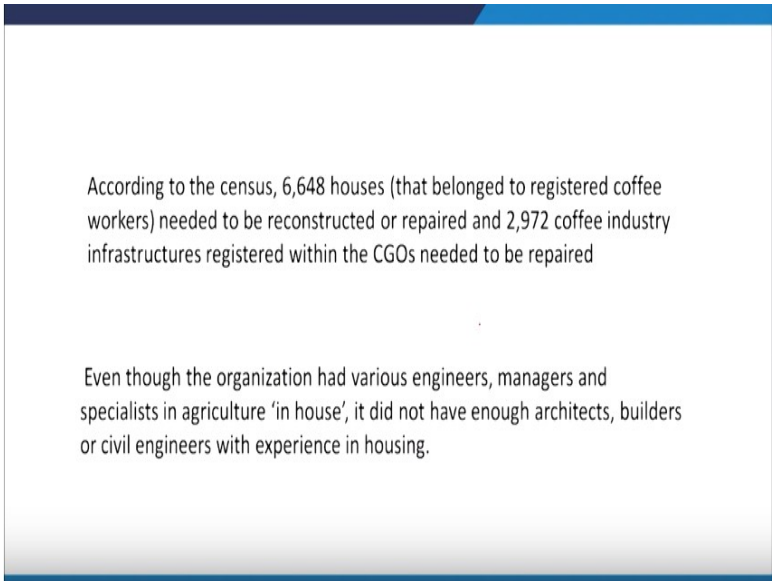

So, when they make this assessment of the early stage the census says 6,648 houses need to be reconstructed or repaired and 2,972 coffee industry infrastructures registered with the CGO need to be repaired. So, if you look at the setup of any cooperative society which is focused on a particular agricultural sector, they were having the technicality with relation to the agricultural setups.

But they do not have enough architects or builders or the civil engineers who has an experience in housing, this is one important aspect which they have looked into it.

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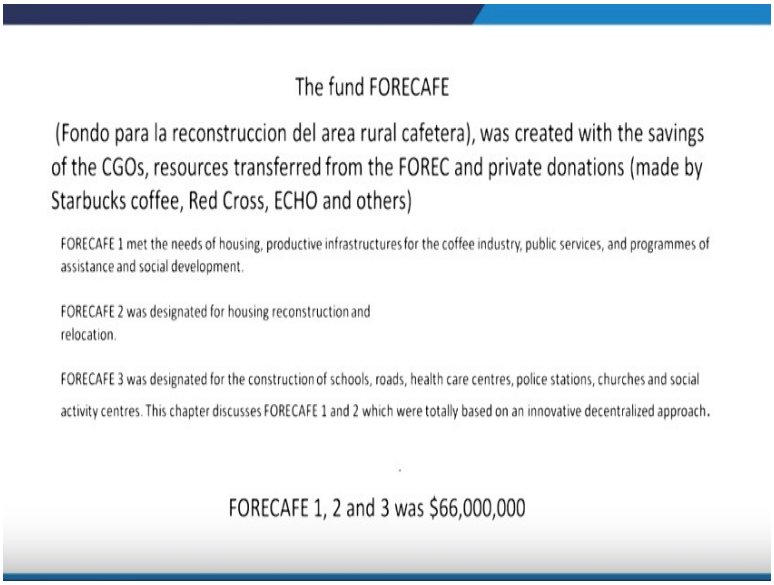

And that is then following upon this assessments and all, a fund has been created is called FORECAFE fund is a Fondo para la reconstruction del area rural cafetera has been created with the savings of the CGOs, resources transferred from FOREC and private donations which has been made by like many coffee agencies like Starbucks coffee, Red Cross, ECHO, and others.

Now, they have been 3 phases of this funding process, one is the FORECAFE 1 which has met the first stage met the housing needs, productive infrastructures for the coffee industry, public services and programmes of assistance and social development whereas, again therefore later on some more fund has been added this is where it was designated for housing reconstruction and relocation.

And, in the last FORECAFE third stage it was designated for construction of schools, roads and health care centres, which has more to do with the public infrastructure, police stations, religious infrastructure like churches and social activity centres and FORECAFE 1, 2 and 3 together it talks about 66 crores rupees.

