REGIONAL WORKSHOP REPORT[1]

The workshop is conducted in two days, 7-8 September 2007, with venue Room Pandawa, Grand Mercure Hotel, Yogyakarta, Indonesia.

1. PARTICIPANTS

The expected participants are from ASEAN member countries, each with two representatives: (1) the relevant institution and (2) the project task force. The expected participants were also from ITU and related organizations. From 10 member countries, Singapore, Laos PDR and Brunei Darussalam cancel their participation due to technical difficulties. Myanmar sent one representative and the other sent their full participants. The full lists of participants are as follow:

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[1] **Disclaimer**: This publication has been produced with the assistance of the ASEAN-JAPAN Cooperation Fund. The contents of this publication is the sole responsibility of PUSTRAL and in no way be taken reflect views of the ASEAN nor Government of Japan.

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2. GENERAL FINDINGS

Some general findings in Workshop:

1. Some countries like Cambodia still in the process of forming, formulating the policy, and still have some challenges in internal system (like budgeting mechanism). Cambodia looks for an independent USO fund system. The system adopted in Myanmar, uses one single operator (Myanmar Pos and Telecommunication), and gives services in telecommunication, communication, postal, and telegraph also. The other systems in Thailand, do not oblige the operator to implement USO, but the provision can be "pay or play". It's the obligation for all telecom enterprises in Vietnam to implement USO through VTF. Meanwhile system in Indonesia is using term obligation, so that all operator should oblige to implement USO. In the case of Malaysia the USP scheme reflects the government's social obligation to bridge the digital divide between the urban and rural economies by obliging the service providers to contribute to the USP Fund hence discharging its corporate social responsibility.
2. The implementation of the telecommunication project is influenced by many factors. To overcome this, the legal aspects or the regulation of the project has to put in the fix position before anything else. This also has to regulate the institution that is able to play roles in conducting the telecommunication project. However, some findings show that regulatory process does not necessarily happen before the implementation process.
3. From the system understood in Indonesia, the input should be clear what the specification, the quality and the quantity is. Secondly, they have to have the context especially for regional autonomy because based on the regulation, the local government at the moment has an opportunity, has an authority to regulate almost all of things that implemented on the local level. Secondly, it is the supporting institution. Private sectors at the central level, regional level, and then local level are encouraged doing participation at the implementation of the project as well as NGO.
4. There are common move on ICT development from 'regulatory conformance' to 'development performance' and from 'dependent/sectoral' to 'interdependent/multi sectoral'.
5. Development of the policy would have to be driven by the evolution of the technology it self. But being the regulator, most of the time, it's hard to keep the technology neutral. The trend of the technology development should be flexibly followed by regulation.
6. There are strong indication that policy for providing Broadband access in rural area is very important for providing the opportunity for rural people to produce information and take more role in information society. There is finding that the higher benefit goes to producer of information than user of information.
7. There a need to have a specific website containing information on technology development in ASEAN that can be treated as reference for interested parties. As of the technical guidelines, the information could be presented in PIU website.
8. At some countries, USO and USP are new activities so that training program, study from best practice in developed country to enhancing the program are still needed. There is also a need to learn from the experiences of developed countries, e.g. Korea, in applying IPv6 technology, thus, AMCs could find ways to apply such practices.
9. Local community should be included in the equipments' maintenance i.e. women and youth. To do so, there's a need to develop a short training/briefing for the said group.

3. SUMMARY OF DISCUSSION

A. Technology Option, Finding and Solutions

During discussion, there are some important issues had been discussed and concluded, those are:

1. USO Scheme and USO Definition, Lesson Learnt from Visits

   In the case study of Malaysia and Indonesia, it found that the definition is a bit different; there is "obligation" and "provision". Following is discussion about the rationale for implementing the USO scheme and the definition of USO-Obligation/USP-Provision. Other issues are funding management, and tender mechanism, and observation on the incentive is for the bidders and how the subsidy should go and some of the tender principles.

2. The rationale of implementing definition of USO-Obligation/USP-Provision

   In case of Indonesia, the reason for using term of "obligation" related the history of rural telecommunication provision. Since, the only operator at that time is only the incumbent today; they were obliged to do it as part of the network. But afterwards, there's a competition where are so many operators exist. When the competition exist, it is difficult to ask operators to build something that is not commercially viable. Therefore government decided to have all contributed and the contribution is used for USO fund.

