



FIELD VISIT IN INDONESIA AND MALAYSIA

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IN ASEAN MEMBER COUNTRIES (τ(tau)-Project)

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STRUCTURE OF PRESENTATION

- Objectives
- Indonesia Visit
 - Survey location
 - Resume of Observation
 - People expectation about USO Program
 - Priority of Service Qualities
 - Implementation and Impact
- Malaysia Visit
 - Survey location
 - Resume of Observation
 - People expectation about USO Program
 - Priority of Service Qualities
 - Implementation and Impact
- Findings

OBJECTIVES

- Method of survey: interview and field observation
- Objectives:
 - To get information on location of the project, infrastructure condition, respondent information, and type of technology installed
 - To understand people's priority of service quality → to identify public perception on the expected level of service for USO implementation.

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INDONESIA VISIT



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SURVEY

- Field visit in Indonesia conducted at April – Juli 2007.
The surveys visit provinces where USO program 2003 and 2004 implemented



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RESUME OF OBSERVATION

	NORTH SUMATERA	LAMPUNG	SOUTH SULAWESI	EAST KALIMANTAN
TECHNOLOGY	WLL – Radio terrestrial	Cellular - CDMA	IP-Based Network	Fixed Portable Satellite
ACCESS ROAD	Average to bad access road	Bad access on the remote area, only accessible at day	Average to good access road	Very bad access, only accessible at day using several mode (river, road)
TOPOGRAPHY	Hilly	Hilly	Flat area	Hilly, through the forest
ENERGY SOURCE	Independent energy source, manage by community (home electricity)	Independent energy source manage by community; some area using electricity from state company (PLN)	Independent energy source manage by community; some area using electricity from state company (PLN)	Independent energy source manage by community

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RESUME OF OBSERVATION (2)

Technology	NORTH SUMATERA WLL – Radio terrestrial	LAMPUNG Cellular - CDMA	SOUTH SULAWESI IP-Based Network	EAST KALIMANTAN Fixed Portable Satellite
Accessibility Issues	Good accessibility due to location and ease of equipment to use	Good accessibility due to location and ease of equipment to use	Good accessibility due to location and relatively ease of equipment to use. IP-based technology required basic knowledge on how to operate the computer.	Good accessibility due to location and ease of equipment to use
Tariff	Relatively affordable	Affordable and people think the tariff is very cheap	Relatively affordable	Relatively affordable but people think the tariff should be lower
Promoting agents	Manager, also the head of village	Manager, also the head of village. Some place by shops owner	Manager, also the head of village	Manager, also the head of village
Impact on linguistic aspect	New vocabulary ("missed call, cellular, GSM, redial, etc")	New vocabulary ("missed call, cellular, GSM, redial, etc")	New vocabulary ("missed call, cellular, GSM, redial, etc")	New vocabulary ("missed call, cellular, GSM, redial, etc")
Cultural issues	Change the way people interact Privacy not a big issue	Change the way people interact Privacy not a big issue	Change the way people interact Privacy not a big issue	Change the way people interact Privacy not a big issue
Safety Risk	Relatively safe from lightning struck and electricity shock	Relatively safe from lightning struck and electricity shock	Relatively safe from lightning struck and electricity shock	Relatively safe from lightning struck and electricity shock

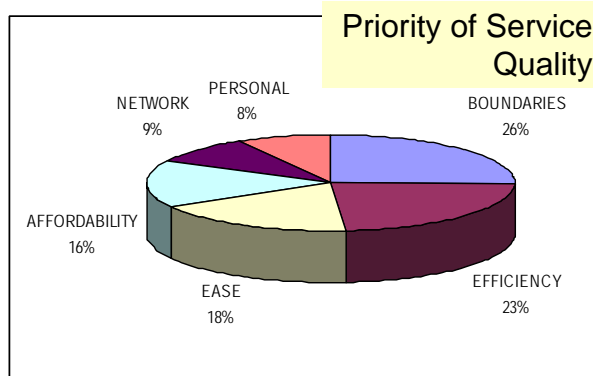
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RESUME OF OBSERVATION (3)

