Digital Broadcasting
Asia-Pacific Region

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The Broadcast Evolution and contribution to Convergence

From the days of early radio - through the emergence of monochrome television, followed by color TV, satellite and the later digital TV (HD, UHD TV) – innovation has driven change; resulting in a richer and **convergent multimedia world.**

Risks of not embracing the switchover

- ✓ **Increased costs for analogue broadcasters**
- ✓ **Loss of revenues for analogue broadcasters**
- ✓ **Broadcasters less able to compete with Pay-TV**
- ✓ **Economic/ Social**

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Multiple benefits for consumers

✓ **More programs available**
✓ **Cheaper digital TV sets available**
✓ **Added value features**

A VARIETY OF YOUR FAVORITE CHANNELS

Multiple benefits for broadcasters

- ✓ **Generates potential for a mixed of free/subscription model**

- ✓ **HD and full HD capability**

- ✓ **Potential for reducing operating costs**

- ✓ **Gain competitive edge**

- ✓ **Production of regional content**

...but there are more benefits...

- ✓ **Efficiency gains**

- ✓ **Better quality**

- ✓ **Lower power consumption**
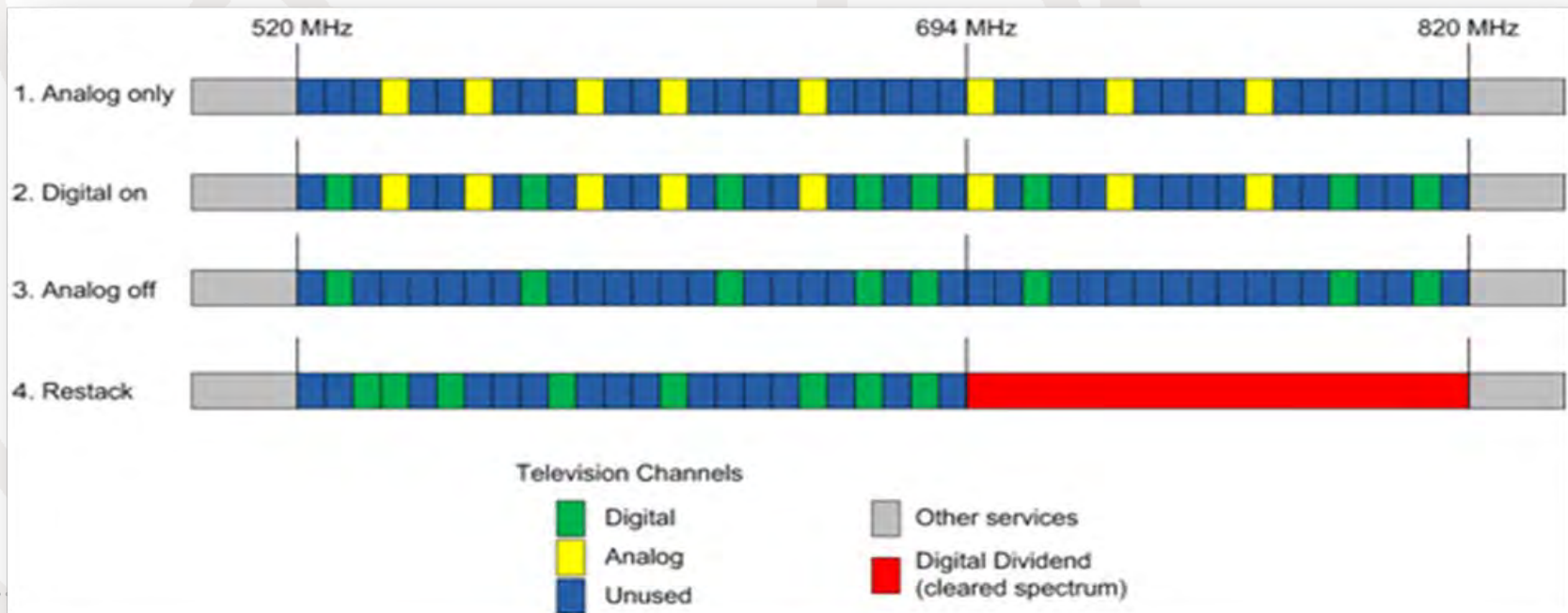
- ✓ **Digital production**

- ✓ **Digital Dividend**

Digital Dividend

The term digital dividend is used to express the spectrum efficiency gain due to the switchover from analogue to digital terrestrial television services.

