

Session 5: ITU Regional Initiatives for Asia and the Pacific: Contributions

17 July 2026 9:00 – 10:00 (Bangkok Time/GMT+7)



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Mr. Gomer Padong
Policy and
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National Adviser
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MINISTRY OF IT & TELECOMMUNICATIONS

SMART VILLAGE PAKISTAN

Empowering Communities

Bridging the Rural Digital Divide —An Invitation to Partner & Pledge

Scaling Digital Inclusion Across Pakistan

ITU REGIONAL DEVELOPMENT FORUM | 17 JULY 2026

BANGKOK, THAILAND

Ministry of Information Technology and Telecommunication

Dr. Muhammad Amir Malik

Member International Coordination

- Pakistan

THE RURAL DIGITAL CHALLENGE

63%

Rural Population

240M

Total Population

~65%

Rural Internet Penetration

194M

Mobile Subscribers

CRITICAL BARRIERS

-  **Connectivity Gap**—Limited broadband and mobile internet in rural areas
-  **Electricity Shortages**—Unreliable power limits digital adoption
-  **Healthcare & Education Access**—Rural communities underserved
-  **Digital Skills Gap**—Limited vocational and entrepreneurship training

THE SMART VILLAGE SOLUTION

- An **integrated hub model** delivering digital services to rural communities
- **E-Health** via telemedicine connecting patients with urban specialists
- **E-Education** through smart classrooms in remote areas
- **Digital Skills** training for freelancing and entrepreneurship
- **Solar-powered** connectivity hubs for sustainability
- **Community-driven** model ensuring long-term impact

SMART VILLAGE PAKISTAN INITIATIVE

Launched 20 21by MoITT with ITU | Flagship program under Digital Pakistan Policy



2021

Initiative launched with ITU



2023

First pilot (Gokina) launched in
Islamabad ICT



2024 -26

Roras pilot + Kernal Sher Ali (Pilot)

JAN 2023

Gokina, Islamabad

- First Smart Village pilot
- 4,0 0 0 + patients via telemedicine
- 9 6 % women beneficiaries
- 10 0 + girls in smart classrooms
- 250 + women trained digitally

DEC 2024

Roras, Sialkot

- Second pilot launched
- 10 0 + trained in 3 -tier skills
- 70 % women trainees
- Community ownership model
- E -education

APR 2025

Kernal Sher Ali, Swabi

- Third pilot launched
- Integrated hub model
- Trained 50 + Women in e-commerce skills

SV PAKISTAN — ISDB PROJECT

ANNOUNCED 16 JULY 2026

Islamic Development Bank partnership to scale Smart Village Pakistan

A MAJOR MILESTONE IN RURAL DIGITAL TRANSFORMATION

The ISDB partnership represents a transformative commitment to scaling the proven Smart Village model from 3 pilots to villages across Pakistan, bringing digital inclusion.

MoITT + ITU + ISDB

Tri-party partnership for digital inclusion in rural Pakistan



PROJECT SCOPE

- Scale to **villages** across all Pakistan by 20 28
- Deploy **integrated digital hubs** across Pakistan’s villages
- Cover **e-health, e-education, skills, and solar power**



ISDB COMMITMENT

- **Financial support** for village deployments
- **Technical assistance** and program oversight
- **Knowledge sharing** across ITU member states
- **Impact monitoring** and evaluation framework



GLOBAL REPLICATION

- Model designed for **all developing nations**
- Adaptable to **diverse rural contexts**
- Open framework for **partner contributions**
- Part of ITU’s **Smart Village Global Initiative**

PROJECT STEERING COMMITTEE

Governance structure ensuring transparency, accountability, and effective implementation



GOVERNANCE FRAMEWORK

- Quarterly reviews by Steering Committee
- Annual impact audits with independent evaluators
- Provincial working groups for local coordination
- Community feedback loops at village level
- Transparent reporting to all stakeholders
- Risk management and mitigation protocols

ROADMAP & NEXT STEPS

Three-phase implementation plan to enhance number of Smart Villages by 2028



PARTNERSHIP OPPORTUNITIES

Multiple pathways for stakeholders to engage with Smart Village Pakistan



Governments

Replicate the Smart Village model in your countries. Access our blueprint, training materials, and implementation guides through ITU.



Development Banks

Fund village deployments with proven ROI. Join ISDB in financing digital inclusion at scale across rural communities.