   The government managed USO fund. The government has the authority to set the priority, to define the place that more important to build. To maintain efficiency, a tender scheme for selecting the operator has been conducted to provide some degree of competition.

   And Indonesia is actually moved from 'play' to 'pay' because Indonesia is previously implemented the direct investment in rural area so it means 'play' the 20 % investment in the rural area, but since it was not work very well because they kept the investment in the urban area, now it's going to 'pay' with 0.75% of Gross Revenue.

   In the case of Malaysia, the underlying reason to institute the scheme as a continuity of USO. The main reason being is the underlying philosophy of both from the government perspective and the service operator perspective. From the service operator perspective the expected commercial viability limits the operator to deploy in the rural and underserved.

   However the government must be thinking that there must be some mechanism to impose on operator to discharge their CSR (Corporate Social Responsibility). This mechanism leads to definition of USP.

   On the other hand, there's also the government perspective, of rolling out services to the rural and underserved being government obligatory role to make it happen in the rural. The subsequent logical impact on this approach, CSR, leads into USP scheme in such a way that the government wants to implicate the service providers through means of imposing the scope of works to deliver and to provide the services to end user.

   In terms of the philosophy, the USP or the words "provisioning" gives more emphasize and liberate more on the corporate social responsibility that needs to be discharged from the operator for the benefit of realizing the social obligation roles of the government. It's a dual aspect of the involvement.

   Basically, that is the rationale of implementing USP term. In addition, the licensing framework of the Malaysian government under the Communication and Multimedia Act allows for an open entry into the structure by which to offer imposing all licensees, except, the broadcaster to contribute. Therefore to pay compulsorily then they will be allowed to recommend the best approach in rolling out the service provisioning in the USP target area through tender bidding.

There is no more imposing to a particular company, and no longer impose rather severe key performance indicator on them to satisfy the expectation. But rather, opening up through self regulation approach, again, the CSR to the service providers.

In Indonesia conducted in villages with no telephone access, in Malaysia, conducted in areas under 20 percent served. In Indonesia conducting scheme for performance based contract actually like pay the service system, the government pay the service form the operator and then from Malaysia, use USP scheme of no gain no loss.

There is some incentives scheme for the bidders. Indonesia prepares incentive scheme in license, the fixed wireless access that is 2.3 GHz and, and also profit margin, in Indonesia, the incentive scheme is about 10-20 percent profit margin is eligible. And also the revenue, because in the near future, the implementation of the USO is using scheme of net contract, with the revenue goes to the operator.

In Malaysia, actually the incentives are capital to the infrastructure investment and USP claims right in designated area. When an operator win a contract, not a contract actually but USP job, they will be allowed to implement in area in which they have very strong POP and those areas that authority award to them will be identified as designated area. There are very significant plan for that particular area, however there is no exclusivity since the regulation gives the freedom of any other provider beside that designated provider to also bid for the tender, additionally the USP scheme has moved forward into internet connectivity, broadband, etc.

3. Issues on Power Supply in Rural Area

   The problem on the power in the rural areas:

   a. Off grid: required alternative power for rural telecom facility (last mile and backhaul); the solution may depend on the location, the geographical features: generator set, micro hydro, solar energy etc.

   b. On grid: unstable supply, voltage is fluctuating; it's not very reliable for providing power for Hybrid Technology (Satellite Backhaul and Microwave BTS for IP Based Technology).

4. Future Expectation for Rural Internet Service:

   From field visit in Malaysia and Indonesia, has been found demand for internet service in rural area. Other identified specifications raised during discussion were:

   a. Services requirement: Provided by 256 kb/s which will offer, voice, data, internet as well as e-health, e-education

   b. Technology used: IP network, NGN, WiFi, WiMAX,

5. Problems found during field visit on IP Based in NGN for Rural

   a. Volatile IP setting: IP setting in the handset is very easy to change even by unskilled person, because it is opened (unprotected).

   b. Static IP Setting: Required static IP setting in the system devour the IP availability. Since the IP address is very limited, therefore it should be dynamic. Hence, user based numbering system is essential to be implemented in the future.

   c. Power supply at end user: Because some of the users in the village do not understand how it works, when they do not use this equipment, they just plug off the power, so the computer or the handset was shut down and in the central they cannot recognize whether the equipment is still on, off, or broken.

   d. Cabling configuration: Because the cables from the antenna and for the handset are similar, due to lack of technical skill or unintentional action, a cabling miss-configuration is existed in rural area.