The digital dividend may be used by broadcasting services e.g. provision of more programmes, high definition, 3D or mobile television.

ITU ASP Regional Initiative on Digital Broadcasting

To assist countries in Asia and the Pacific region in smooth transition from analogue to digital terrestrial television broadcasting with the followings:

ROADMAP FOR THE TRANSITION FROM ANALOGUE TO DIGITAL BROADCASTING

- **Policy and regulatory framework** for digital terrestrial television broadcasting through adaptation of comprehensive guideline for the transition from analogue to digital broadcasting.

- **Digital Broadcasting roadmap** for transition from analogue to digital terrestrial television broadcasting;

- **Enhanced skills** of concerned experts on the Digital Broadcasting Master Plan for the transition and technologies including interactive multimedia services, Mobile TV, Cable TV, Satellite TV and IPTV.

ITU Broadcasting Projects

❑ **ITU-MIC (Japan)** : Transition from Analogue to Digital Broadcasting in Africa and Asia-Pacific

❑ **ITU-KCC-MSIP (RO Korea)** : Roadmap for Transition from Analogue to Digital Terrestrial Television Broadcasting in Asia and the Pacific, Africa, and Americas
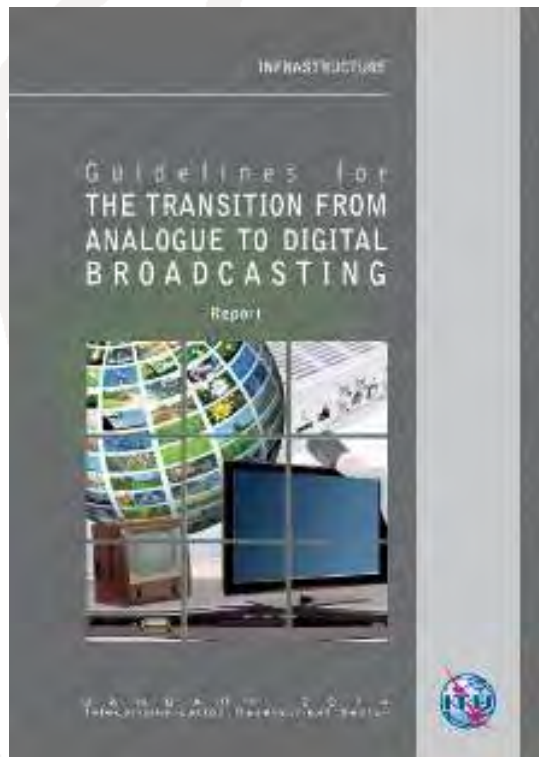
❑ **ITU-NBTC (Thailand)** : Roadmaps for Transition from Analogue to Digital Terrestrial Television Broadcasting & Digital Radio Deployment in Thailand

❑ **COMMS Australia** : Supports to ITU ASP Digital Broadcasting Initiative

Guidelines for the Transition from Analogue to Digital Broadcasting (Jan 2014)

Part 1	Introduction
Part 2	Policy and regulation
Part 3	Market and business development
Part 4	DTTB networks
Part 5	MTV networks
Part 6	Roadmap development
Annex A	Implementation of the GE06 Agreement
Annex B	More detailed information on some regulatory topics
Annex C	More detailed information on some DTTB network topics
Annex D	More detailed information on some MTV network topics
Annex E	Guidelines for migration of broadcast archives from analogue to digital
Annex F	Television broadcasting via satellite
Annex G	Television broadcasting via cable TV networks and IPTV

