

2019 Asia-Pacific Regional Community Networks Summit
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Plenary 2: Community Networks and SDGs

(rough transcript)

>> So we need to begin our session. The second Plenary is on community networks and Sustainable Development Goals. Our speakers for this session is Mr. Heon-Jun Kim, senior program management expert at UN project office on governance. And we have Babu Ram Aryal, founding member of Internet Society Nepal. And we have Dr. Sarbani Banerjee Belur, senior research scientist of Garm Marg rural broadband project India. We have Waqas Hassan who the is President of the Islamabad chapter in Pakistan. And to moderate this session is Duangthip Chomprang, who is the director of the international cooperation. So let us welcome our panelists and we shall begin.

>> DUANGTHIP CHOMPRANG: Thank you very much. Thank you for sparring us at least a few minutes for introduction, which I originally was planning. So thank you.

So because of time although we are allocated one hour we have a dilemma because myself and a few speakers here have other appointments already at 12. So not taking away the importance of this session we will do our best to basically put across key messages and key points that we in the room here were both policymakers and policy implementers how to go forward. Be as factual, lady and gentlemen. I want to maybe put a bit of context here.

Session one has done a great job for us to go in and basically we can go in to the details. So as we all know a few years ago the United Nations have announced that access to the Internet is a right. The question is not about access to the Internet is going to establish Sustainable Development Goals. It is. If you have the time to ever read a report is UNESCO science report. It is 2015 to 2030, but it was published in 2017, and the key message is the need for technology autonomy. What does it mean? It means for us to progress socioeconomically going forward. We as a nation or as a region need to actually understand technology. We need to know how to work with it. How do we create it. How do we innovate with it, and how do we help each other innovate in order to create new things.

So this particular report by UNESCO is also a very important report. Aside with the developments that, of course, the UN now recognizes that Internet access is -- we don't need

to be specific about rights. It is something that we automatically should consider. So with that, we are looking within the context of community development -- community Internet. So the question here is sustainability. So there are many angles of sustainability. A gentleman from I think the University of Pennsylvania was talking about why is Asia experiencing perhaps more successes than failures. And some of that is going to be discussed here in this session.

And lastly I want to make a point that this is an extremely balanced panel. We have one policymaker and one is a regulator and one is a social scientist and another person is from a policy perspective. So very, very balanced. So I think we can just dive in on this particular issue. So bear with me. We have to change the questions that I was planning because a lot of that was split over from the first session.

So here is the thing, we know that community Internet is important. The network itself is important. It is not an end in itself. How do we with your different experiences and perspectives, how do we move forward beyond access? Beyond connectivity? How do we stop chasing the adoption and growth rate which we talk about penetration, but really at the end of the day when we want to achieve Sustainable Development Goals from your experiences how do we move forward? I will start with the lady at the very end. Dr. Sarbani.

>> SARBANI BANERJEE BELUR: Thank you, Internet Society, for inviting me here to speak on the project that I have been working since the year 2015. So our project has been -- it is call Garm Marg. The project actually focused on technology development, that we worked on -- connecting seven villages solely on TV white space. And the project was actually solely on technology development. We studied -- we moved ahead and we scaled up the project from 7 villages to 25 villages later in the year 2016. And what we find is that and that's where we see the -- started seeding the growth of community networks. The community networks project that we began, I mean first is a part of the 25 village project was a project in which the community network, we set up the infrastructure over there and enable the connectivity to flow in to remote villages. They were completely unconnected. And after that we handed over the infrastructure to the community to take up from there. But initially, so that's a community set of led networks. And currently I'm with the APC community networks.

We are seeding the growth of a community network in one village that is completely unconnected in the foothills. It has hills on three sides. Again in the village, in Harsh, this is a tribal village. So the population size is roughly around 2000 population size and the village has no connectivity. So there

are towers that are there beside the village but the towers are nonoperational. So they get the flicker of mobile signal. And they raise up their mobile phones. Sometimes they have to even travel, go up on hill to make a phone call.