6. Interconnection and Numbering Issues for USO and IP technology

In general, in the telecommunication regulation, telecom network providers are obliged to interconnect with the other provider's network. The dominant operators has to declare the term, condition and tariff of the interconnection.

Currently, the telecom numbering is following ITU numbering E.164 hierarchy, the country is divided into:

a. For geographical – divides into many area codes

   Numbering: (country code) (area code) (phone number)

b. For non-geographical (mobile), every operators has different access code

   Numbering: (country code) (phone number, which already inc. access code)

For IP numbering is following ICANN and usually is not coordinated by Regulator.

The question should be address is, for the new network using the IP-network, how could we ensure the interconnection to the other operators; IP to telco network?

The possible numbering solution is a combine effort, introduce by IETF, ENUM – Telephone Number Mapping – which make possible that the IP-network connected to the telco numbering by mapping the telco numbering into DNS.

There is possibility for issuing the IP-network with fixed-network provision, and getting block number from E.164 system numbering, however it is important to provide the point for interconnection, since usually they will have only one exchange (could be in the form of soft-switch).

7. Limited Resources of IP Addresses for NGN

Definitely some other countries would like to look at rural NGN, Myanmar, in particular how to expand at the same time implement NGN based infrastructure that was support multi services coverage network. So this wonderful approach must due to the fact that the multi service coverage network that we plan to implement in Lawas, near to Sabah border, the IP based would require some enhancement for the existing 2.5 based network to support MSCN (multi service coverage network).

On the issues of resources, authority have the introduction of the NGN, most of the rural CPE (Customer Premise Equipment) would be IP tech. However, everybody actually facing global crisis on IP-4 allocation.

In Indonesia, the association of an internet provider service develop IP6 tool two years ago in partnership with DG Postel. IP6 is today implemented and embedded in local exchange and national exchange. Operator integration to IP6 should apply IP 6 to the association (APJI is the internet provider association in Indonesia) to get to address the allocation.

In the last mile, the provider provides service to rural with an integration of IP4 gateway to IP6. Currently, the IP6 is still on trial. In the test bed in Yogyakarta to Kebumen area, the IP6 works well.

The AMC is recommended for acquiring more IP addresses, especially IP 6. Regional collaboration might be established with Japan and Korea for addressing this issue. With lack of IP Address, the end user cannot be benefited from this approach.

8. Capacity issue of NGN for low density village

The capacity issue will affect infrastructure layout with regards to topology wise for NGN. The important issue on the capacity of NGN is the availability of the MPLS structure to support the soft switching of the toll and traffic and how do these contribute to the some form of integration to the rural level. Because as far as the MPLS is concerned, it is most likely to be implemented in high density area, where tally density is very high because of this capacity issues and as far as today, it is hardly found any localized MPLS implemented in rural level which is for the small scale.

9. NGN, IP Based and Wireless Trend and New Approach for Planning

Future trend on implementation of NGN, IP based network and wireless system require resources to be managed, e.g. numbering, IP address, radio frequency.

Hence, the physical network is not becoming not very important issue, because lot of hybrid tech could be implemented. But the issue is how we can manage all of these resources.

The issue is therefore moving from "network planning" into "resources based management" approach, this new approach will influence the policy recommendation for USO development in the near future.

10. Rural NGN Application and Impact an Example on Education Sector

Possible NGN for USO application as integrated solution for all stakeholders, by example in rural area in Yogyakarta especially in Gunung Kidul, partnership between operators, government, and educational institution promote significant growth of internet to school as learning center for the society. A junior high school in Karangmojo, Gunung Kidul in 2004 accredited as local school, in 2007 has been accredited to international school with the support of the rural NGN service.

11. IP-6 Compliance and roll out progress for NGN for Rural

The roll out progress for NGN requires ample application on the IP addresses that only can loop into very progressive. This is a crucial issue to be address, because for the next generation network, the important issue is not about the infra layout, but the ability of the community to be uplifted in terms of their socio economic pedigree, as well as their accessibility options to the network itself and some entrepreneurial scheme to be introduced to those people which are require them to have more access to other IP based knowledge information.

It is important to develop the sustainability model for rural community, given rural access more IP based solution. To stand on its own, the rural NGN solutions require complimentary activities from the user side. The sustainable model also should be based on IP technology, hence the requirement of IP to be widely available to rural people.