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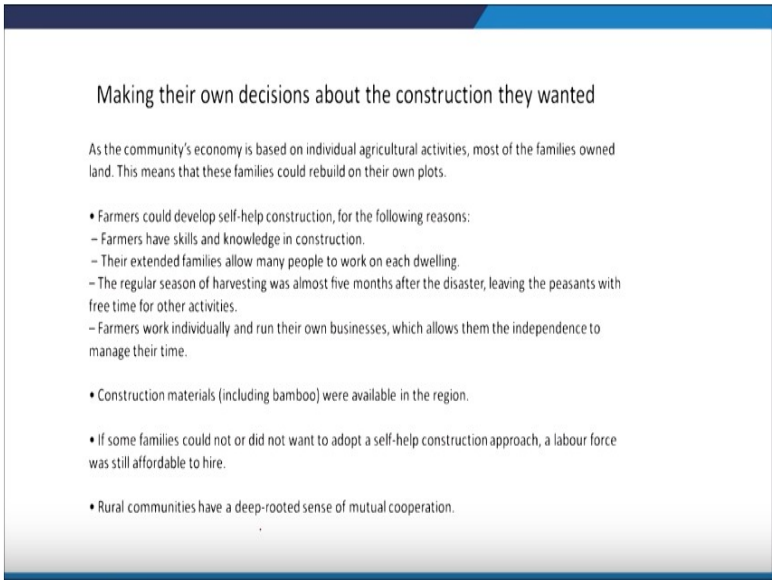

And first of all, making their own decisions about the construction they wanted. So, now how this decentralization process have explained, have been implemented. Now, in most of the cases being a farmer's community and most of these individual agricultural activities, most of these families own land so that at least they have a capacity to build on their own piece of land and they could able to develop self-help construction for the following reasons.

One is farmers have skills and knowledge in construction, their extended families allow many people to work on each dwelling and because as I said to you earlier, it is a family businesses, their regular season of harvesting was almost 5 months after the disaster leaving the peasants with free time for other activities and also farmers work individually and run their own businesses which allows them the independence to manage their time.

So, it was not if you compare in the fishing sector in Tamil Nadu it was very quiet different set up. Construction materials including bamboo were available locally in that region and at least if some elderly people or if they are unable to make their own can self-built self-help construction

then still the labour was easily accessible and they were affordable as well and rural communities have a deep-rooted sense of mutual cooperation.

It's unlike an urban setup the rural community cooperate with each other.

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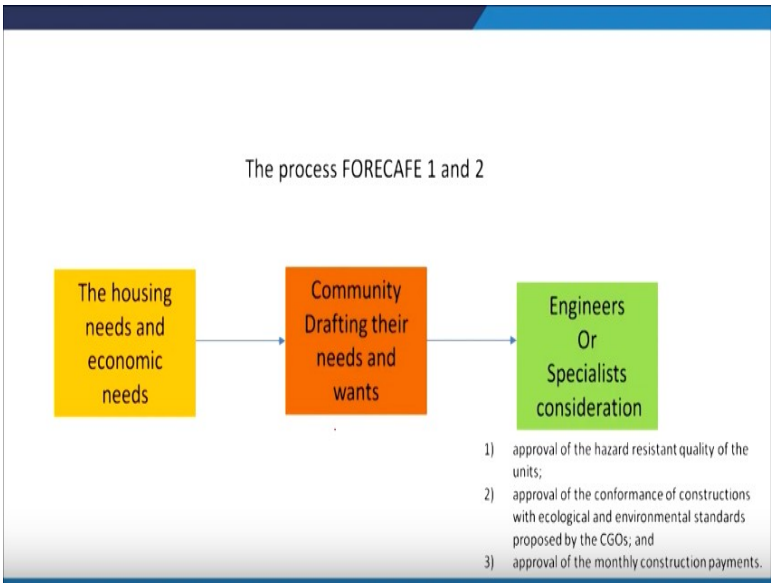

So how the process, so the process of FORECAFE 1 and 2 fund in the housing reconstruction, first, once the society the individuals when they realize the housing needs and economic needs so they actually made their understanding of their requirements in a piece of paper and they drafted that in what they want and that is where the engineers or specialists about 17 engineers were working in order to assist them with the technical expertise.

And what are the ways they were assisting, approval of hazard resistant quality of the units so it could be a 2 bedroom and a kitchen and 1 small toilet, approval of the conformance of the construction with ecological and environmental standards and approval of the monthly construction payments? So, there are many ways these kind of subsidy process also worked. Like for instance, if you are getting some loan out of it.

Then, you again you need to finish 25% of your construction then get the payment next then you followed upon so in that way they are able to look at the payment process also. So, once the affected families could receive the financial aid, infrastructure, technical support.