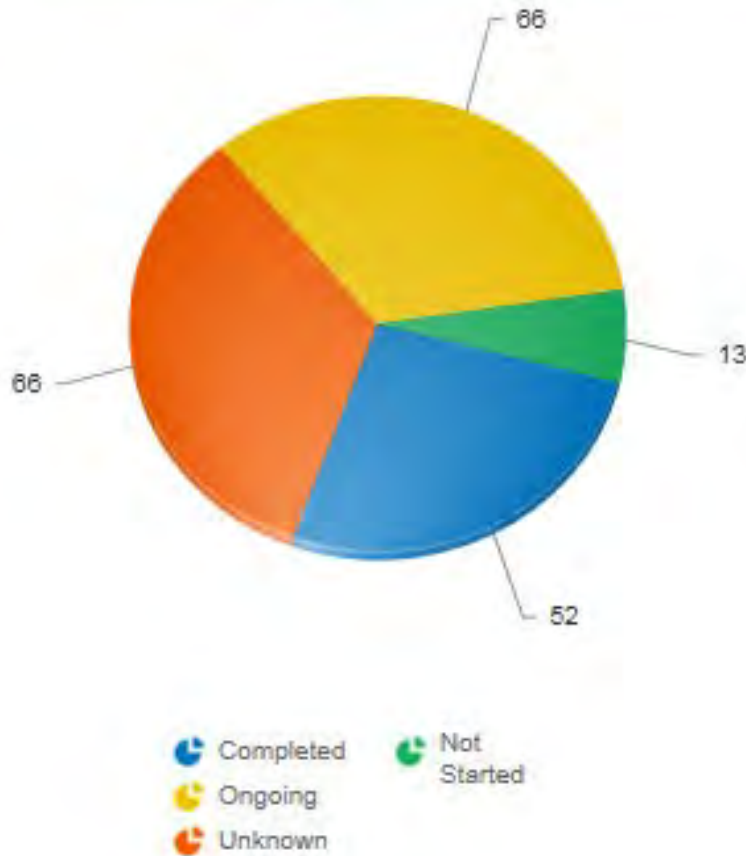http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Documents/Guidelines%20final.pdf

National Roadmap Reports (2010-2014)

- National Roadmaps for Transition from Analogue to Digital Terrestrial Television Broadcasting (24 countries in the region)
  http://www.itu.int/en/ITU-D/Technology/Pages/ProjectonthedigitalbroadcastingtransitionroadmapinAsiaPacificCountriesRoadmaps.aspx
- **Asia (15)**: Afghanistan, Bangladesh, Bhutan, Cambodia, Indonesia, Lao PDR, Mongolia, Maldives, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Timor-Leste, Vietnam
- **Pacific: (9)** Fiji, Kiribati, Micronesia, Nauru, Papua New Guinea, Samoa, Solomon Islands, Vanuatu, Tonga

Digital Switch Over of All countries

ALL COUNTRIES STATUS

Status	Value
Ongoing	66
Not Started	13
Completed	52
Unknown	66

Legend:
- Completed
- Ongoing
- Unknown
- Not Started

Andora
Australia
Austria
Belgium
Canada
Croatia
Cyprus
Czech Rep
Denmark
Estonia
Finland
Former Yugoslav
  Republic of Macedonia
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
United Arab Emirates
United Kingdom
United States