It is critical for focusing on that problem because of limited IP available and not that many apparatus can be target with IP, mostly the urban sector requires. Currently almost above 95% allocation is over and above the existing saturation point. The call probably on countries that develop the IP 6, like Japan and Korea, they maybe consider more allocation of IPv6 to developed countries especially for AMC – Asean Member Countries, since we will be very much depleted in terms of existing IP resources.

B. Policy, Regulation, Technology and Social Acceptance in USO Programs During discussion, there are some important issues had been discussed and concluded, those are:

1. Brief Information on ASEAN Region Commitment on USO Development

With regards to policy formulation on USO, there is some relevant background of ASEAN Region commitment on USO development:

a. The Declaration of ASEAN Concord II (Bali Concord II): the broad outlines for economic integration

b. The Vientiane Action Plan or VAP 2004-2010

c. The ASEAN ICT focus of 2005-2010

d. Tau-Project Endorsement on 4th working group on Universal Access and Digital Divide and e-government, on 21 September 2005

e. The Siem Reap Declaration on Enhancing Universal Access of ICT Services in ASEAN: "ICT Reaching out to the Rural"

2. Input for USO Policy Recommendation

Several discussions regarding policy formulation for USO program are as follows:

a. No Gain No Loss Principle

b. Impact of No Gain No Loss principles

c. Options for USO Contract Scheme

d. Importance of Clear Definition of USP Criteria and Indicators

e. The social acceptance for USO program and ICT agenda

f. Local Support and its impacts on USO program

3. No Gain No Loss Principle

During presentation and discussion, the ***"No Gain and No Loss"*** principle had become subject to discussion. The principle is related to financing policy, funding mechanism, and incentive scheme for bidding.

According to Malaysia, the term "***No Gain no Loss"*** is not a plain term on its own, but it has direct implication on the cost. It is understandable as a generic term, however to be implemented in certain country, it is important to understand the whole concept and the entail structure of the cost.

In case of Malaysia, the "***No Gain no Loss"***, it is relate to the cost, the net USP cost, and for areas, being the USP target, this concept will be applicable because the net USP cost will be in such a way positive, when the affordable cost is higher than the revenue for gone.

Under "***No Gain no Loss"*** principle; the incentive for operator is coverage or network expansion. The operators who won the bidding and implement the USO/USP have benefit more or less in terms of the network expansion. Regarding the gain for the financial position for operating OPEX they maybe suffer some time.

There is an observation, that with "***No Gain no Loss"*** principle there should be a punitive measure to the operators. In the case of Cambodia, they implement 'payment measure' under trenches payment. For the deployment, the authority holds up some amount to be disbursed after certain roll out progress.

Possible implication of "***No Gain no Loss"*** is the government policy in the different countries will impose regulation to retain revenue. However adopting the concept of "***No Gain no Loss"*** should consider the whole system since USP and USO in many countries has the same platform but had different methodology of approach.

It is important for carefully look in detail for adoption of the no gain no loss in certain country. In wish that the approach that may represent the principle of no gain no loss but on operational aspect of it, the implemented costing structure might not reflect the principles.

Hence, it is important for us to understand what happened in other country and the definition of certain terminology to avoid misleading information to others. There is a suggestion that in the final report, the term no gain no loss, pay or play schemes would deserve a certain boxes to define clearly in terms of cost and revenue and what implication does it give to both the operator and the government.

The available information on this principle is important to give ideas how to better the implementation in each country. But it doesn't mean that if a country implemented it, then other country must do the same.

4. Impact of No Gain No Loss principles

During field visit, it had been found some impact on No Gain No Loss principle on selection of suitable technology. There is an observation on potential disadvantageous impact.

Since the No Gain No Loss principle is close to definition of Gross Cost Contract, where the financial risk is not managed by operator, there is a fact that some important

consideration for cost effective technology selection by the operator had been overlooked.

In the case of Papar Village, an Hybrid IP Technology, with VSAT Backhaul and Microwave Radio that require high density village and LOS (line of sight) had been deployed in very hilly area. The impact of this technology selection is an additional cost for maintain the LOS due to covering leaves of trees that have been growing on around the antenna and the slope of the hilly terrain. Another problem is the idle capacity of the system due to the terrain limitations. From 500 lines capacity offered in first step, only 40 lines that had been deployed.

In fact, the technology implemented in Papar works perfectly, however the technology should be considered to be placed in flat and higher population density area.