So this is a situation over there. So we are seeding a community network over there through the involvement of the community themselves. So we are working together with the Development Research Foundation in Punai, in Marish. And they have been working in this area for the past 20 years. But most of the projects have fallen -- have gone to a dead end because there is completely no connectivity in these areas. So what we are doing is that we are enabling connectivity through the mobile flicker, for the unstable connectivity that is already there, a little part of the mobile signals. We are trying to set up a cellular network router there. And the community is going to use the connectivity only for e-governance services. They are to walk 20 kilometers to avail of the banking facilities. There are no ATMs over there. We are trying to mobilize this community to work on local knowledge and local languages. That is what -- that is what we are actually focusing on. Where the women in the village, in this village has -- they have a lot of local knowledge, like, for example, seed conservation, paintings, on craft, on their local songs, music, folk songs, music. So these are the things that we are working on. They are going to put up this in the local Internet infrastructure which is an offline center. And work on this for making products which can be sold online. So that the part that is online and offline are a little separate. But eventually it is going to be merged in to one platform.

>> DUANGTHIP CHOMPRANG: It is not looking at access immediately, but rather to look at what they can be empowered to do and basically the technology is just an instrument towards that end.

>> SARBANI BANERJEE BELUR: Yes.

>> DUANGTHIP CHOMPRANG: Very, very good. The next gentleman, what is your experience? Babu?

>> BABU RAM ARYAL: Thank you. I'm Babu Ram Aryal from Nepal. And I was one of the founders of Internet Society Nepal chapter. And we are building Committee networks and centers and other Internet governance research. My engagement was the first immediately after the 2015 earthquake in this kind of community network issue. There was a massive earthquake in Nepal and some of the districts were completely destroyed. More than 80% houses were destroyed. And telecommunication infrastructures were badly affected. Backhaul was there, but access to the Internet and mobile telecom was also not there. With the help of Internet Society global we started to reconnect Nepal in 2015

and that was the time that we realized the importance of the Internet. Basically the mountain area of Nepal was badly affected. And even rescued police personnels who were not able to go to that area because of lack of communication tools and because power was not there. Communication was not there.

So we engaged in that and we also established some temporary hot spot WiFi area connecting backhaul which was not badly affected. And later on we started realizing the importance of this disaster and emergency communication. We had one assessment with the support of the Internet Society itself. We had one research on that. And then we realized the importance of communication and we started setting up some community centers. And we used -- again we used traditional operators backhaul and connected the society.

One of the interesting center was that before the earthquake the whole village was totally destroyed and people were resettling in a new town. They -- there were some around 50, 60 houses brought in a single area and we established one community center there. And we gave some sort of infrastructure as well as we gave some (inaudible) not only connecting is enough, after connection what is there. So we gave some caption building programs to them, how to use, how to maximize e-governance activities. Later on again with -- we had one research Internet Society Nepal and (inaudible) had one research on after access. We found that though there were connectivity in mobile segment, more than 80% people had connectivity. In many ways it is 80 to 90%. Realize that most affected communities is Persons with Disabilities. They have even a health issue disadvantage in employment. Many areas that we identified sustainable goal. But Persons with Disabilities were most marginalized community who use this opportunity.

So we tried to build some tools how these people can bring in to the Ministry of Internet. Now we are trying to build an ecosystem. We are trying to build connectivity of access and these kind of things which could be very useful to address Sustainable Development Goals. Thank you.

>> DUANGTHIP CHOMPRANG: Thank you very much. I think you have put a very good message out there given that Nepal is very unique because of the earthquake. And it was your stress test, if I could say that, with your network. And it clearly sends a message that was beyond. It wasn't about connectivity but it is about how this particular technology can enable people to save lives, resettle as in the post earthquake and more importantly realizing that the people that are most at risk like the disabled people and people who are away from the -- what we call the network itself, how can we build tools around them. So that God forbid if another disaster happened that, you know, that you

are prepared. But it goes beyond that. It is really basically enriching the lives of the people in a way. So that's a good side of the earthquake in a sense if I can put it. Thank you very much. So next we have Mr. Waqas.

>> WAQAS HASSAN: Thank you, Moderator, and also thank the Internet Society for this opportunity. Of course, we all recognize the importance and relevance of SDGs if you want to have a sustainable future. Our project in Pakistan was in a rural village and it was a two phase project. In the first phase, of course, providing access to that village was most important because when it goes somewhere, it, of course, brings benefits. And there are some other parts of the Internet as well that you can look in to. So we partnered with the local ISP who is providing the backhaul facilities and that connection was wired to the village. In addition to the access we provided devices. We provided tabs to the villages and to the community within the village so they can start using it. Others would also be interested to come online and see what they can do. But this project was not restricted to the access part. We took the next step. And we went in to the adoption phase. And in that adoption phase what we did was there was a girls high school in that village. We connected that girls high school and we selected the students from grade 6. And they were provided with a remote education facility, online realtime lectures by teaching, sitting in the federal capital which is Islamabad which is 800 kilometers from that village where this project was implemented. And we taught them with in subjects of English, science and math. And we did a pre and post assessment as well that -- how this difference in the delivery of this education and this course material affects their learning and their ability to understand things more conceptually.