Japan
Korea R.O.
Latvia
Lithuania
Luxembourg
Malawi
Malta
Mauritius
Monaco
Montenegro
Netherlands
New Zealand
Norway
Poland
Portugal
Rwanda R.O.
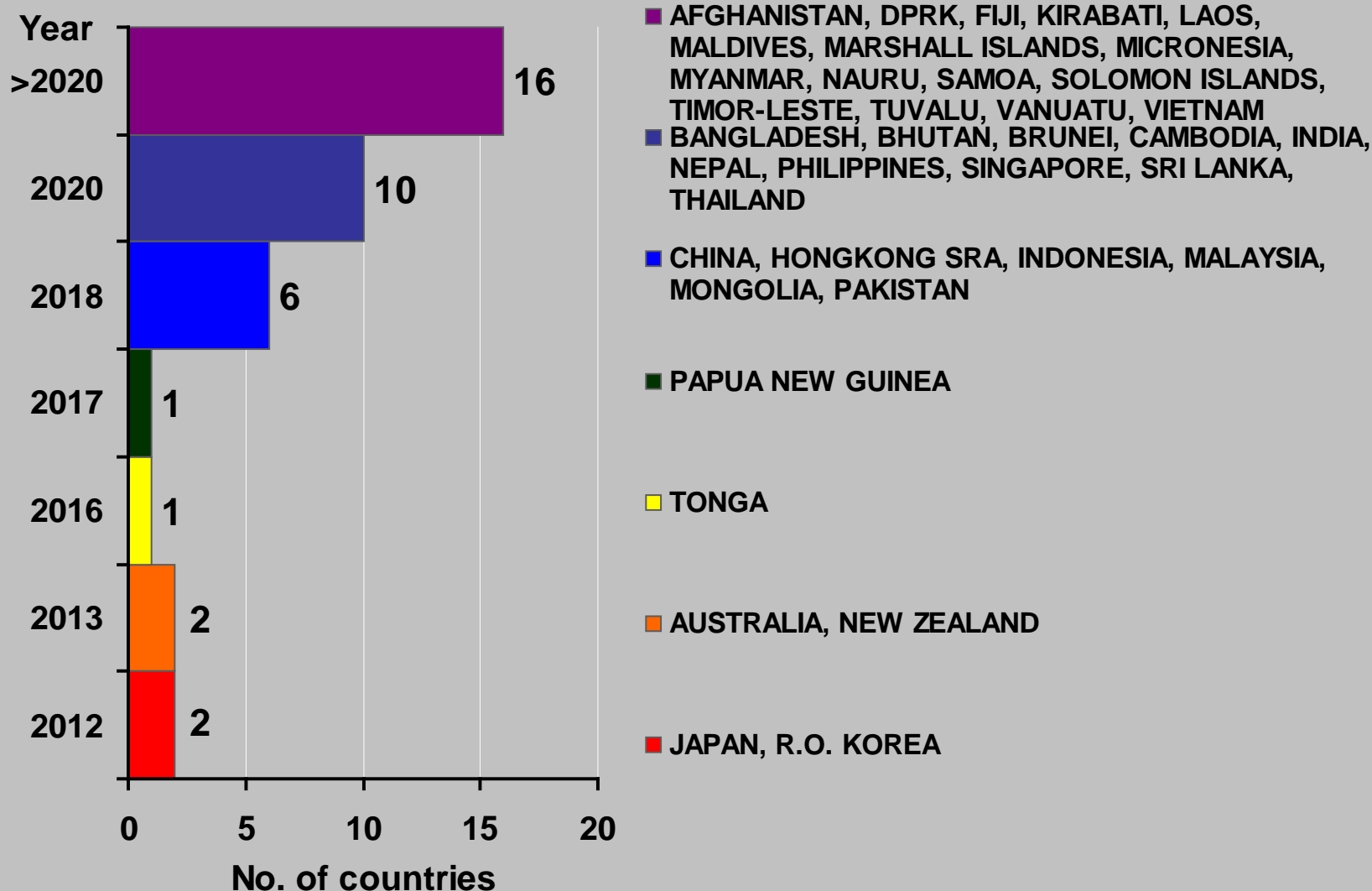Saudi Arabia
Serbia
Slovak Republic
Slovenia
Spain
Sweden
Switzerland
Tanzania

http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Pages/DSO/figures.aspx

Asia and the Pacific - Digital Switch Over (DSO)

Year

	No. of countries
>2020	16
2020	10
2018	6
2017	1
2016	1
2013	2
2012	2

No. of countries

- AFGHANISTAN, DPRK, FIJI, KIRABATI, LAOS, MALDIVES, MARSHALL ISLANDS, MICRONESIA, MYANMAR, NAURU, SAMOA, SOLOMON ISLANDS, TIMOR-LESTE, TUVALU, VANUATU, VIETNAM
- BANGLADESH, BHUTAN, BRUNEI, CAMBODIA, INDIA, NEPAL, PHILIPPINES, SINGAPORE, SRI LANKA, THAILAND
- CHINA, HONGKONG SRA, INDONESIA, MALAYSIA, MONGOLIA, PAKISTAN
- PAPUA NEW GUINEA
- TONGA
- AUSTRALIA, NEW ZEALAND
- JAPAN, R.O. KOREA