With regards to this issue, there are some clarifications from Malaysia:

a. Technology Neutral Principle

   Upon the bidding of the service provider, Malaysia service provider proposed a roll out plan and a subscription of project forecast. MCMC policy being technology neutral, the authority does not impose any technology, but they must if possible take care of the sustainability of the project. Hence, a clause in the policy to include punitive measures should be imposed to any noncompliance.

b. CSR (Corporate Social Responsibility)

   No gain no loss policy impose certain requirement from the service providers. The word no gain means like scare them off, because it is almost inapplicable.

And in the current USO scheme service provider must look in the area where it is economically viable for them to roll out with best measure to reduce cost. We have to understand the economic scale, in country having underserved area; it should be target even if in the urban area itself. Whereby, the USO scheme may work as a direct solution to that, but when you go into the scheme which favor the most remote part of the population, you have to stick them go there, and impose your authority and be clear to them that there is no gain to be expected.

If the USO scheme aims to reduce the gap between urban and non-urban, the no gain no loss might be able to be adopted further. However, in certain country maybe the "no gain no loss" will not be attractive to service providers.

Very strong appreciation of this approach is required for any local service provider to encourage them to participate. In certain countries, with no incentives to roll out service even in the semi-urban area, we will face difficulties.

The problem or the issue is not regarding the formulation of no-gain-no-loss, but on the derivation of the principles into action that can be implemented in local levels. Hence, good understanding on such principle may be able to generate a good idea for the central level of the government in order to encourage private sectors to be involved in the telecommunication project. It is not only the normative things, but also the operational one in order to implement it in the local level.

5. Options for USO Contract Scheme

Even tough some countries does not implement contract scheme with USO/USP operator, there was discussion on schemes of the contract namely "Gross Cost Contract" and "Net Cost Contract":

a. "Gross cost contract" means that all of the production cost (CAPEX and OPEX) for implementing the service will be covered by the fund, or the authority. Therefore, the revenue goes to the authority and the risk is on government side.

b. "Net cost contract" means that part of the production cost (CAPEX and or OPEX) for implementing the service will be covered by the fund, or the authority. The rest of the cost will be covered by revenue collected by operator. Therefore, the

revenue goes to the operator and the operator manage the financial risk if the revenue insufficient to cover the cost.

In the USO/USP facility, there is uncertainty in revenue. In Indonesia it is difficult for the government or authority to collect the revenue, therefore the option is "Net Cost Contract". In Malaysia, all the revenue goes to MCMC (as revenue for gone), so it close to Gross Cost Contract.

There is an observation from Malaysia regarding those contract schemes. There is no "Gross Cost" in terms of USP Malaysia. The structures of the major costing template to design a project are CAPEX (Capital Expenditure) and OPEX (Operational Expenditure). Malaysia implements a single cost, that is the net USP cost equals to affordable cost minus the revenue for gone.

The disbursement mechanism in Malaysia is USP claim. The service operator can claim, declaring the affordable cost that they had spent to provide service and also reporting the revenue that they had acquired.

Some example of affordable cost is the incremental cost of capital over the lifetime of the equipment for providing service (e.g. the switching, CPE, links, interface for link connection, building cabin, towers, other CAPEX).

The revenue for gone is the service revenue (e.g. from the connection fee they imposed on others, rental fee of infrastructure, call charges from the rural users, interconnection cost received from other provider; call revenue from rural users, and revenue for public payphone).

The net revenue cost, or the difference between that affordable cost and the revenue for gone is become an indicator to qualify whether a USP area is relevant or not. If the affordable cost supersede this revenue for gone, it means that USP target remain relevant. In the case it became more economic; the cost will be lower than the revenue for gone submitted by the service operator. Therefore, the government will stop USP in this kind of cases.

6. Importance of Clear Definition of USP Criteria and Indicators

During field visit in Malaysia there was a discussion on the USP criteria for defining the "green area", is underserved area, which is 20% below the national penetration rate based on fixed line. So even if there is new deployment with GSM technology, statistically speaking, there is no growth on penetration rate.

In the discussion there was a clarification on penetration rate indicator in Malaysia. In Malaysia, the fixed line indicator relates to DEL – Direct Exchange Line, so it's not fixed line or fixed service per se. For example, as incumbent operator on DEL fixed line services, Telcom Malaysia do have certain territorial coverage in Malaysia. The descriptions about 20% below the national fixed line services refer to fixed line are made available through DEL. Hence, the discussion on indicator with fixed line would not be mixed with the variance of the fixed services, in particular, the fixed cellular services, which is in fact not one fixed wired, but using on interface wireless medium transmission. For our definition on underserved area, they are solely based on the 20% below national penetration rate on DEL.

