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Plenary 2: Community Networks and SDGs

(rough transcript – alternate version)

>> MODERATOR: Thank you to our panel. Again, we would like to conduct a survey related to the discussion that just took place. So for this last survey, we would like to see what your thoughts are on this. There are opportunities for innovative licensing, spectrum and public funding approaches to bridge last mile connectivity gaps via solutions like community networks.
     (Break)
>> MODERATOR: The second plenary is on community networks and Sustainable Development Goals. Our speakers for this session is Mr. Heon-Jun Kim, the senior programme management expert at the UN Project Office on Governance and we have Mr. Babu Ram Aryal, founding member of the Internet Society in Nepal. And we have Dr. Sarbani Banerjee Belur, senior research scientist of broadband project in India, and we also have Mr. Waqas Hassan, who is the President of the Islamabad chapter of ISOC in Pakistan. And to moderate this discussion is Ms. Duangthip Chomprang, the Director of the Office of International Cooperation, International Institute for Development. So our next session will deliberate on how community networks can play a role in supporting socioeconomic development and the UN SDG's. Let us welcome our speakers our panelists and we shall begin.
>> DUANGTHIP CHOMPRANG: 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 12:00. We will do our best do put across key messages and points that we in the room are both policy makers and implementers to go forward. So be as factual and truthful. So first I want to put, maybe put a bit of context. Session one has done a great job, so for us to go into the details, as we know, a few years ago, the United Nations have announced that access to the Internet is a right.
     So I guess the question here is not about connectivity and access to the Internet is not going to address Sustainable Development Goals, it is. Basically it's a fact. Another interesting report if you have the time to read is the UNESCO science report, it's 2015-2030 but was actually publish in 2017. The key message from that especially in Asia-Pacific is the need for technology autonomy and the what does that mean. It means for us to progress economically to go forward in a technology

enabled society or economic systems. 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 and help each other innovate in order to create new things.

This particular report by UNESCO is also a very important report. AE the UN recognizes that Internet access is, we don't need to speak about rights, it is. It's something we automatically should consider. So we are looking within the context of community Internet. So the question is sustainability. So there are many angles of sustainability. A gentleman from university is talking why is Asia experiencing successes and then failures. Some of that will be discussed here in this session. Lastly I want to make a point that this is an extremely balanced panel. We have one policy maker, one is a regulator, one is a social scientist, and another person is a former policy perspective, so very, very balanced so we can dive in on this particular issue.

We have to change the questions that we were planning because a lot of it was spilled over from the first session. 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. We talk about penetration, but 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 end, Dr. Sarbani.

>> SARBANI BANERJEE BELUR: Thank you for inviting me here. Our project is called the Road to the Village, and we have been working on this project since the year 2012. Initially the private focused on technology development. We worked on the space connecting seven villages, and the project was actually solely on technology development. We slowly moved ahead and we scaled up the project from seven to 25 villages later in the year 2016, and what we find is that, and that's where we started seeing the bulk of community networks. The community networks project that we began, I mean, it was part of the 25 village project.

It was a project in which the community network, we set up the infrastructure over there, enabled the connectivity to flow into these remote villages. These villages were not covered at all. So they were completely unconnected, and after that we handed over the network, the infrastructure to the community to take up from there.

But initially, so that was a community network, and currently I'm with the APC community networks learning grant. We

are seeing the bulk of community network in one village completely unconnected in the foothills. It's has hills on three sides. This is a tribal village. So the population size is roughly around 2,000 population size, and had the village has no connectivity. So there are towers that are there beside the village, but the towers are non-functional, non-operational. So they get a clicker and sometimes they have to travel, go up on the hill to make a phone call.

So this is the situation with them. So we are seeing the community network over there, through the involvement of the community themselves, so the community is currently has been working on agriculture, so we are working together with the development research foundation. And they have been working in this area for the past 20 years but most of the projects have fallen or have gone to a deadend because there is completely no connectivity into these areas so what we are doing is enabling connectivity through the mobile flicker, through the unstable connectivity that is already there, a little part of the mobile signals. We are trying to set up a network over there, and it they are using it for E-governance services. They have to walk 20-kilometers to avail of the banking facilities. There are no ATMs over there.