I think when we -- when we got the results back, the post assessment results they were amazing. The students themselves pointed out that now they want -- they want to attend the class. They are more interested, not even interested. They were more excited to be in the class. Their attendance improved. All because the education was already there. But the quality of education and the -- and the program that was being followed that changed drastically for them. The way they can learn, the way they can use their labs, computer lab, when they -- for the first time they had a computer lab but the laptops that were there were covered with different things. Some cloth over it. They are not using it because they said we don't know how to use it. What good is there in it for us? But finally when they actually got learning through this particular model, this was significant Delta that we were able to achieve. But what were the basic lessons that we got out of this? The first one was to

reply to the community network that has to be a role of the government approach. If you go to any part of the country, of course, that is governed by some rules. Governed by some Council, some kind of Government entity.

Our project was more education related. The education office that was working the affairs of the school and we had to talk to them, collaborate with them and we had to get some permission from them to deploy this project. And if not -- they were not being helpful this project would not have been possible.

So the first stake was need the whole of the Government approach. And the second thing and the most important thing is specifically because we are -- that this panel has representatives. Culture sensitivity. Once you go in to a village, especially in our part of the world, you have to take on a certain approach to make the community understand that what you are bringing to them is of benefit to them. When we went in there and for the first time the villages and the head of that village they were very -- we have then this thing on the TV that you know somebody got the Internet and started talking to somebody and took off. We don't want that kind of thing to happen in our village.

When we are sensitive about what we are going to do they agreed to it. And the best thing was once this project was completed, there were people from other villages, nearby villages coming up. I think this is one of the things that when we are deploying community networks we have to be culture sensitive and make sure that we understand that the Internet is safe and secure for them. Thank you.

>> DUANGTHIP CHOMPRANG: Thank you very much. I think a whole lot of points here. The most important one can be the fact that the whole approach in which the Government needs to be supporting the initiatives and naturally, of course, this is all -- it is about technology, but it is about people. But it is how do we customize our approach and every person, every community is very unique and different. And the most important thing I think I can see from this is the innovation that comes when a technology is introduced. In the case here where the school that you have raised as an example, once they are touched by the Internet and what the Internet can deliver which is a different form of education, it changes not just the student, but also the teachers and the education system which innovates. So it is a source of innovation which comes from the human interaction and the acceptance of that technology itself which is something that we don't really talk about. So I think that's -- those are really wonderful things. So it is the Internet bringing the devices and then how do you use that,

that's the more important element of it. Thank you very much. And next we have Mr. Heon-Jun Kim.

>> HEON-JUN KIM: A little bit tricky question for you. I am working for the United Nations agency. We can -- let me rephrase the question because some additional comments to -- to my colleague. We can think about what is the community networks. So I rephrase the terminologies two parts. One thing is physical networks and the other one is the governance networks. So ITU or Internet Society and so on. Expert in the ICT area, they might be focusing on the physical network, physical connection. From the -- from the center to the end or marginalized area in remote area or some island. Where we think about the wide penetration of the Internet to the end or marginalized area we have to think about the -- we have to consider about the not only technology but the contents as well. So the education might be the root content and the Disaster Risk Reduction is one of the contents as well. And also in our -- Professor Christopher Yu, you mentioned how we are going to increase the income of those communities, quite important as well. That's a context to consider the -- in the -- how communication might be working in the future. But nowadays think about the SDGs or some of the development goals. Most or many of the goals related to ICT because ICT is an enabler of the achieving sourcing of development. We cannot separate ICT from the SDG, the Sustainable Development Goals. So that's why the community network might be works for implementing the SDG itself. And also the other -- the parties, the Government's network. Because through using ICT or the community networks, so participating in the local administration in affairs, and also they -- they can participate in the decision-making process of the local as well as the central Government. Sometimes in organizations make -- can be touched from the hand of the local community people. And also they are using the -- those -- bunch of information from the -- in Internet or other in a website, other sources. And then they -- they utilize with those in the or they educate their -- from those information. They exercise the collective intellectuals on the decision-making process as well. In terms of community networks it is not only the network itself. It also exercise on the governance process or governance in the activities.