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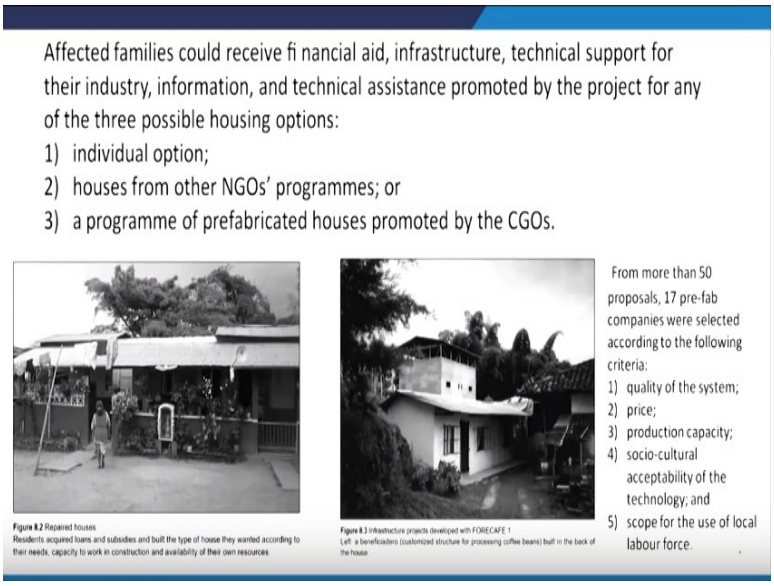

For their industry, information and the technical assistance promoted by the project. For these 3 options, they have been getting some support, one is the individual option, the second one is houses from other NGOs programs and a program of prefabricated houses promoted by the coffee grower's organizations. What you can see here is some examples of the repaired houses so here they could able to procure some loans and subsidies.

And build the type of house they wanted according to their needs, capacity to work in reconstruction and availability of their own resources whereas, this is again a customized structure for processing coffee beans which is necessity for a small scale industry and there has also been proposals they brought about the invitation for their companies to come and showcase different topologies of the prefab housing.

And, this is where about 17 prefab out of 50 proposals 17 prefab companies were selected based on the following criteria, one is the quality of the system, the price, the production of the capacity, socio-cultural accessibility, acceptability of the technology and scope for the use of labour force. So, this is how these are the criteria they have looked at and they qualified 17 of the companies. Now, this is a good example of what you can see is a house.

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Figure 8.4 House made with prefabricated materials
An exhibition was organized by the CGOs to promote a parallel programme of pre-fab housing targeted to give alternatives to the beneficiaries of the project. Some residents (like the owner of this house) benefited by buying materials and copying ideas.

Figure 8.5 Self-help project
This beneficiary reconstructed part of the house and the septic tank

Made with the prefabricated materials and an exhibition has been co-organized by the CGOs so that to give alternatives for the communities so that they can take some inspirations in buying materials and follow up on certain ideas and there are also some service infrastructure investments which has happened some families they could able to reconstruct part of their house and also the septic tank for their service component.

And, there are different processes which went on one is how the subsidies have been supporting and in the 3 phases, one is the emergency phase.

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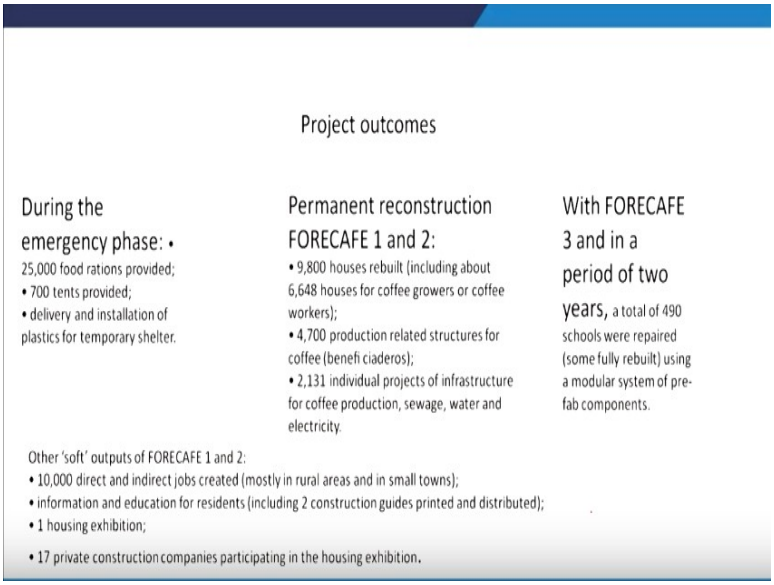

They have got about 25,000 food rations have been provided, 700 tents have been provided and these are the project outcomes and there is also the delivery and installation of the plastics needed for the temporary shelter and in the permanent phase about 9,800 houses have been rebuilt and which 6,648 house for coffee growers or coffee workers and others 4,700 production related structures for like the coffee beans filtering processes.

Or any other industrial purposes or packaging purposes and 2,131 individual projects of infrastructures for like sewage, water and electricity so all these have been incorporated and in the FORECAFE 3 budget they talked they focused on the schools and the essential public infrastructure like police stations, churches and using the prefab and modular components. Apart from this, there is also the soft outputs which is about 10,000 direct.

And indirect jobs have been created, information and education for residents and construction companies, which have participated and collaborated in exhibition. So all these have been a part of the project outcomes.