What we are trying to do is mobilize this community to work on local knowledge and local languages, that is what we are focusing on. The men be and the women in this village, they have a lot of local knowledge, like, for example, seed conservation, paintings, craft, on their local songs, music, folk songs, music, stories so these are the things they are working on. They are going to put this in the local Internet infrastructure, which is an offline centre and work on this for making projects which can be sold online, so the part that is online and offline are a little separate, but eventually it's going to be merged into one platform.

>> DUANGTHIP CHOMPRANG: So basically it's not looking at access immediately, but rather to look at what they can be empowered to do, and basically the technology is an instrument toward that end. The next gentleman, what is your experience Babu.

>> BABU RAM ARYAL: I was founder of Internet Society Nepal, and we have been engaging community networks, community centers and other Internet Governance related issues. My engagement was the first immediately.

Telecommunication were badly affected. Back haul was there, but access to the Internet and mobile telecom was not there. So with the help of Internet Society global, we started reconnecting in the city, reconnecting Nepal in the city. That was the time that we realized the importance of Internet.

Basically mountain area of Nepal was badly affected and even rescue police, personnel were not able to go to there because of lack of tools and because of power was not there, communication was not there. So we engaged in that, and we also established some temporary hot spot connecting back haul areas not badly affected.

Later on we started realizing the importance of this disaster and emergency committees. We had the support of the society itself, we had one on that, and then we realized the importance of communication and we start setting up some community centers, and we use, again, we used traditional operators back haul and connected the society.

One of the interesting centre was because of earthquake, the whole village was totally destroyed, and people were resettling in new towns. There were some around 50, 60 houses bought in a single area, and we established one community centre there and we gave some, not only connecting is enough, after connection what is there? So we gave some programmes to them, how to use, how to maximize E-governance activities. Later on, again we had results in Internet Society Nepal, we found that the connectivity in mobile segment more than 80% people had connectivity. Those subscribers are more than 100%, but in meaningful way 80% to 90%. So we again realized that most effective community is persons with disabilities.

They have, even in health issues, they are disadvantaged, in implementation they are disadvantaged. In many areas that our persons with disabilities were most marginalized community who used this opportunity. So we tried to build some terms how these people can bring in the management of Internet. So we are trying to build ecosystem, we are trying to build connectivity of access and these kinds of things which could be very useful to address such sustainable development. Thank you.

>> DUANTHIP CHOMPRANG: Thank you very much, Babu. You have put a very good message given that Nepal is unique because of the earthquake and it was your stress test, if I could say that, with your network, and it clearly sent a message that was beyond, it wasn't about connectivity alone. It's really 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 far flung aways from what we call the network itself, how can we build tools around them so that God forbid another disaster happened that you are prepared.

But it goes beyond that. It's really basically enriching the lives of people in a way. So that's the good side of the earthquake in a sense. If I can put it -- thank you very much, Babu. Next we have, Mr. Waqas Hassan.

>> WAQAS HASSAN: Of course, we all recognize the importance of SDGs if you want to have sustainable future. Our project in Pakistan was in a rural village. It was a two phase project.

In the first phase, of course, providing access to the village was most important because the Internet goes somewhere, it brings benefits and there are other parts of the Internet. So we partnered with the ISP who was providing back haul facilities in that connection to the village. But in addition to the access we provided devices, we provided to the villages and Government people in the villages so they can start using it. And seeing them use the Internet around these devices, others would be interested to come online and see what they can do.

But this project was not the access part. We took the next step and we went into adoption phase and in the 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 audience from grade 6, and they were provided with remote education facility, online real time video lectures by teachers sitting in the federal capital, which is Islamabad, which is like 800-kilometers away from the village where this project was being implemented.