So in my -- in the observation about the community networks, so the community is a kind of social innovation. So when we are adding up the ICT plus the social innovation, digital social innovation so people can -- the multi-stakeholders can join together and then develop a society together. So when we look upon the -- some of the common differences between the Southeast Asia, Europe, Japan and Korea,

one thing is interesting, like the European country, most of the community networks is formulated by the professional communities or like Human Rights and some aid organization, some economy activity organization, some educational organization. They operate including local community as well. So they formulate operating the networks and then they ask the citizens itself to participate in -- to innovate the society as a whole. In Japanese cases, the -- most of the community network is organized or supported by or sponsored by the local autonomies mainly. I'm not saying 100%. In America most of the Government -- sorry, most of the local or the central Government supported the community network with a corporate. So that's a little bit common symptoms of how the community network is operating and formulated it.

So nowadays when we think about the SDGs, nowadays the community network is quite (inaudible) So it contributes to the local society as well as the national society and in a long-term international society. So we have to utilize those CNs for the -- for achieving SDGs.

>> DUANGTHIP CHOMPRANG: I like the word social innovation. So it is more like a platform bringing people -- the community changes. So it is a transformation side. I think that message is very clear. We always think about community development which is something most development agencies will know and community developments always reflected where the outside is coming in to intervene. When we talk about social innovation, it is a bit more organic. It is internal and interacting with the external forces that come in.

Now digesting what all four panelists have said. The community Internet networks, they are small generally. They are small. Small is beautiful. It is proven to be a social innovator platform. It is proven that it engages and empowers especially minority, women and sorts of disabled people. So now we are talking with the word sustainable now. I don't know from your experiences working on the ground which is the longest community network that you have experienced. And here I mean because we are talking about sustainability, right? So generally there are three ways to measure this, either by how long it has been around and continues to stay around and become -- continue to benefit everyone. Also the financial sustainability aspect of it which is really about monetization and whether community networks can monetize and thirdly is innovation. If we say this community networks are basis for innovation, what sort of innovation model do we think -- if we say sustainability, it is -- it -- it should innovate. It should evolve, right? Or should that be an exit strategy. Maybe it has run its course. And some of us believe in the

technical community, maybe perhaps the community Internet network came as a solution because states don't play that role in reaching out to, you know, groups that aren't -- are not underserved.

So I know a lot of points here, but I guess if you can share with everyone here is how do we define sustainability going forward. Do you see community networks that you have empowered? How would this look like in 2030? And I guess our message is we promoting, we are encouraging community Internet networks. I will start with you.

>> SARBANI BANERJEE BELUR: In our 25 village project that we did, we did address the question of sustainability of connectivity in which we developed the 4 Ps model which is public/private partnership model. It gets the model, has a private entity that means it can be a telecom operator who wants to connect rural India. What are the necessary things that the rural India connect -- connecting rural India needs for a private telecom operator. So we also have the Government, like you know in India we have the pilot net which is bringing the optical fiber which is being laid in India and reach out to the village Councils. So that also comes in to -- plays a role in our partnership model. And the third important thing is the (inaudible) other village Council. It was observed, I did the study of various partnership models and we have seen that the village of a community we are going to connect has not been taken in to account at all. In the sense that because that is where the connectivity is most needed. It is usually public/private partnership models or public/public models based on build transport. So we got in the village Council in the multi-stakeholder model. And this has actually worked a lot. And we have actually validated this model on the field and in our villages, 25 villages.

We saw that it in five years, in five years initially in the first year it will not have a positive return on investment. Because the model is being run by the local ISP and the local ISP is not a telecom operator. So he is not able to take that much bandwidth initially, so much bandwidth and take it to the village and all these villages, but after one year the bandwidth usage increases, and the local ISP starts to procure more bandwidth and distributes the same to the villages. That was the 4 Ps model which was validated in our 25 villages.

The next thing is that sustainability until and unless connectivity is linked up. And what is important is that we really -- what we really tried to identify in our project is that we -- we can't take connectivity and then take digital literacy programs with that because again we have a short duration of time for the project to complete itself. So what we

try to do is identify the skills that are already there amongst the community. Like, for example, someone is wanting -- someone has a skill of painting. These are the private villages that we are committing. So they campaigned. Some craft work or some indigenous craft work they are working on. Some are working on (inaudible) projects.