Technology	NORTH SUMATERA WLL – Radio terrestrial	LAMPUNG Cellular - CDMA	SOUTH SULAWESI IP-Based Network	EAST KALIMANTAN Fixed Portable Satellite
Knowledge and Expertise	People able to operate but unable to repair any damage. Any damage equipment require two both side (user and base side) of equipment to be repaired.	People able to operate but unable to repair any damage. Its cheaper for people to buy new equipment than to repair.	People able to operate but unable to repair any damage. Damage could be physical or the software error.	People able to operate but unable to repair any damage. The nearest place to repaired in at another island.
Economics	Benefits from cost efficiency	Benefits from cost efficiency	na	Benefits from cost efficiency
Technical issues	All equipment parts must be provided and repaired at the city. Any damage required two side (user and based station side) of equipment to be repaired.	All equipment parts must be provided and repaired at the city.	All equipment parts must be provided and repaired at the city. The damage can be software and hardware, that lead to more complicated repairing.	All equipment parts must be provided and repaired at the another island (or to the capital) because of availability.
Law and Regulation	The manager agreed by community. No specific rule needed	The manager agreed by community	The manager agreed by community	The manager agreed by community. No specific rule needed

PEOPLE EXPECTATION

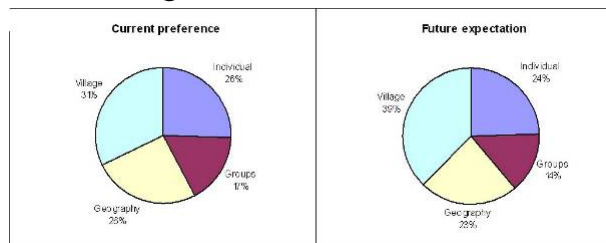
1. No boundaries
2. Efficiency
3. Ease of use
4. Affordability
5. Network
6. Personal



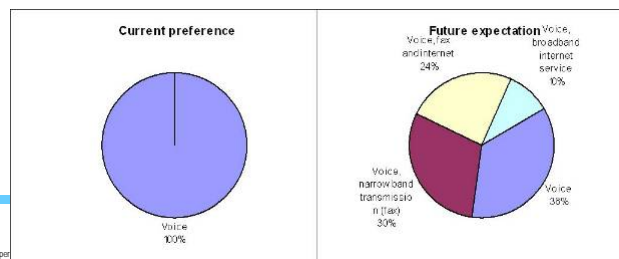
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PEOPLE EXPECTATION (2)