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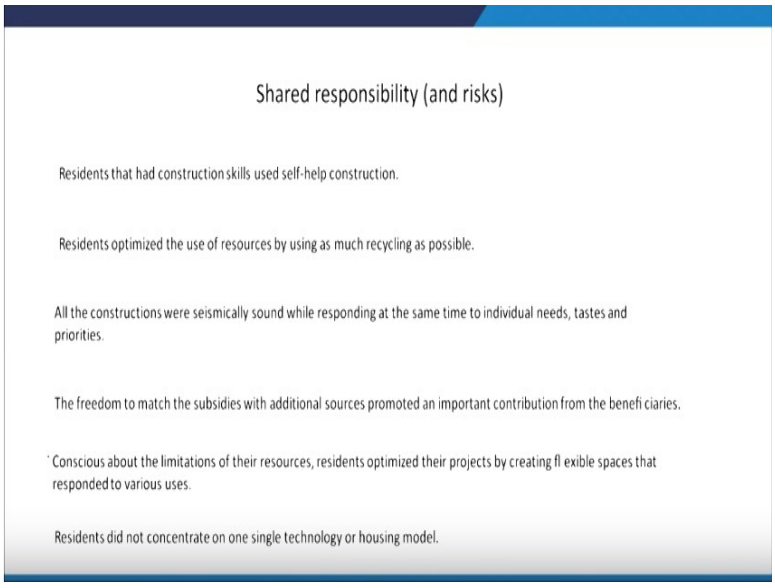

They just shared responsibility and risks, residents that had construction skills used self-help construction, for example, people who are farmers, they could able to come and participate in the reconstruction process but there is the elderly people they are able to hire some labourers,

residents optimized the use of resources by using the recycled material like from their old houses they use the doors, windows.

And other materials which have been reused which could reduce the cost and also get back the similar fabric what they had and because the engineers were evaluating all their proposals all the constructions were seismically sound while responding at the same time to individual needs, tastes and priorities, the freedom to match the subsidies with additional sources prompted an important contribution from the beneficiaries.

And, conscious about the limitations of the resources, residents optimize their projects by creating flexible spaces and responding to various uses and as a result, residents have not considered one single technology or a housing model, there is a diversity come into the picture. Of course, for any project, there are always some downturns.

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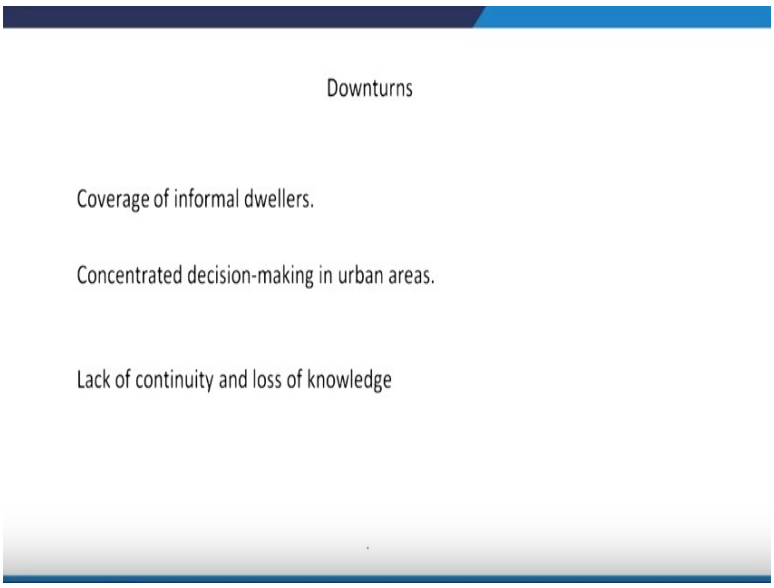

In this segment, in this whole project, because it's a coffee growers associations which I working on, the coverage of informal dwellers because informal sector is very significant aspect in Colombia which has not been addressed and concentrated decision-making in urban areas and lack of continuity and loss of knowledge what happens. These FORECAFE the project is closed after a few years, then it completely closed all the files everything.

So, there is no transfer of knowledge what the learning they have gained in this process and how it can be transferred to the future reconstruction projects. So, that is where the continuity and loss of knowledge because in terms of maintenance, in terms of any other allegations, any other issues to be taken further so that is where the continuity aspect has to be looked into it. I think this gives you a good example of how the bottom-up approach.

And also giving a variety of to the farmers needs and you know how the decentralized approach will have helped the coffee growers and to come up with their needs and wants and certain fund supports have been provided by the government and as other private sectors and how the association become a manager of fund manager in the controlling authority to look after the whole reconstruction activity.

And, this is where even the technical inputs have been incorporated there is also the hard and soft inputs have been provided through the reconstruction process. I hope, this helps thank you very much.