And we taught them in subjects of English, science and Math, and we had a pre and a post-assessment as well how the difference in the delivering ever this Ted indication 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 children, they themselves pointed out that now they want to attend the class, they are more interested, not eastbound interested, in fact, they were more excited to be in the class. The attendance improved, the learning ability, the learning ability improved and it was all because the education was already there, but the quality of education and the pedagogy being followed, that changed drastically for them.

And the way they can learn, the way they could use the lab, they can do the lab, and when they were there for the first time, they are doing the lab, but the stops there were covered with different things, there was cloth over it, they were not using it because they said we don't know how to use it, and what good is there in it for us?

But finally when they actually got learning for this particular model, there was significant delta that we were able to achieve. But what were the basic lessons we got out of this whole project?

The first one was to apply a community network, it has to be a rural Government approach. If you go to any part of the country that is governed by some losses, that is governed by some

Council, that is governed by some kind of Government entity. Our pilot was more education. There was an education office that was overlooking the affairs of the school, and we had to talk to them, collaborate with them, get permission from them to deploy the project, and if it was not, if they were not being helpful, this project would not have been possible.

So the first take away was, of course, we know the whole of the Government approach. The second and most important thing especially because we are, this panel has representatives is culture sensitivity. Once you go into a village, especially in our part of the world, you have to be really cordial, you have to take on a person approach to make the community understand that what you are bringing to them is of benefit to them.

When we went in there for the first time, the villages and the head of that village, they said we are seeing this thing on the TV that somebody got the Internet, and then they started talking to somebody, and then, so we don't want that kind of thing to happen in our village. But then when we sensitize them about what we are actually 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 saying when are you going to do this in our village.

So I think when we are deploying these networks we have to be culture sensitive and we have to make sure they understand that the Internet is safe and secure for them. Thank you.

>> DUANTHIP CHOMPRANG: Thank you very much, Waqas. I think a whole lot of points here. The most important one being the fact that the whole approach, right, in which the Government needs to be supporting the initiatives and naturally, of course, this is, although it's about technology, really it's about people, so it's about how do we customize our approach, and every person, every community is very unique and different.

But 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 be it 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's 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's, the Internet bringing the devices and then how do you use that, that's the more important element of it. Thank you very much, Waqas. Next we have Mr. Kim.

>> HEON-JUN KIM: A question for me because I am working

with the international society, with 20 years of experience as a
Government employee. You can let me rephrase the question
because additional comment to my colleague. So I rephrase, one
is the network and the other is the Government networks. So like
ITU, Internet Society and the experts in the ICT area, they might
be focusing on the physical network, physical connection. They
must be marginalized area or remote area or some island.

When we think about the wide penetration of the Internet in
the marginalized area, we have to think about, we have to
consider about not only the technology, the contents as well, so
the education and the contents, the DRR, the disaster risk
reduction is one of the contents as well.

And also like the Professor, you mentioned how are we going
to increase the income of those communities. That is a context
to consider the, how communication likely works in the future,
but nowadays, as we think about the SDGs, Sustainable Development
Goals, most or many of the goals relate to the ICT because ICT is
an enabler of the development. So we cannot separate from the
ICT. We cannot separate ICT from the SDG, Sustainable
Development Goals.

So that's why the community network might work for the SDG
itself. And also the Government's network, because through using
ICT or the community networks, so as soon as they are
participating in local administration, in affairs, and also they
can participate in the decision-making process of the local as
well as the central Government. Sometimes international, the
organisations can be -- from the hand of the local community
people.

They are using the, the bunch of information from the
Internets or other website, the other sources, and then they
utilizing those in or they educated from those information. They
exercise the collective intellectual decision making process as
well. So in terms of the community networks, it's not only the
network itself. It also exercises on the governance process or
governance activities.

So in the observation about the community networks, the
community is kind of social innovation. So when we are adding up
the ICT plus social innovation, we can say that digital social
innovations. So people can join the governance process, so not
only people, the multistakeholders can join together and then
develop a society together. So the look upon, you know, the
common differences between the Southeast Asia, Europe, Japan,
Korea and other countries, one thing is interesting.