Telecom Operators

Provide 4G/5G connectivity infrastructure. Expand your rural subscriber base while bridging the digital divide.



Tech Companies

Donate equipment, cloud services, and expertise. Build your emerging market presence while creating social impact.



NGOs

Deliver on-ground services in health, education, and community mobilization. Leverage our digital infrastructure.



Training Partners

Build digital skills capacity at scale. Join Teletaleem and others in transforming rural talent into digital workforce.

THANK YOU

ITU & Islamic Development Bank

Our heartfelt gratitude to **ITU** for their unwavering support since 2021
and to **ISDB** for their visionary partnership.

Together, we are building a model that can transform rural communities
across the developing world.

MINISTRY OF IT & TELECOMMUNICATIONS

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GOVERNMENT OF PAKISTAN

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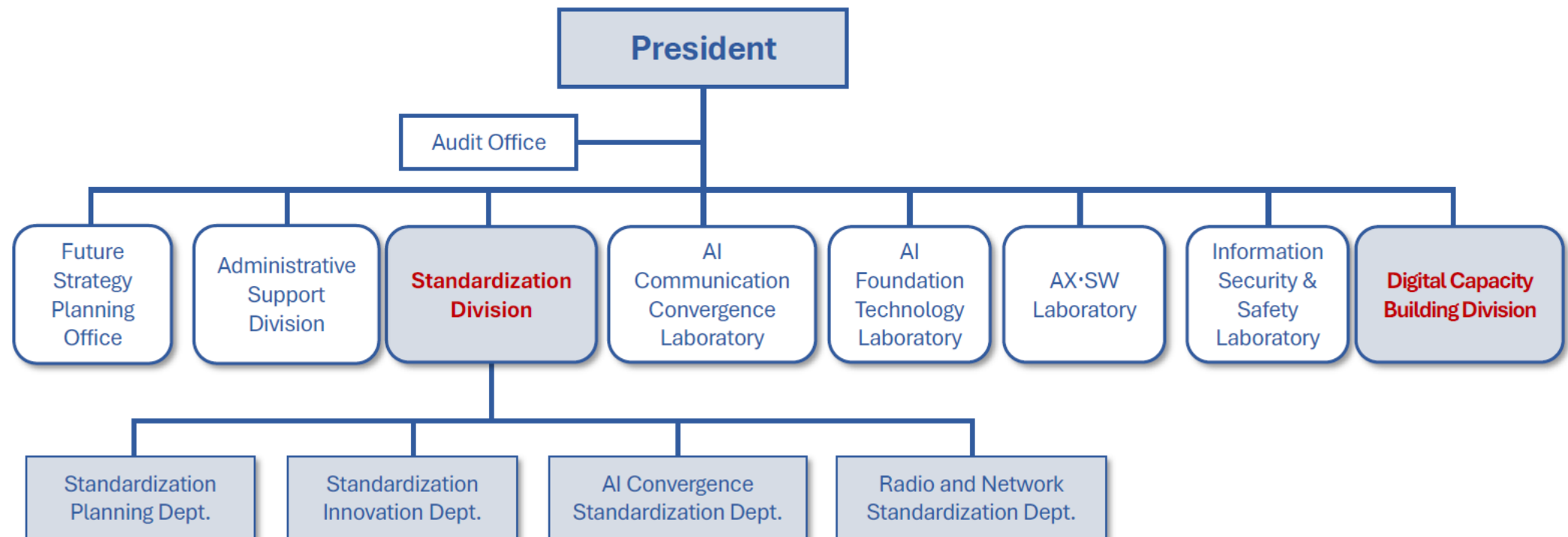
Importance of Capacity Building efforts to support ASPs