Source: National Roadmap Report 2010 - 2014

Digital Broadcasting Activities

- 24 Direct Country Assistance
- Conference/Seminar/Workshop/ Training in collaboration with ABU, AIBD, and CoE, over 1,000 participants from 33 countries to-date.
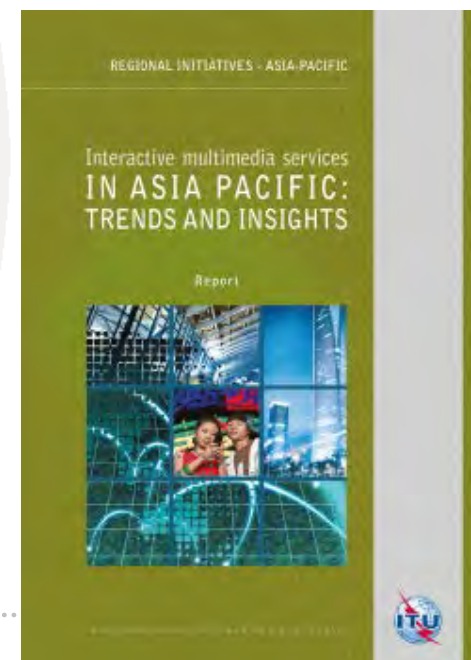
Publications – available by 3Q 2015

❑ Countries case study on DTTB implementation

- ❖ Australia
- ❖ Japan
- ❖ Thailand
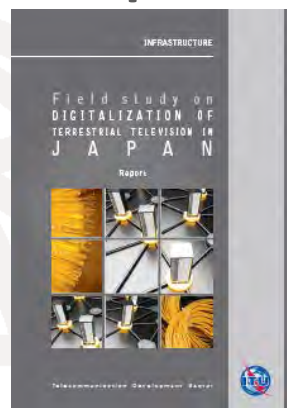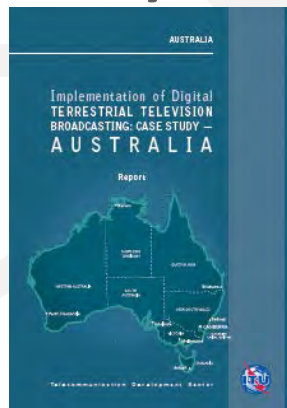
❑ Interactive Multimedia Services for Asia and the Pacific:
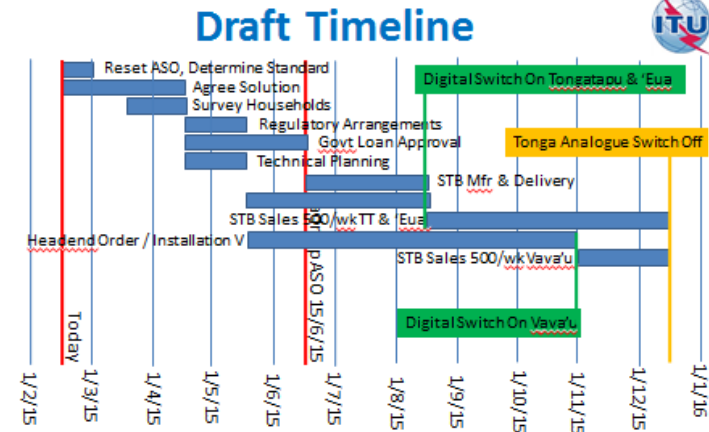
Trends & Insights

Implementation of Digital Broadcasting Transition

- 2015
  - 1Q Tonga
  - 2Q Bhutan
  - 3Q Papua New Guinea
  - 4Q Philippines

- 2016
  - 1Q Samoa

DTTB Challenges for Pacific Nations

- Population often widely dispersed
- Basic services are sometimes limited
  e.g. electricity
- Technical Skills Development
- Distance and time and
  cost of external support
- Basic telecommunications a priority
- Funding for new infrastructure
- Affordability of receivers

The Role of Government

- Establish Clear Policy Objectives across the ICT/Broadcast/Telecommunications Landscape

- Clear and timely developed regulatory framework to support Implementation at all Stages

- Source Infrastructure Funding

- Close collaboration with Regulator, service providers, industry, including communication and assistance to the Public

Conclusion

- Pacific Nations face many challenges on their journey to reduce the digital divide

- Comprehensive strategic planning is essential so that there is not inappropriate overemphasis on only one aspect (eg telecommunications, broadcast etc.)

- Proper Plans can assist in gaining financial and other support which will result in sustainable investment