Like the European countries, most of the community networks
is formulated by the professional communities or human rights and
aid organisations, some economic activity organisations, they
operate including in the local community as well. So they

formulate and operate in the networks, and then they ask the citizen itself to innovate the society as a whole. And Japanese cases, you know, most of the network, like Korea, most of the network is used or sponsored by the local economies mainly. I'm not saying 100%.

In America most of the Government, I'm sorry, most of the local or the central Government supported the community network with corporate. So this is a little bit, you know, common symptoms of how the community network is operating and formulating. So new there is, when we think about the SDGs, nowadays, the community network is quite essential.

So it contributes the local society as well as national society, and in the long term international society. So we have to utilize those CNs for achieving SDGs.

>> DUANTHIP CHOMPRANG: I like the word social innovation. So it's more like a platform bringing people together to innovate. Basically people change, the community changes, so it's a transformation, so I think that message is very clear, and so also we always think about community development, which is something most development agencies will know, and community development is always reflected where outsiders come in and intervene, but when we are talking about social innovation it's more organic in the sense it's internal as well as interacting with the external force that comes in. So that's a very rich perspective, and I think that's very important.

So now to the digesting what all of the four panelists have said, all right, community networks they are small generally, right, they are small, so small is beautiful. It's proven to be a social innovator platform. It's proven that it engaged, empowers especially minority like women and also disabled people.

We will talk about the word sustainable. 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 were talking about sustainability, right. So generally there are three ways to actually measure this, either by how long it's been around and continues to stay around and become, you know, continue to benefit everyone, but, two, it's also the financial sustainability aspect of it, which is really about monetization and whether community networks can monetize and how would we look at this?

And thirdly, of course, is innovation. If we say this community internetworks the basis for innovation, so what sort of innovation model if we say sustainability, it's, it should innovate, it should evolve, or should that be an exit strategy? So maybe it has run its course. And some of us believe, at least in the technical community, that maybe the community network came as a solution because states don't play that role in reaching out

to, you know, groups that are not underserved.

So I know there are 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, you know, how would this look like in 2030? I mean, and I guess our message here is we are promoting, we are encouraging compliant Internet networks, right? We will start with you.

>> So we did address the question of sustainability in which we developed a public private partnership model which was focusing on the multistakeholder model which gets into the, gets, the model has a private entity that means it can be a telecom operator who wants to connect rural India, but whatever necessary things that the rural India connectivity, connecting rural India needs for a private telecom operator.

So we also have the Government, like you know, in India, we have the Parliament, which is being, the optical fiber which is being laid in India and reaching out to the village councils. So that also plays a role in our partnership model, and the third important thing is village Council.

It was observed, the various partnership models, and we have seen that the village or the community we are going to connect has not been taken into account at all. In the sense of that is where the connectivity is most needed it is public-private partnership models or public models. So we got the village Council in the multistakeholder model. And this helped a lot, and it elevated this model. The model is being done by the OISP Telecom operator. So he is not able to take that much bandwidth, initially so much bandwidth and take it to the village and all of these villages. Bandwidth usage increases in which the telecom, the local ISE starts to appear more bandwidth. So that was the 4P model that was validated in villages.

The next thing what we found out is that sustainability cannot be brought in. What is important is that (Garbled audio)

In a short duration of time for the project to complete itself. So what we would like to do is identify the things that are already in the community. Different centers, someone has the skill of painting, these are the private villages that we are implementing, so they can paint.

(garbled audio) Broken language, so they don't know English, their knowledge is conserved in the local language that she have, and the third thing is whether they can extend these crafts online. So what is that model of the community? Especially among women, because women don't own as much. They don't have the means to own as much. So slowly they will start owning a Smart Phone by themselves, they will start having mobile data to use it in ways that they want to use it, and the ability

is going to be increased.

(Garbled audio)

The local Government, the local village Government as well as the private Government. The state Government goes into the Government.