Minah LEE
Head of Global Cooperation Center, TTA

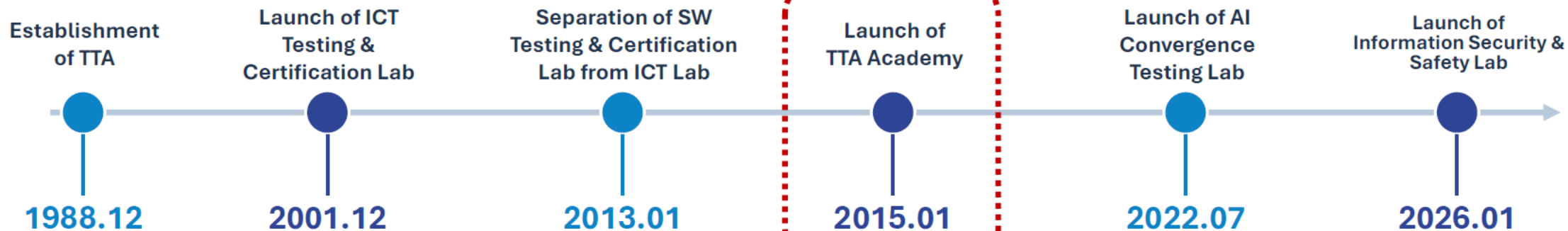
17th July, 2026



TTA(Telecommunications Technology Association) is a non-governmental **SDO (Standardization Development Organization) specialized in ICT** that comprehensively provides all services related to ICT standards, including **strategic planning** and **development of ICT standards, testing and certification** for ICT products.



History



Mission/Role

“Global Leader in ICT Standardization, Testing and Certification”

01

Development of
ICT standards

02

Testing & certification
of ICTs (AX, SW etc.)
products and Services

03

International
cooperation
in ICT standards
and testing/certification

04

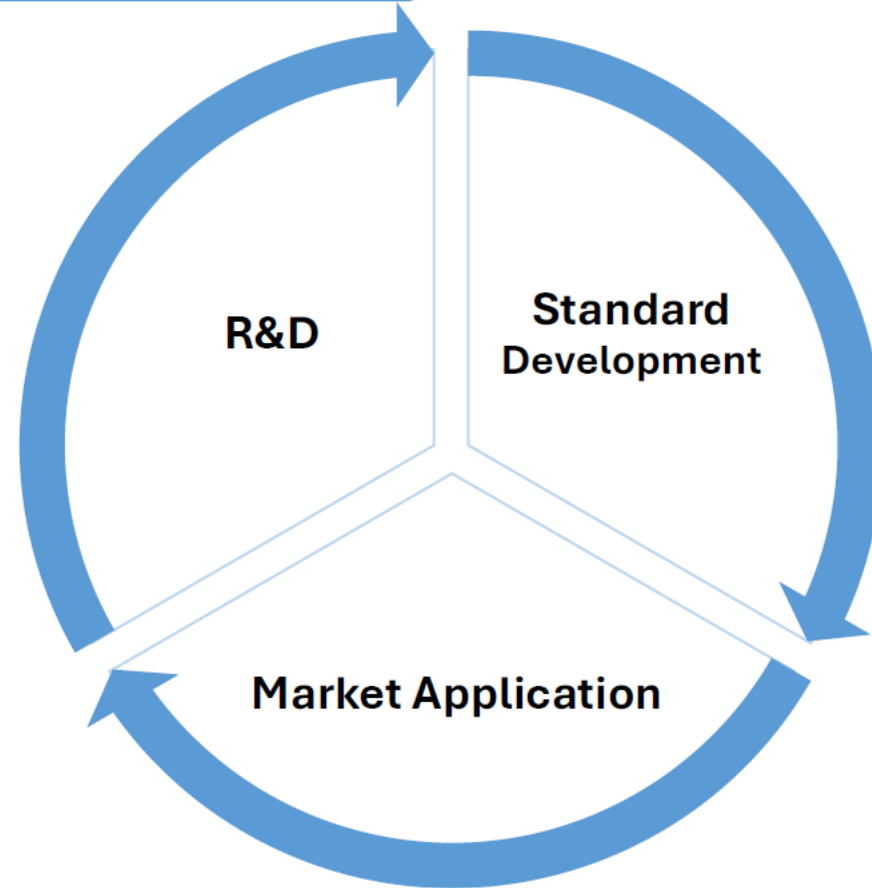
Capacity building on
ICT standardization
and testing

05

Promotion of
ICT standardization

1. Why Capacity Building is the key to ASPs

A Bedrock for Standardisation Ecosystem



Capacity Building

1. Why Capacity Building is the key to ASPs

A Tool for Bridging Standardization Gap

PP Resolution 123

Bridging the standardization gap between developing and developed countries

WTDC Resolution 47

Enhancement of knowledge and effective application of ITU Recommendations in developing countries, including conformance and interoperability testing of systems manufactured on the basis of ITU Recommendations