So what we tried to do is handle the artesians over there and try to handle them so they can come to a platform. A platform which where in they can consult their local knowledge because they have their local knowledge, local language because they don't know English. Their knowledge is conserved in the local language they have. And the third thing they are able to sell these craft paintings and other things online. So that is -- that again comes in to the accessibility model of community. They are something for themselves and especially we are trying to see it amongst women because my women currently don't even as much. Because they don't have the means to own a Smartphone. So slowly they will start owning a Smartphone by themselves and start having mobile data to use it in ways that they want to use it. And the sustainability of connectivity is going to be ensured in the villages. Apart from this we are talking to the tribal department. And the tribal department -- we are actually not talking to the tribal department. These are arts and crafts. These skills that the artesians local people have can be taken online in the tribal department's platform. So the -- we are getting in the local Government, the local village Government in to the connectivity journey as well as tribal department. And then convincing the state Government and the state Government then goes in to the central Government. But currently it is only the local Government and tribal Government that we are engaging with sustainability. So Babu.

>> BABU RAM ARYAL: In our model wherever we deploy our centers with the Internet Society, it is a remote area. And it is really difficult to even go to that area. One of our centers which is in phase 2 societies, we take more than one day traveling by bus from Katmandu and you have to walk as well. In these difficult areas we don't have that much commercial activity. In fact, happiness comes with communication. These centers are basically more for connecting them until ministry rather than more economic activities. We need to develop a second and third phase for economic model. So whatever we did so far, it is only phased to engage them and bringing them in to mainstream that was an important part. And at the beginning we -- we support it for two years. And after that two years we develop some local community and to try to bring other institutions like high school or Government agencies or similar

kind of responsible communities. They have their -- they have their own national setup as well. So bringing for (inaudible) and managing, governing that center was the model that we deployed in our experience.

>> DUANGTHIP CHOMPRANG: Thank you.

>> WAQAS HASSAN: Okay. So I think sustainability it is, of course, linked with economic engine out of that model. But in my opinion sustainability is also about the persistent use of Internet by that community. If that community is using the Internet two years, three years, four years on, that means at least the access and the model was sustainable in its use. If we can't acknowledge the sustainability of the project, particularly, one -- when we deployed this in the first phase, around one year, one and a half years after we started the second phase, we saw that there is actually a telehealth center there. And what they are doing the doctors from the capital or from other big cities they actually are examining patients and prescribing them medicines and tests. And women are coming in because the doctor was a gynecologist. And the other one was a medical specialist in the facilities. And they were charging 10% of the fee that they would charge in their own clinics in the big city. So that was one of the things that we saw which had a big impact on that community and facilities for that community.

Once the community found a solution or an opportunity which was beneficial to them the project sustained itself in a way that knowledge enters its fourth year and it is still there. So my opinion this is how you can bring sustainability to that -- to your project, if you can find particular use cases for the community to use the Internet.

>> DUANGTHIP CHOMPRANG: That's also a very good example. Next, Kim.

>> HEON-JUN KIM: Yes. Sustainability. Let me rephrase it again as a profit. Medical service can be a good example as well. But sometimes the participation means in a participation -- participation of the vulnerable groups, for example. Young and youth and women and elderly persons. They can participate in this decision-making process of local community and they get some benefit from them. So the need and demand can be reflected in a -- in the society can be of benefit as well. And also in that -- that means, you know, a sound and equal development of the whole society. They can be a good benefit in the long term. So we think about the sustainability in terms of economic perspectives, maybe the profit on the revenue as not up to you to mention that. And then the economic or social development of the society can induce long-term sustainability of the community networks.

>> DUANGTHIP CHOMPRANG: Yes. Okay. So it is my job to kind of now kind of put it together, but also I think if I were to put my impression on what our four excellent speakers have mentioned, I think there is one word that can put this all together, the aim is really about creating well-being and how well-being is defined depends on the community, on this specific Government and local Government, of course, as a nation. And I think one thing that has been a strong movement right now because of the SDG 2030 is looking beyond GDP and it is to look at measures and indicators that look at how, for instance, a very good example of the fact that we are talking about community networks is that it is a small -- you could say it is very compact and wholistic if you like experiment which, of course, has gone beyond the experiment, but we can see how a community with the interaction like technology has evolved. And a lot of the things that have been raised by our speakers, for instance, our -- the first one from Dr. Sarbani is looking at 25 villages and coming up with these model, 4 Ps. It is about multi-stakeholder and engaging with everyone, measuring the fact that bandwidth demand is a good indicator of -- in the long term if the particular community itself, the engagement of the village Council here making sure the local IXP actually survives and delivering that's a very consistent measure that the persistent use of the Internet is saying that it is a viable technology. And it continues to empower the community itself.