>> DUANTHIP CHOMPRANG: I will wrap up when you are all finished. I need to save time. Yes, Babu.

>> BABU RAM ARYAL: In our model, wherever we deployed centers, it's remote area, and it's very difficult to even go to that area. One of our centers, which is the Internet phase 2 site is, it takes more than one day traveling by bus from Kathmandu, and we have to walk as well. So in this typical areas that we don't have that much commercial activity. In fact, happiness comes with communication. So these centers are basically more for connecting them in ministry rather than more economic activities.

We need to develop a second and third phase for economic modeling. So this, whatever we did so far, it will the early phase to engage them and bringing them into the ministry that was important part, and then at the beginning, we supervised or we supported for two years, and after that two years, we developed some local community and we tried to bring other institutions like high school or Government agencies or similar kind of investment units, they have their one organized well. So bringing more stakeholders in managing, in governing the centers was the model we deployed in that experience.

>> DUANTHIP CHOMPRANG: Thank you.

>> WAQAS HASSAN: If the community is using the Internet, two years, three years, four years, that means at least the access and the model was sustainable.

When we deployed this in the first phase around one half year back we started the second phase, we went to the area and we saw that there is a telehealth centre there, and what they are doing is the doctors from the capital or other big cities, they actually are examining and prescribing tests over video link. And the women are coming in because the doctor, one was gynecologist and that one was medical specialist who were in the facilities, and they were charging almost 10% of the fee that they would, that they were actually charging in their own big city.

So that was one of the things that we saw which was a big impact on that community. So once the community found a solution or opportunity, the project self-sustain itself in that now it's into the fourth year and it's still there. So in my opinion, this is how you can manage sustainability to your project if you can find particular use cases for the community to use the Internet.

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

>> HEON-JUN KIM: Yes, sustainability. Let me rephrase it
again as profit and participation. So profit to all people in
the community. So the medical service can be good as well, but
sometimes the participation means, you know, participation of the
vulnerable groups, for example, like young and youth, and the
women and elderly persons. They can participate in the decision
making process of the local community and they get some benefit
from them.

So take the need and demand can be reflected to the society
can be of benefit as well. And also that means the sound and
equal development of the whole society. It can be of good
benefit in the long term. So when we think about the
sustainability in the terms of the economic perspectives, it may
be the profit on the revenue, as you mentioned that, and the
next, economic development or social development of the society
can be can induce long term sustainability of the community
networks.

>> DUANTHIP CHOMPRANG: Yes. So it's my job to kind of now
kind of put it together, but also, I think if I would put my
impression on the four excellent speakers I have mentioned, I
think there is one word that can put this together. The aim is
about creating well-being, and how well-being is defined will
depend on the community, on the 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 SDG2030 is looking beyond GDP and it's 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's a small, you could say it's a very compact
and holistic, if you like, experiment which, of course, it's gone
beyond experiment where we can actually 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, the
first one from Dr. Sarbani is looking at 25 villages and coming
up with the four Ps, it's about multistakeholder, it's about
engaging with everyone, measuring the fact that bandwidth demand
is a good indicator in the long term if the particular community,
the engagement of the village Council, making sure the local ISP
survives and is thriving because that's a how consistent measure
as mentioned by Waqas that the persistent use of the Internet is
seeing that it's a viable technology and continues to empower the
community itself.

Of course, it needs to be linked with income, what's
connectivity if not with the power for villages and the community
itself to self-define themselves and to be economically

independent and sufficient in their own respect. Very important
message also was the fact that it's not about covering or trying
to attempt to educate through, you know, what we call digital
skill literacy but being selective in the skills that can empower
immediately.

A good example of the Artisan was very good to show that the
evolution of an Artisan in an analog role and then starts using
the Internet and interacts with the digital world where he owns
his living and how does his livelihood improve. He now can use a
Smart Phone and his subscription, mobile data needs to be
affordable, so you see an evolution of a person who is able to
move and be empowered by that, and connecting the federal
Government through the tribal department, I think, is a very good
example.