WTDC Resolution 40

Group on Capacity-Building Initiatives

WTSA Resolution 44

Bridging the standardization gap between developing and developed countries

WTSA Resolution 107

Enhancing the engagement of next-generation experts in the standardization activities of the ITU-T

Training for Cybersecurity

Background

- **Importance of cybersecurity**
 - Increasing cyber threats and surging demand for international cybersecurity standards
- **Strategic Alignment – Implementing the ASPs**

ASP 2 (Digital Transformation)

**Bridging the standardization gap through
human capacity development**

ASP 5 (Safe & Secure Environment)

**Enhancing regional capabilities to address
cybersecurity challenges**

2. Best Practice

Training for Cybersecurity

Overview

- **Date / Location** : 11th - 13th February 2026 / Bangkok
- **Objectives**

ITU-T X.1220 : Storage Protection

Understand and apply storage security technologies that prevent data tampering and leakage caused by ransomware and malware

ITU-T X.1280 : Passwordless Authentication

Understand and apply passwordless mutual authentication technologies that protect user accounts from phishing attacks

Experiential Learning

Strengthen competencies in data and account protection by directly installing and integrating Storage Protection Software (for data security) and Passwordless X.1280 software (for account security)



2. Best Practice

Training for Cybersecurity

Key outcomes

Enhanced Capacity

Improved readiness to implement ITU security standards

Practical Skills

Hands-on training against ransomware & phishing

Standards Adoption

Accelerated the practical application of ITU-T Recommendations

Interregional Collaboration

Fostered collaboration between Asia-Pacific and CIS regions



“Global Collaboration is the Ultimate Key for Capacity Building”

Joint Declaration between TTA and ITU

To collaborate in capacity building & regional initiatives taking into account ASPs

Joint Events for Capacity Building

To explore opportunities for collaboration with various countries to enhance capacity

* TTA will hold a workshop during GISC (Global ICT Standards Conference) 2026 (Nov. 2026, Seoul)

Active Engagement in ITU's Global Platforms

To foster comprehensive and multi-dimensional capacity



Thank you

Minah LEE
TTA



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ITU Regional Development Forum for Asia and the Pacific (RDF-ASP) 2026

*Universal, meaningful, and affordable connectivity for
an inclusive and sustainable digital future*

**16-17 July 2026
Bangkok, Thailand**

**Introduction of ITU-D SG2 Q1/2
(Enabling telecommunications/ICTs for digital transformation
and smart sustainable cities and communities)
to activities focused on the Asia Pacific region**

Isao Nakajima

Professor of Seisa University, Yokohama, Japan

Vice-Rapporteur for ITU-D SG2 Q1/2

ITU-D SG2 Q1/2(Enabling telecommunications/ICTs for digital transformation and smart sustainable cities and communities)

Digital transformation

The focus of this priority is to foster the development and use of telecommunications/ICTs, as well as applications and services, to close the digital divide and empower people and societies for sustainable development. The priority will identify new approaches that engage Member States and other stakeholders in digital transformation, including start-ups, small and medium enterprises (SMEs), entrepreneurships, public-private partnerships (PPPs), and the public and private sectors, to support integration of ICT innovation and national development agendas while identifying needs and delivering initiatives at a national level to develop local telecommunication/ICT innovation and entrepreneurship ecosystems in developing countries.

Sustainable cities and communities

Focus on examines core areas including connectivity and infrastructure, policies and business models, smart city planning, smart services (leveraging AI and IoT), intelligence assessment mechanisms, and capacity building. By synthesizing these experiences and good practices, the report offers a valuable framework to build resilient, inclusive, and sustainable smart cities and communities globally.

Focus on eHealth on Q1/2 Work plan

Based on the ITU-D Q1/2 work plan, this proposal will consider the ways eHealth/telemedicine may deliver socio-economic benefits to Asia-Pacific communities, including improved healthcare for greater country's population, especially those in rural areas and isolated remote islands.

- a reduction in the need to transport patients from rural to urban hospitals or even outside the country;
- the provision of means of consultation for healthcare may result number of indirect benefits to a country, by such as development of a value-added service delivery by telecom operators.
- access to medical database by remote healthcare professionals and/or provide AI medical information so that they can keep up to date with developments in the field.
- share advanced eHealth related network technologies and eHealth standardizations dealt by ITU-T and ITU-R.