Of course, it needs to link with income, what's connectivity if not with the power for villages and the community to be economically dependent and sufficient in their own respect. It is not about covering or trying to attempt to educate through, you know, what we call digital skill literacy that we tend to hear in all of the policy papers, but being selective of what the skills that empower them immediately.

So a good example of the artesian was it good to show that evolution of an artesian in a world around start using the Internet and interacts with the digital world where he owns his living and how does his livelihood improve. They can use a Smartphone and go everywhere to interact with the world and the subscription is mobile data, it needs to be affordable. You see that evolution of a person who is able to move and be empowered by that and connecting the Federal Government through the tribal department is a very good example.

Babu said we need to move beyond stage 1 of connectivity and go in to -- again it basically repeats what the first speaker is mentioning and Waqas is saying that besides persistent use of the Internet itself it is a good measure is also how they are using the Internet itself. And in the case of telehealth, that means that basically improving their lives and

telehealth addresses access to health services but especially for women where, of course, through technology is always easier. Also addressing the quality of the consumption, not just massive bandwidth. And last but not least with Kim is yes, we will eventually need to talk about monetization which is it needs to be profitable, but again it is not about being profit driven per se by the bigger picture is to be sustainable is about well-being and we need to kind of define that in that respect.

So I think our -- unless -- I am going to give you maybe a moment here for our panels to -- if you would like to interject or to add from my brief summation if you'd like. And then I'll open the floor for the audience. And any comments? All right. We will just go to the floor.

>> From Asia. I'm interested in learning like how your business models are sustainable models adaptive to shocks. Let me try and elaborate through an example. There was a community that we work with, not necessarily community networks, agriculture community. And when there was a drought all the members they went to the city to find other work. So that -- the entire user base shifted and no income being generated in that local area. So how does -- how do shocks like that impact the sustainability? Are there any studies being done? I'd like to hear your thoughts.

>> SARBANI BANERJEE BELUR: So in our model, the 4 Ps model we have taken in to account users because the local ISP, the important question that was asked local ISP and take it to the village, and these villages and, in ten villages am I ensured that I will be able to use this 20 (inaudible) of bandwidth in these villages for one year and get the amount that I have paid for the 20 mbps of bandwidth to the telecom operator. This was a question that was posed by the local ISP to me. So what I told him, I sat with him and I went to the villages and I tried to identify three different types. So like, for example, I go to my villages and I authenticate through my other card and then get bandwidth. I pay and I get the bandwidth for usage of three days. Okay?

Now there are certain such villages, because certain people coming in to the village or a day or two and going back. That's a sporadic user. Now there is another type of user. That user is a particular user that comes during the festivals. So when most of the people in the village, they go to the city to work, so many of them have migrated and they have a house in these villages and they come back and then they are there during the festivals. So increase in bandwidth at that point in time.

And the third one is returning user. So the user is every month during the local ISP or particular brand amount every month. And if the services are good then the local ISP can

charge even more and the user is ready to pay. So we have taken these three user bases as three scenarios who understand that the local ISP should not be a crisis, if he is procuring 20 mbps at the end of the one month nothing is utilized. He was juggling between these three types of users but he has saved some amount of bandwidth because the total -- if it is (inaudible) festival season, then he channelizes it in to the village. And otherwise he is just keeping it and he is trying to do some small business in a particular village that is feasible. Like, for example, his own village where he has a cable -- he has a cyber cafe. So he was using it over there, but other times he was like sort of channelizing it in a proper manner so he can (inaudible) So this one was the -- in the business model.

>> BABU RAM ARYAL: Using the Internet itself is a business model. Not necessarily that person in using the Internet itself is a business model. For example, just to -- 40 minutes ago, 45 minutes ago my mom who is not knowledgeable about English language she just clicked my photo and called me on Vibr and I had a brief chat with her. People are using the Internet like this for various purposes. Then itself is a business model. It is not necessary to have so-and-so e-commerce activity. It is not like that. Plain use of Internet is a business model. Thank you.

>> Hi. Almost good afternoon. My name is Ieko. I am from the social development division of ESCAP working on disability issues. This is my first time to be in this meeting. So I'm very happy that I'm here. And so I'm still kind of learning what this regional community networks is all about. If you allow me to share a few thoughts I will be happy to do so.