In case of Indonesia, one village one phone is the minimum service for USO. Currently only one public payphone will be subsidized. The subsidy only covers access provision not included the usage. The eligible area is village with no phone (un-served) and also perhaps in the area where there is a village covered by cellular but there is no public phone available (under-served). Currently, the biggest operator in Indonesia has claimed that their coverage has been 95 % of the population. With this situation, existing wireless or mobile phone will be able to provide service in USO target area. With very small efforts, they can extend their cellular network. Therefore in the near future USO deployment will work on wireless technology.

Learning from above situation, there is a finding that the definition on USO program and stated performance indicator will affect the program and available technology options that potentially can be implemented.

7. The social acceptance for USO program and ICT agenda

   Other finding on rural telecommunication is problem of maintenance. The problems actually exist in local level due to the higher telecommunication technology. Hence, only few people can fix any problem of the equipment or expanding the utilization of the equipment. It is one of challenging issue in the process of implementation and the management system. There is urgent need to educate people, women especially, to use and work with IT. Women are potential group of people that supposed to take care or maintain the equipment develop the system to make it work. Involvement of village youth organization for manage USO facility is also an advantage.

   In rural area, placement of USO facilities influences level of traffic. There is a case, in certain villages, the head of the village place the USO phone in his house, due to cultural and privacy issue, the usage of the equipment decreases. The recommended location for USO phone is at a place close to social and economy activities.

   In some country, USO program focuses on infrastructure. However there is important need for content development with respect to rural context. The content is very important especially customized for local use.

8. Local Support and its impacts on USO program

   Some issues regarding local government participation in implementing the project have been found. The local level of participation is variance depend on the country situation. Commonly, the USO program is national government programs therefore the plans or the scheme generated by national government. During implementation, involvement of local parties or local government exists (e.g. the carrier must request for the permit to local government). Therefore during the formulation of the USO, consultations with the local official should be conducted.

   One of the roles of local government is provision of land and basic infrastructure. In Sabah and Sarawak there is policy for improving the role of the local government for providing the land and tower. From the perspective of the operator, even they did not complain, under this policy the deployment of new infrastructure is a bit slowly compared with the previous system since they could put tower anywhere. Nevertheless they believe that in the future it will be easier. In addition, the advantage of this policy is ability to avoid vandalism.

   There is a need on the commitment of the local government to develop good telecom governance in local level; e.g. how to provide human resources to run the project. This involvement potentially will be able to avoid vandalism or local conflict due to inequality of access, capability and job opportunity in telecom sectors.

   A good indication of positive impacts of USO program in local level has been found in Kampong Beliung (Malaysia). There are three ethnics of Malay, Chinese and indigenous people and they able to develop social solidarity among them. The USO facility has been enable to help them to facilitate the social solidarity.

C. Technical Guidelines and Policy Recommendation

During discussion, several issues had been discussed and concluded, those are:

1. Issue on Policy Recommendation

   In the discussion issue on progress of the policy formulation had been offered to the floor. It is include the policy making aspects (e.g. USO fund collection, storage, determining player/provider, policy on the monitoring and evaluation, technology choice, ownership of the asset) and also the process of formulation. Also several challenging issues have been discussed.

The discussion is very important for understanding the concerns of AMC on USO program. The identified concerns can be put in the report to observe the solution to the similar problems in other countries.

Several issues have been developed during discussion:

a. Establishment of USO Fund

b. Important factor for policy formulation on USO and community development

c. USO development framework: Input, Context, and Expected Outcome

d. Policy Migration on USO Program

e. Consequences of Policy Trend and USO Policy Development in AMC

2. Establishment of USO Fund

Importance of establishment of USO is common interest of most AMC. Each countries has different level of USO Fund Development, some country relies on Government Budget. Cambodia is one of the country that still is in the process of forming, formulating the policy. Some challenging issues are the regulatory framework regarding the internal proceeding and the problem of the maintaining the USO fund. The problem on USO fund related with the constitution which mention that all the revenue has to go to the Ministry of Finance. One of the main concerns in USO program is establishment of an independent fund devoted for the USO development. Learning from other countries there is fact that disbursing the USO fund is extremely challenging. Set of policies, laws, inter-sector regulations and guidelines should be prepared in advance to ensure proper disbursement of USO fund.