Babu mentioned about, yes, we need to move beyond stage one
of connectivity and go into some sort of economic model that is
viable. So, again, I think it basically repeats what the first
speaker was mentioning, and Waqas was saying that besides
persistent use of the Internet itself as a good measure is also
how they are using the Internet itself.

In the case of telehealth, that means this is basically
improving their lives, and telehealth itself addresses access to
health services, but especially for women where, of course,
through technology it's always easier. So it's also addressing
the quality of the consumption, not just massive bandwidth and
the ability to be connected alone. And last but not least, we
will eventually need to talk about monetization, which is it
needs to be profitable, but it's not about it being
profit-driven, per se, but the bigger picture to be sustainable
is about well-being and we need to define that in that respect.

So I will give you a moment here for our panel to, if you
would like to interject or to add from my brief summation, if you
like, and then I will open the floor for the audience. Any
comments? All right. We will just go to the floor.

>> AUDIENCE: I'm interested in learning how your business
models are sustainable models adaptive to shocks? Let me
elaborate through an example. There was a community we work
with, not necessarily on community networks, agriculture
community, and when there was a drought, all of the members, they
went to the city to find other work.

So the entire user base shifted, and there was no income
being generated in that local area. How does, how do shocks like
that impact the sustainability? Are there any studies being
done? I would like to hear your thoughts?

>> SARBANI BANERJEE BELUR: The person question being asked
by the local ISP, if I secure bandwidth and take it to these
villages, in ten villages, for example, am I ensured that I will

be able to use this 20 BPS bandwidth in these villages for one year and get the amount that I have spared for the 20 BPS of bandwidth to the telecom operator. This was a question posed by the local ISP to me.

What I told him, I sat with him and I went to the village and tried to identify three different types of users for him one was a user that was a sporadic user. So I got my villages and I authenticate, and then get the bandwidth, I pay and I get the bandwidth for usage of three days. Now, there are certain such villages, because certain people coming into the village for a day or two and going back.

That is a sporadic user. Now, there is another type of user that the user is a particular user that comes during those festivals. So when most of the people in the village, they go to the city and work. Many have migrated. They have houses in these villages. They come back and they are there during festivals so there is a spurt, so there is increase in bandwidth during that time.

And the third one is returning user, so that user is every month giving the local ISP a particular band amount every month, and in the services sector then the local ISP can charge more and the user is ready to pay.

So we have taken these three user bases as three scenarios to understand that the local ISP should not be at all crisis, in the sense he should not be if he is procuring 20 BPS, at the end of one once nothing was utilized. So he procured the 20 BPS bandwidth but he had saved some amount of bandwidth because if it is the festival season, then he channels it into 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, he has a cyber cafe of his own.

So he was using it over there, but other times he was channelizing it in a proper manner. So this one was in the business model.

>> BABU RAM ARYAL: Using Internet itself as a business model, for example, 45 minutes ago, my mom, who is not knowledgeable about English language, she clicked my photo and she called me, and I just had a brief chat with her. So it's people are using Internet like this for various purpose.

That itself is a business model. It's not necessary to have so and so E-commerce activity. It's not like that. Plain use of Internet is a business model. Thank you.

>> AUDIENCE: Good afternoon. My name is Aiko Akiyama, 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. But if you allow me to share a few thoughts, I will be happy to do so.

Number one is I feel that inclusivity and sustainability are really closely interlinked as all of you already demonstrated through your examples. From my work on promoting disability inclusion, the private sector people such as Tim Cook, who is the CEO of the Apple says inclusive design is already a mainstream part of our business. It's not like, okay, we should not forget about all of these people.

It's not that kind. It is not processed as an afterthought. So I think it's very important for us to think about including concerns of persons with disabilities, women who are impoverished in rural communities when we talk about connectivity.

And when we talk about connectivity, it's not only technical connectability, connectivity, but it's also usability and accessibility. So in that, along that line, I also feel, I'm sorry, I'm really not quite sure about this whole setup of this ISOC, but it will be good for the next occasion we invite all of the stakeholders that we are talking about, and then let's see what is happening at the end of that kind of meeting.