In addition, eHealth/telemedicine has the potential to offer a number of indirect benefits to a country, such as advanced public services managed by government, and development of value-added services for delivery by telecom operators.

BDT's Digital Public Infrastructure and Digital Public Goods

Be Healthy Be Mobile

- Be He@lthy, Be Mobile continued to demonstrate how DPI and DPG can enable people centred digital health services. Support included the development of a national digital health investment case in The Gambia, with return-on-investment analysis and strategic recommendations for interventions addressing non-communicable diseases. ITU-D also contributed to global policy dialogue at the World Health Assembly, reinforcing the role of interoperable platforms, data governance, and capacity building in strengthening health systems and improving access to care.

Smart cities, villages and islands

- The Smart Villages and Smart Islands initiative expanded access to digital services for underserved communities, rolling out in 13 countries across Africa, Asia Pacific, and Small Island Developing States. Services included telemedicine, digital education, e-payments, and local e-commerce, with a focus on sustainability, community engagement, and capacity building.

BDT's Digital Public Infrastructure and Digital Public Goods(Con't)

GovStack

- GovStack remained a central pillar of ITU-D's work. During this period, 15 technical specifications for digital government building blocks covering identity, payments, data exchange, consent, registries, e-signature, GIS, and e-marketplace were published to support reusable, interoperable government services.

Open-Source Environment Enabler (OSEE)

- OSEE advanced open source as a key enabler of DPI and DPG. Piloted in Kenya, the initiative established a national Open Source Programme Office (OSPO) and provided structured education, training, and capacity building frameworks to help governments adopt and sustain open-source technologies. **The OSEE stream also supported technical innovation, including reference implementations of open-source AI chatbots, a multistakeholder working group on open source GenAI for public services, and the GenAI for Good Challenge implemented with IEEE, which produced practical open-source AI solutions for agriculture, health, and climate resilience in developing countries.**

Examples for action



1.Remote Robotic surgery via 5G

- Robot-assisted surgery is a procedure performed by a surgeon who controls robotic arms using a dedicated console. The tips of the robotic arms are equipped with long and thin surgical instruments and a camera, enabling more precise and delicate surgery by performing complex movements difficult for human hands and providing magnified 3D views of the surgical site via huge data link of 5G. Until now, eHealth has only been used to diagnose patients, but this method is the first in history to be a system that treats patients via a small delayed network.

Remote Robotic Surgery via 5G



2. Constellation satellites

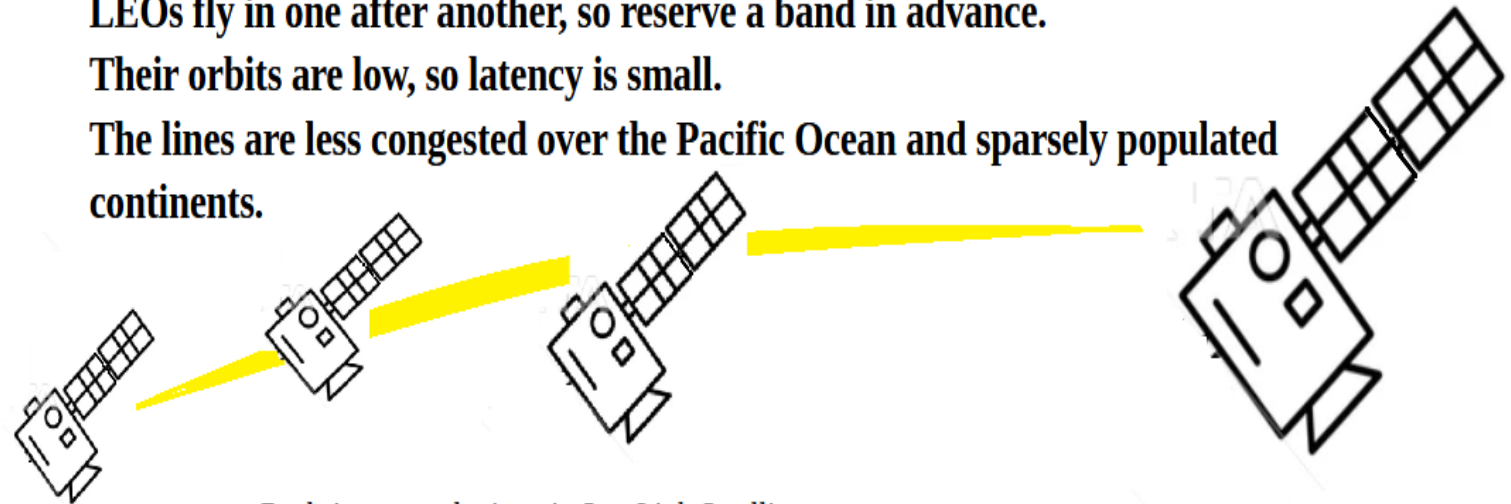
- This network use a relay system of numerous low-Earth orbit satellites to communicate data, enabling high-speed, low-latency communication. For example, medical motion picture can be sent to specialists in developed countries from remote islands in the Pacific Ocean where fiber optic lines are unavailable. While clinics on remote islands may lack CT scanners or MRI machines, ultrasound can be used to assess myocardial infarction by observing heart movement and to suspect intra-peritoneal fluid accumulation by examining the blood pool in Morrison's pouch. This device can be used by nurses and paramedics, allowing them to decide whether or not to transport the patient.