No. 1 is I feel that inclusivity and sustainability is really closely interlinked as all of you already demonstrated through your examples. My work on positive promoting disability inclusion, the previous sector people such as Tim Cook who is the CEO of Apple says inclusive product design is already a mainstream part of our -- what you call it -- business. It is not like okay, we need -- we should not forget about all these people. It is not that kind -- it is not forcing as an afterthought. So I think it is very important for us to think about, you know, including concerns of Persons with Disabilities, women who are impoverished in rural communities when we talk about connectivity. When we talk about connectivity but it is also usability and accessibility. So in that -- along that line, I also feel -- I'm sorry, I am really not quite sure about this whole setup of this ISOC, but it will be good for the next occasion. We invite the stakeholders and we talk about and we see what's happening at the end of that

kind of meeting.

Another thing that I think about I know that in Europe there is a directive and a law that also mandates barrier free and accessible ICT projects and services if a company wants to sell and produce products in the market. There is rural driven business initiatives already taking place in the EU single market. If we think about the market size, okay, Asia-Pacific has a larger market than Europe and other companies from Asia-Pacific which must already be working in the EU which is producing accessible ICT products and services. And I am raising this as an example of an initiative already taking place in terms of no one left behind but it is not an afterthought. It is the main, main part, core part of the business. But that's one way of promoting inclusive ICT. There should be more local based activities as well. But anyway I'm happy to be here. And we would like to be in touch with all of you. Thank you. Rj.

>> My name is Salma. I have two points to consider. One is from I think the point yesterday regarding people with disabilities. And I want to share something from the African context is to creative access to ATMs which is wheelchair unfriendly. We created a partnership with banks who is creating an accessible, fully accessible bank and ATMs. And this is an interesting way to drive inclusion and competition through private sector who is going to the first bank this way.

The second is those doors. You can't get a wheelchair in the rotating doors now securely. Even me as a person I get hit on either side. There is -- we have to think differently out of the box. And the second point is to my colleague from India with your case study, some examples from India and Pakistan, show when you bring in the private sector who has a vested interest to the area village, when I say private sector I mean multiple sectors because we seem to focus on one. If we keep enough framework the idea of the SDGs then you can have the medical suppliers, agriculture suppliers, the artists, the transportation logistics. It is easy to do when you build a needs based model because it is always someone who wants to get to the community and always someone who wants to get things out of the community. And that's to the earlier presentation from the colleague from Nepal, he said needs based. Without doing something that's needs based it is pointless without having a need even if it is calling a mother on a phone that's a need. Thank you.

>> I have a question from both the two participants from Nepal and India who have given examples of community networks. What is the reaction or what is the -- what is the idea from the regulators, respective regulators? Do they interfere? Do they

ask you neural networks to get licenses from him or do they just stay away and let the networks develop? Is it a supportive role or is it restrictive? Or I don't care. It is too small anyway?

>> SARBANI BANERJEE BELUR: Yeah. So the TV rights-based one was through an experimental license we had applied. And we got it only for a year's duration and after that expiratory we were not allowed to put up our devices. We have a prototype ready for us. We can't put it up. So we are working on a -- on unlicensed man, 5.8 and 2.4 gigahertz is the unlicensed. Currently there are no regulatory compliances that we have to do for the community network because now it is only within the domain of enabling connectivity to them and getting their services online. So there is absolutely nothing in between. So that would literally -- literal aspect we are not facing currently.

>> Regulatory interventions where -- before modern, already mentioned some of the incidents that he had faced when he started these things. In Nepal we have a rural ISP concept and the license fee of rural ISP is less than one U.S. \$1. In that case we don't have that kind of regulatory problems these days which was already settled more than a decade ago. Thanks.

>> HEON-JUN KIM: This project where we are discussing about the regulatory, Pakistan regulatory authority. It was a support partner in this project. It helped a lot. Because a Government, a Federal Government entity was part of the project. They thought that it is a -- pretty safe if this project goes on and there is someone to bank on to from the federation. So -- kind of goes back to the -- the same point where you need the whole of the government approach to make Pakistan use all community networks. And this thing actually has been -- has been linked with what the two ladies were referring to about the Persons with Disabilities. So enablement or digital empowerment of the Persons with Disabilities is part of the digital Pakistan policy has been approved last year. And now the Internet Society is going to take on more steps ahead and going to make the Government websites, top ten Government websites accessible for Persons with Disabilities in Pakistan and working with the national information technology board which basically takes care of the Government websites. And again the Ministry of IT and national -- the government entity which deals with these websites is helpful and supportive of this project. This probably could be a good example of how the Government can come forward and support such initiatives.

>> DUANGTHIP CHOMPRANG: I have to take one last question. So I will give it to the gentleman, Osama.