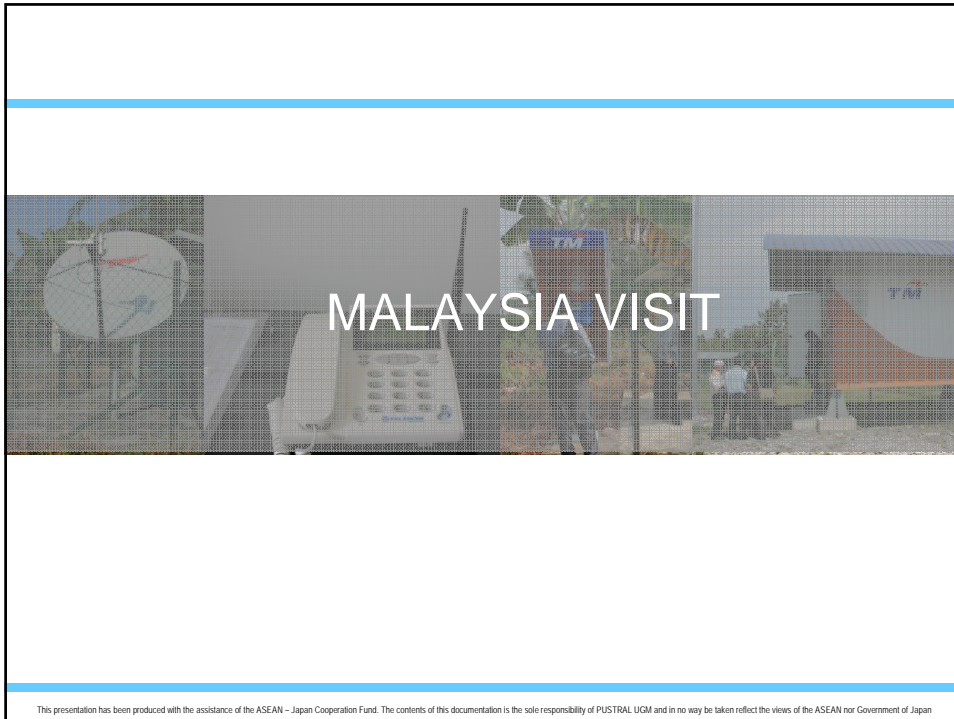
■ Coverage



■ Service characteristics



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USP PROGRAM

- Universal Service Provision (USP) targets the underserved area and underserved group
- There are 89 districts defined
- Service provided:
 - Community (collective) telephone lines
 - Individual telephone lines
 - Community (collective) internet lines
 - Individual internet lines
- Technologies used:
 - Fiber optic, copper cable, VSAT and CDMA
 - Fixed GSM System
 - Wireless Broadband Access/VOIP
 - Fixed Mobile Satellite Phone (ACES)

Current implementation focus on this

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RESUME OF OBSERVATION

TECHNOLOGY	MANG CDMA	BELIONG CDMA with VSAT	BAU Fixed GSM	PAPAR IP-based Wireless with VSAT Backhaul
ENERGY SOURCE	No problems with electricity supply	No problems with electricity supply	No problems with electricity supply	Generally no problems with electricity supply. Some use diesel due to significant voltage drop
Accessibility Issues	Accessible to the target communities Good card distribution	Accessible to the target communities Good card distribution	Accessible to the target communities Good card distribution	Accessible to the target communities Good card distribution
Tariff	Affordable	Affordable	Affordable	No cost effective due to hilly terrain and LoS constraints
Promoting agents	None observed	None observed	None observed	None observed

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RESUME OF OBSERVATION (2)

Technology	MANG CDMA	BELIONG CDMA with VSAT	BAU Fixed GSM	PAPAR IP-based Wireless with VSAT Backhaul
Knowledge and Expertise	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.
Knowledge and Expertise	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.	User guide in every public pay phone make no special expertise needed to operate the phone. Maintenance done by providers.
Sustainability	The sustainability of service guaranteed by USP claim	The sustainability of service guaranteed by USP claim	The sustainability of service guaranteed by USP claim	The sustainability of service guaranteed by USP claim

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RESUME OF OBSERVATION (3)

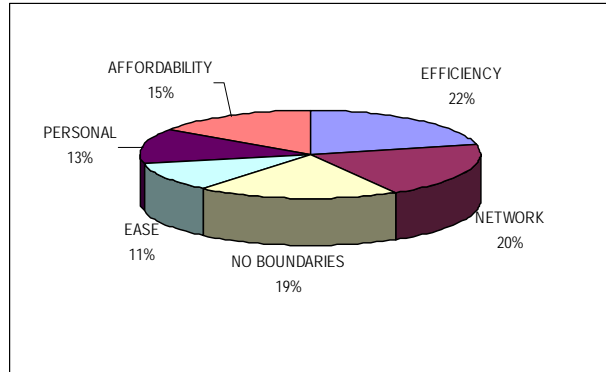
Technology	MANG CDMA	BELIONG CDMA with VSAT	BAU Fixed GSM	PAPAR IP-based Wireless with VSAT Backhaul
Brain drain	More people are getting jobs in the city	More people are getting jobs in the city	More people are getting jobs in the city	More people are getting jobs in the city
Power relation involving technology	Communication between citizens and their representatives	Communication between citizens and their representatives	Communication between citizens and their representatives	Communication between citizens and their representatives
Law and Regulation	No specific rule in using the phone facilities	No specific rule in using the phone facilities	No specific rule in using the phone facilities	No specific rule in using the phone facilities