Constellation satellites

LEOs fly in one after another, so reserve a band in advance.

Their orbits are low, so latency is small.

The lines are less congested over the Pacific Ocean and sparsely populated continents.



Real-time consultation via Star-Link Satellites

Ultrasound scanner:

Chest wall: Myocardial infarction

Abdomen(upper right): Blood pool in Morrison's pouch

X-ray images:

Pneumonia, etc.

3. Clinical medicine supported by Cloud network

What is SaaS?

SaaS (or SAS) is an abbreviation for Software As A Service, a service that allows you to use software by accessing a cloud server. You can use a medical-specific electronic medical record system. Of course, it can also be used for nationwide medical expense payment systems.



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INDONESIA COMPREHENSIVE FRAMEWORK, READY TO LEAD

EARLY WARNINGS FOR ALL · BAKU ACTION PLAN 2026–2029

Dr. Puji Pujiono

National Adviser, Disaster Management Authority
Republic of Indonesia

- UN veteran with decades of experience leading humanitarian emergency response and disaster-risk management in the field and at UN headquarters.
- ITU Senior Adviser for Asia-Pacific, driving digital connectivity and transformation including school-connectivity, Smart Village, emergency telecoms and the Early-Warning-for-All initiative.
- Member of global steering committees, including the OECD, Multilateral Organisation Performance Network, and Future of AID 2040.
- Director General -level National Adviser to Indonesia's National Disaster Management Authority.



WE HAVE An EW4ALL ROBUST POSTURE



PILLAR 1

RISK KNOWLEDGE

- ✓ 15+ universities & agencies generating risk knowledge
- ✓ Formal upstream–downstream division of labour (Priority 8, BNPB Plan 2025–2029)
- ✓ BRIN's 2026 disaster research cluster
- ✓ Disaster One Data — pooled across BPS, Geospatial, Bappenas
- ✓ IICF on telecoms sector knowledge



PILLAR 2

DETECTION & FORECASTING

- ✓ BMKG Tsunami lead time <3 min
- ✓ Volcanic eruption detection & warning
- ✓ EWARS 24-hr response
- ✓ InaRISK — hazard indices and mapping in all 514 localities
- ✓ Legally binding One Map Policy



PILLAR 3

PREPAREDNESS & RESPONSE

- ✓ Resilient Villages - pentahelix — govt., academia, business, community, media
- ✓ KATANA brings preparedness to the household level
- ✓ Red Cross & CSOs Com-Based EWS nationwide
- ✓ IDRIP built EOCs, evacuation routes, and response infrastructure



PILLAR 4

DISSEMINATION

- ✓ Automated: InaTEWS, MEWS/CEWS, INA-EEWS, MAGMA/LEWS
- ✓ Multi-channel delivery — Cell Broadcast, SMS Blast, TV, radio, apps
- ✓ SISKOMNAS PMPB unifies warnings, 112, and government radio
- ✓ Strong industry uptake — Telkomsel, XL, Indosat, Telkom, RAPI