Other thing that I think about is I know that in EuroDIG there is a directive and law that mandates barrier-free and accessible ICT products and services if company wants to sell and produce products in the market.

So there is a business or what do you call it, a different 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 EU and a lot of companies from Asia and Pacific must be already working in the EU which is producing accessible ICT products and services. So I'm just raising this as a sort of example of initiative already taking place in terms of no one left behind, but it's not the afterthought no one left behind. It's the main part, core part of the business.

But that's one way of promoting inclusivity. Of course, there should be more local-based activities as well, but I'm happy to be here. And I like to be in touch with all of you guys. Thank you.

>> AUDIENCE: Thank you very much, my name is Salma Abbasi. I have two possibilities to consider, one is from the point yesterday regarding people with disabilities, and I want to share something from the African context., and that is to create inclusive financial inclusion and access to ATMs which are wheelchair unfriendly. They don't have the ledge where you can come close. Question have actually created a partnership with banks called petition within banks who is really creating an accessible fully accessible bank and ATMs. This is an interesting way to drive inclusion and competition through

private sector who is going to have the same, the first bank this way.

The second is those doors you can't get a wheelchair in the rotating doors. Even me as a person, I get hit on either side. So we have to think differently out of the box of what the drivers are. And the second point is to my colleague from India with your case study. I think that was very interesting look at livelihoods.

Some examples show that when you bring in private sector who have a vested interest to the region, to the area, to the village, when I say private sector, I mean multiple sectors, because we seem to focus on one, but if we keep in our framework the idea of the SDGs, then you can have the medical suppliers, the agricultural suppliers, the artists, the transportation logistics. This is easy to do when you build a needs-based model because there is always someone who wants to get to the community, and there is always someone who wants to get things out of the community.

That's, to the earlier presentation from the colleague from Nepal, he said needs-based. To me, without doing something that's needs based, it's absolutely pointless without having a need, even if it's calling your mother on the phone. That's a need. Thank you.

>> AUDIENCE: I have a question from two participants from Nepal and India who have given examples of community matrix, which is the reaction or what is the, what is the idea from the regulators, respective regulators? Do they interfere? Do they ask you your networks to get licenses from them? 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: One was license, and after expiry of regulation we were not able to put up our devices even though we had made advances for the UX devices that want put it up. So we are working on unlicensed 5.28 and 4.2 gigahertz is the non-licensed band. There are no regulatory compliances that we have to follow 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 regulatory aspect, we are not facing it currently.

>> BABU RAM ARYAL: Later on now, also in Nepal, we have rural ISP concept, and the license fee of rural ISP is less than one U.S. dollar. So in that case, we have that kind of regulatory problems these days, which was already set out as more than a decade ago. Thanks.

>> I know this question was intended for Nepal and India, but just an example, the project we were discussing about

communication authority as a partner in this project, and that helped a lot especially when we had to get the approval or the permit from the education office, because the federal Government entity was part of the project. They actually were able, they are safe if the project goes on and they have somebody to bank onto from the federation. So it goes back to the same point where you need the whole of the Government approach to make back users of the community networks.

   And this thing has, what the two ladies are referring to about the persons with disabilities. So the implement or the digital empowerment of the persons with disabilities is part of the policies which has been approved last year. And now Internet Society is going to make top end Government websites accessible for persons with disabilities in Pakistan, and they are working with the national information technology board which basically takes care of the Government websites.

   And, again, the Ministry of IP and national, the Government entity which deals with these websites has been helpful and supportive of this project. So I think this is where the public would be an example of how the Government can come forward and support such initiatives.

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

   >> AUDIENCE: Yes, 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 statement that there is no future of community networks, because if there will be no community, what will you do with the network?

   The point is most of the time all of our economic system and sustainability system is so breaking to the community because they migrate. And the community here that we are trying to address lives in remote areas whom we are dealing with jobs and all of that and various kind of opportunity to leave. So unless the network reaches them earlier than the migratory opportunity, there is no future of community networks. That is number one.