3. Important factor for policy formulation on USO and community development

Issue on policy formulation is very challenging because the implementation of the telecommunication project is not going in a vacuum space. It is influenced by many factors. Some of suggestion on important aspect should be considered:

a. Legal aspects of the implementation of the project

Set of regulations is required to address possible conflict of interest among the central government, the provincial government, district or city government, and also people of the local level.

b. The institutional setting

Establishment of an institution is required to play roles in conducting the telecommunication project for example USO fund collection, storage and deployment.

c. The human resources management

The human resources with capability to run the implementation of the project is imperative with also give provide the opportunity for local people to involve in the implementation.

d. Funding

Fund resources should be established to be able to keep the sustainability of project development.

e. Monitoring and evaluation system.

Performance indicators of the implementation of the project should be evaluated.

Above issues are necessary to provide environment for of people in condition with security, certainty and safety. Those are important factors for strong foundation of the community development for gaining the benefit of community development.

4. USO development framework: Input, Context, and Expected Outcome

With the example of Indonesian context the elaboration of the USO development frame work has been discussed.

a. The input

The input should be clear regarding the specification, the quality and the quantity. In term of USO program and planning, one of important input is technology option that should be able to perform in various context and maintain the expected outcome of the program.

b. The context

Decentralized context: Especially for regional autonomy because based on the regulation, the local government at the moment has an opportunity, has an authority to regulate almost all of things that implemented on the local level.

The supporting institution context: Private sectors at the central level, regional level, and then local level are encouraged to do participation at the implementation of the project.

NGO may also be involved as part of local government and local organization participation (e.g. woman education in IT).

Governance Reform: Especially in Indonesia, when we do have the reformation, everything can be criticized, everything can be put in new way, they constructed in their own interests. Governance issues and it reforms is one of the challenges for USO project implementation.

c. Outcome

Equality for the service: It has to consider the demand based on the social class, religion, ethnicity, ideology, based on the income class: upper, middle and lower class and also other social group, that may grown up at the local level to ensure equality of the service.

5. Policy Migration on USO Program

With regard to policy formulation there is an observation on policy trend:

a. From organizing the regulatory conformance to development performance

USO program not only focusing in providing the infrastructure, but also moves from organizing regulatory performance to development performance. The trend on policy development is not only the matter of the regulation compliance, but also providing service or development performance,

b. From independent (sector) to interdependent (multi-sector)

There is also urgent need that the eligible expenses for USO Fund not only in the sector of infrastructure development but also for HR (Human Resources) development and community development.

6. Consequences of Policy Trend and USO Policy Development in AMC

a. Consecutive Timeline

There is some consequences of this policy trend in many countries, with set of USO objectives that oriented to performance of development, a deployment for USO program has to wait for 2 or 3 years to develop or to amend the regulation. The policy will focus on servicing and the regulation should follow.

b. Evolution the industry service

In the case of Malaysia there is the dual role of regulatory in terms of the regulatory role in line with our developmental policy to develop the industry. Therefore there is kind of migration from areas for assignment for to do things, to new activities which are consequential to the evolution of the industry service, since the telecommunication industry is very fast very progressive.

c. Evolution of the technology

The development of the policy would have to be driven by the evolution of the technology. The regulator, most of the time, is difficult to keep the technology neutral. However there is a need for to set certain objectives, for example to set on the target penetration that you accept to achieve within certain years prior the amendment.

d. Target Setting

Likewise in Malaysia, there is a goal that by 2008 for broadband, 75% penetration across household should be achieved. This target is become driving factor to amend law.

Other example is the fixed telephony. It has been observed that the trend is declining, therefore preferable for promoting more wireless broadband instead of wired broadband.

e. Policy framework for underprivileged

Moreover, the cellular penetration should be focused to the area where the rural community it self is being deprived from the service (underprivileged).

For example in the area that there is very low population, probably has pocket population in itself with comprised probably of several hundreds people, not having cellular telephony. This situation requires policy framework that would drive the service providers to the pocket area.

f. Living regulation

It shows that the regulation will have to be living regulation. It has to follow the trend. However, in the same time, the target benchmark should be set along some performance indicator (e.g. penetration rate).

Each country therefore should have expected USO target and the measures to achieve the benchmark and stated in the policy regulation under certain time frame.

g. Benchmark evaluation

The evaluation on the achievement of the benchmark (e.g. the broadband penetration and or cellular penetration rate) should be performed. Afterward we can cross-refer or call back to the benchmark of performance.