HOWEVER, THERE ARE CHALLENGES



Fragmented upstream data; duplicated analysis

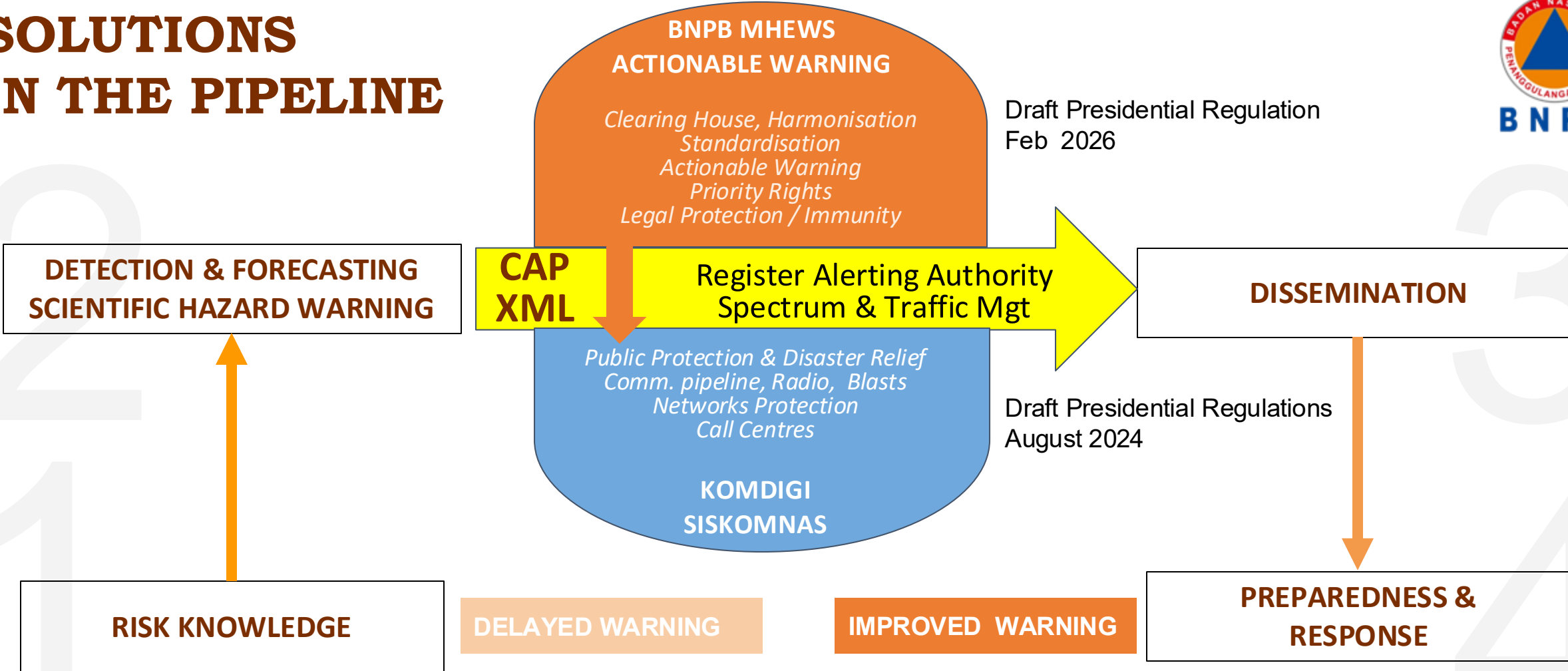
Difficulties in data sharing

Scientific & action warning conflation

Local hesitance, awaiting Emergency decree

Warning messages caught in network traffic

SOLUTIONS IN THE PIPELINE



- Fragmented upstream data; duplicated analysis -----> BNPB as A clearing House — integrating without duplicating
- Difficulties in data sharing -----> Legally mandated & ITU standards aligned CAP/XML
- Scientific & action warning conflation -----> Differentiated scientific warning from actionable warning
- Local hesitance, awaiting Emergency decree -----> Legal immunity for field officers to act on warning
- Warning messages caught in network traffic -----> Network Priority Rights — ingestion · pre-emption · throttling

POTENTIAL ALIGNMENT AND EXPLORATION



BAKU ACTION PLAN 2026–2029 · ASP5 · Safe, Secure, Resilient ICT



**CAP/XML
HARMONISATION**

ITU-D SG1,
Question 3/1



PPDR SPECTRUM

ITU-R · Asia-Pacific
Telecommunity



**CROSS-BORDER
INTEROPERABILITY**

Regional radio-
network linkage



**DISASTER CONNECTIVITY
MAP**

Pillar 3 technical
assistance

INDONESIA CONNECTED — INDONESIA RESILIENT

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