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PEOPLE EXPECTATION

■ Priority of Service Quality

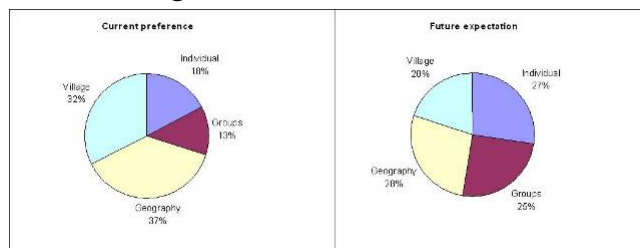
1. Efficiency
2. Network
3. No boundaries
4. Affordability
5. Personal
6. Ease



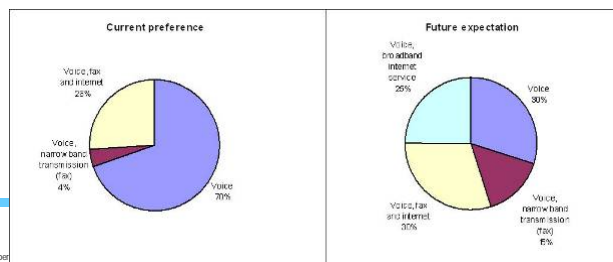
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PEOPLE EXPECTATION

■ Coverage



■ Service characteristics



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FINDINGS

■ Economical Impact

- The economical impact of USP Program varies from one area to another.
- The impact is more significant in areas with higher business and trading activities because fast and easy communication is a direct accelerator to these sectors.
- Business transactions can be carried out faster, therefore money circulates faster too.

■ Social Benefits

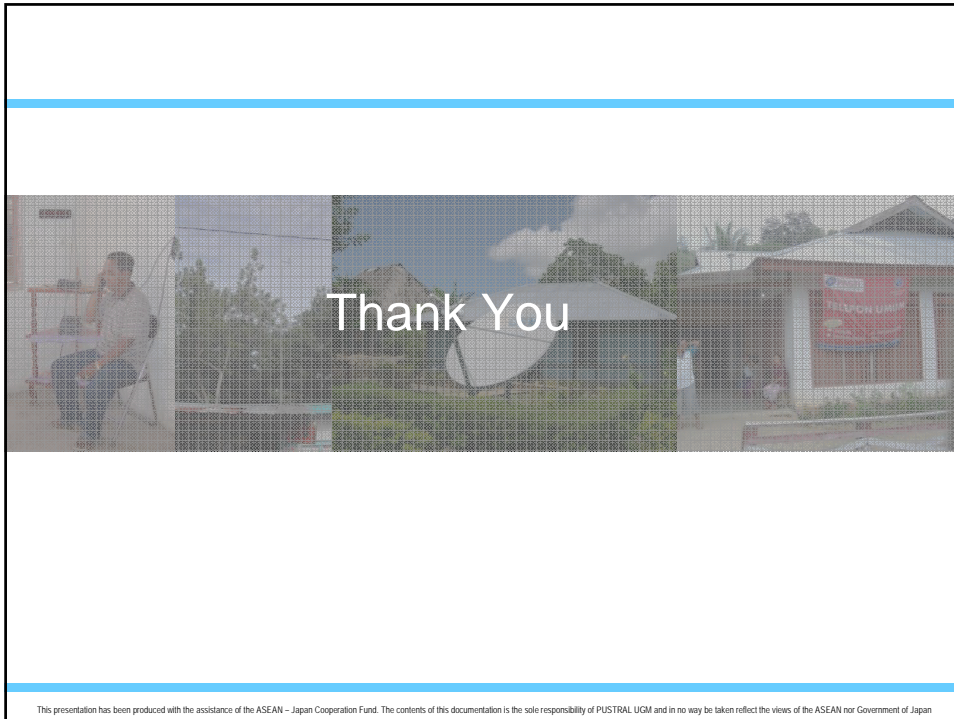
- Telecommunication reduces distance gap between family members and relatives.

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FINDINGS

- It may not be easy to identify impact of USP project implementation on the community, because the implementation has just been launched a few years back.
- However, it can be analyzed that the target community groups are experiencing a situation similar to other groups which are exposed to the communication and information world:
 - introduction of new orders,
 - new schemes and mechanisms,
 - awareness of information values,
 - new traditions that are strongly influenced by the use of information and knowledge
- Manifestation of various types of impact will be different from one group to another, and so will the reactions and results.

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