>> Yeah. And so I don't know if it is a question. But I just wanted to say that, you know, on one side I want to make a

slightly dangerous statement, there is no future of community networks because if there will be no community what will you do with the network. The point most of the time the economic system is breaking to the community. The community we are trying to address lives in remote areas who -- various kind of opportunity to leave. So unless the network reaches them earlier than the migratory opportunity, there is no future of the community networks. That's No. 1.

No. 2, the way we see the Internet shutdowns, what will be the view of the Internet if it is shutdown, it will be seen, censored and community networks makes very, very futuristic sense because if the Internet is down at least you can talk to each other. Because if you make yourself dependent so much on backhaul and Internet, that means you are not even willing to talk to each other. So from the -- we need to look at this network from the perspective of how we link it to the developmental, emphasize and the requirement of the local community, linked to the services. Make it more or less based on technology, still the entire community networks like it is a techie's job. It is not a job of the community or a job of the barefooters. It is important how we simplify the technology to the level of EPA excess term or telephone system. And that's the challenge that you in the last ten years that we started doing with the help of ISOC and other people.

What we learned why 10, 15 networks that we created many were shut down and came saying that half a dollar a month and I give you all the data. First layer of remoteness is now over. The last level of remoteness is left because today when I am accessing Internet I want to access not the Internet, just a few social media and with mobile. So we need to really figure it out, that how do we take community networks and that's the way we should work on it. To safeguard the community, to take the community networks to the community before anything else goes there. Thanks.

>> DUANGTHIP CHOMPRANG: It is not at all a good controversial statement. I think that's the rate statement. It is about autonomy. And here is the ability of the community to determine for themselves what is best for them and, of course, the continuity of the way of life and improvement of life. But as a woman if you allow me I would like to allow the lady sitting next to Osama, she raised her hand to share her thoughts.

>> Okay. Thank you, everyone. I think I just wanted to -- my name is Ritu. And I had worked with Osama for eight years. I want to give an answer to the gentleman who asked about the issues in India. In India it is a scenario it is very different. Sometimes it is a don't care policy from the

Government. Sometimes it is a do care policy from the government. Sometimes that regulatory has noticed community networks are available and wide -- and connected last mile. But at the same time because of telecom lobbies is so high that we are not seen as a viable model at the same time. But these models are also referred by the various other people, like any other people. Those who are trying to connect those models are also there.

One of the examples that we do have mobile virtual operating system which allows us to reach out to -- get the license in a low bandwidth and get the -- regional, unconnected regions actually. So as per the availability framework we have to go far in India. There are some of the things that T wide spectrum or other spectrum bands are still not delicensed and these are going in to the telcos and operator sections actually.

>> DUANGTHIP CHOMPRANG: Thank you very much. It is a very poly recommendation there which is very good. I -- I think the -- I think -- I'm going to give the opportunity now to each of our panelists to give me their final words. A key message that you like to leave for our audience here, something that they can take home and hopefully implement. I will start with our lady at the very end.

>> SARBANI BANERJEE BELUR: According to me community networks should be the work of the community. It should be by the community for the community. It is -- we can make some interventions, technology interventions, but eventually it has to be by the community for the community. In the sense they have this -- their needs should be addressed and that connectivity is a connectivity that can enable the lives, empower their lives. That's something that I would like to say.

>> If we can build some aggregate use of Internet in community, then only we can make that community networks successful. Just bringing access is not sufficient. So we have to think about appropriate access. Thank you.

>> WAQAS HASSAN: I think we probably need more outage about the community networks. We need access to -- people need affordable devices to connect to the network. People need content. Safe and secure network. Many of these things that fall in to the domain of government, allow this Internet, attach free community network would do. I think unless we have more outage and we involve the Government in these process more, I think this could be a good thought.

>> HEON-JUN KIM: Local innovation at the community level, by the community network has been linked to and further promote social economic development, innovation at the national level and global level as well. To keep community network at the local level is strong for achieving in the global and universal

SDG goals and targets.

>> DUANGTHIP CHOMPRANG: With that I would like to express my appreciation personally as your Moderator for I think you are a very impressive panel and not because I am a Moderator here but extremely enlightened panelists. And we have the benefit from learning from their experiences. Approach them if you have any further questions. I express my thanks to Rajnesh and Imed and for the ISOC society for allowing me to be here. And lastly I like to also express my thanks to all of the audience here for, you know, staying late after the time that we have been allocated. Thank you very much.

(Applause)