   Number two is that the way that we see the Internet shutdowns, what will you do with Internet if it is shutdowns, because it will be regulated, seen, censored, so on, so forth, and, therefore, community networks make futuristic sense because if the Internet is down, at least you can talk to each other.

   If you make yourself dependent so much on back haul and Internet, that means you are not willing to talk to each other if it is totally censored. We need to look at this network from the perspective of how we link it to the developmental indices and the requirement of the local community, link it to the services, make it more, you know, less based on technology.

   Still the entire community network looks like it's a job,

it's not a job of the community, or job of the bare footers and the people, so it's very, very important how do we simplify the technology to the level of the EPX system or the telephone system so that they adopt and manage and run on their own.

And that is the challenge in the last ten years that we started doing with the many people, the network, what we learned is like 10, 15 networks we created many got shut down. So the first layer of remoteness is over. Now, the last level of remoteness is left, because today when I am accessing Internet, I'm accessing, want to access not just Internet, just view social media which is extremely toxic and with mobile.

So we need to figure it out how do we take community networks and that's the way we should work on it. We want to safeguard the community, to take the community networks to the community before anything else goes there. Thanks.

>> DUANTHIP CHOMPRANG: It's not at all a controversial statement. I think that's the right statement. It's really about autonomy and here is the ability to determine for themselves what is best for them and, of course, the continuity of the improvement of life. As a woman, if you allow me, I would like to allow the lady sitting next to Osama. She raised her hand just now, yes, to share her thoughts.

>> AUDIENCE: Thank you, everyone. My name is Ritu and I had worked with Osama for years in the community networks and I wanted to give the answer to the gentleman who asked about regulatory issues in end gentleman. In India. Names it's a no care policy and sometimes a do care policy. There are indices, there are sometimes that the community networks have a program and sustainable model to connect the last mile, but at time, because of telecom lobbies, it's so high that we are not seen as a rival model at the same time.

But these models are also, they are referred by various other people. Those who are trying to connect to those models. One of the examples that we do have virtual network operating system which allows us to reach out to get the license and low bandwidth and get the unconnected regions actually.

So as for the regulatory framework, we have to go far away in India. There are some of the things that the spectrum or another spectrum bands are still not delicensed, and these are going into the operator sections actually.

>> DUANTHIP CHOMPRANG: Thank you very much. It's policy recommendation which is very good. I think, 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 would like to leave for our audience here, something that they can take home and hopefully implement it. I will start with our lady at the very end.

>> According to me community networks should be the work of the community. It should be by the community for the community. We can make some interventions, technology interventions, but eventually it has to be by the community for the community. In the sense that they have to, their needs should be addressed and the connectivity should be connectivity that can enable lives, that can empower the lives. So that is something that I would like to see.

>> If we can build some aggregated use of Internet in community, then only we can make that community network accessible, just bringing access is not sufficient. So we have to think about access. Thank you.

>> I think we will need outreach and people need affordable devices to connect to the network, people need content, they need safe and secure Internet, many of the things that fall into the, maybe a tax-free community network would do. So I think unless we have more outreach and we involve the Government in this process more, I think this could be a thought.

>> Local innovation at the community level, first by the community network can be interlinked to and the socioeconomical development. In this regard, it is important to keep in mind that the effort with the community network at the local level is a decision taken in stone for achieving the global and the universal SDG goals and targets.

Thank you.

>> DUANTHIP CHOMPRANG: I think with that, I would like to express my appreciation personally as your moderator. I think you are a very impressive panel, not because I am a moderator here, but extremely enlightened panelists, and I think all of us have the benefit of learning from their experiences and I think they are all hands on experts here, and, of course, please do approach them personally if you have any further questions. With that I would like to also express my thanks to Rajneesh and the ISOC Internet Society for allowing me to be part of this important meeting and also to the ESCAP team, the ICDRR team who has been strongly promoting these initiatives on the ground, and lastly, I would 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)