If there is a case where the result are not forthcoming or the results does not reflect the requirement of reaching the objectives on penetration, there is possibility to amend, maybe drastically, the regulation. For this reason, the regulation has to be dynamic in a certain sense.

7. Country specific policy

The dynamic of regulation is country base. In case of Myanmar, there is only one operator which is Myanma Posts and Telecommunications (MPT) and it is the sole provider controlled by government i.e. Ministry of Communications, Posts and Telegraphs for all telecommunication IT services in Myanmar. Under the Ministry there are IT, Communications, Postal, Telegraphs and Regulator (Posts and Telecommunications Department). Myanmar has been implementing the rural communication up to far flung area to fulfill the requirement for these areas to support social, economic, security and emergency purpose.

Myanma Post and Telecommunications (MPT) is doing the rural communications by Government Fund. MPT is now trying to fulfill the demand of customers but there are still requirements for satisfactory of demand in some areas. Currently Myanmar has limited experience on USO. Therefore lesson learnt from AMC that has developed USO is important for Myanmar's future USO program.

In case of Philippines experience, the existing laws are the Executive Order No 109, issued by the President and the Republic Act 7925, The Telecommunication Act of the Philippines enacted by the congress.

The dilemma of the services had mentioned in the regulation is basically the basic telephone service. However, because of the policy on being the technology neutral, the basic telephone service is not limited to the fixed line. Therefore, the operators or the participants in the USO may use other technology in providing the services. Accordingly, they may use the wireless local loop or other technology.

However, they might be tight to the basic telephone of services and during the initial implementation. The area has been assigned to the participants. They have been there when the law was promulgated. They were the first who participated in the USO and were able to get the areas. The Philippines was divided into eleven service areas but the problem is the period of the implementation has already over for the first company. Despite the fact that they are still required to provide the minimum number of lines.

Meanwhile, the new entrance is ready to come with request license for 3G and it is still within the scope of the cellular or mobile operator. Therefore licensing issue in USO service area and policy on technology become issue, since the USO was based on the basic telephone service. Hence, there is a need to review the policy.

To address this regulatory issue, the ongoing review on the policy for the USO has been conducted with also considers the policy on broadband. The policy formulation will be followed by the implementation rules and regulation.

With certain limitation, NTC has issued the memorandum circular and established implementing guidelines to encourage broadband and also opened up frequency for the broadband wireless access. In fact, this action is already broadening the USO program and become one of the priority areas of the government.

From the experience of the Philippines, there is lesson learnt, even if the policy or the law making process would take time, there could be some remedies to do it within the scope of the law or the policy.

In Thailand, USO program appears in USO Announcement from Telecommunications Regulator in Thailand - The National Telecommunications Commission. Universal Service Obligations (USO) is one of the major tasks of the National Telecommunications Commission (NTC) as indicated in the Acts. Since August 2nd, 2005, the NTC has issued a Notification on the Criteria, Procedure and Conditions for Universal Service of Basic Telecommunications and Social Services, which 2 licensees (presently TOT and CAT Telecom) must have an obligation for universal service of telecommunications.

Therefore, by the year 2009, each village of 6,000 targeted villages in rural areas will have at least 2 public telephones and each targeted health center of 4,000 will have at least 1 fixed telephone and 1 public telephone and.

- At least 1 Public Telephone Line shall be installed within the places that are more than 100 meters from the low-income communities;
- Public Telephone and facilities shall be provided to the Disabled;
- Not over 5,000 lines shall be provided to the persons or social organizations, and;
- Issuing no more than 1 million telephone cards (value of 100 baht) for the low-income disabled and elderly, and low-income group per person per month for a period of 30 months.

The Basic Telecommunications Service means provision public telephone, fixed-telephone and internet services without limitation on technology.

In Vietnam for the support Universal Telecom Service, some legal document system to develop universal service has been established. For the telephone service, legal document is a Vietnam national assembly issues the ordinant pos and telematic in 2002. Followed by, the Government Decree 2003 to implementing the ordinant and 2004

Prime Minister Issue to set up organization for implementing the universal telecom service with name Vietnam Public Utility Telecommunication Service Fund or VTF. VTF has the function to support the implementation of the policy of the provision of universal telecommunication service on through in Vietnam.

The above discussion has identified some of the policies area that we need to response for the benefit of AMC. The suggestions from Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand, and Vietnam will be included in project reports as inputs for policy recommendations.