

Framework for Deploying Community Television Broadcasting Services in Thailand



NBTC/ITU Project on Development of a Framework for
Deploying Community TV Broadcasting Services in Thailand



◆ **Final Version: December 2016**



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Importantly, the views and opinions expressed are those of the authors and may not necessarily reflect those of ITU or its membership. Any errors and omissions are those of the authors.

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1 Introduction

The essential elements of community television (CTV) are that it is community owned, community controlled and community operated. Further, it is a not for profit enterprise and is not an opportunity for revenue distribution, beyond the operations of the station. And further, it is local or regional with one community television station having one licence. Typically, a community television station is operated by volunteers, who are the content makers.

1.1 Community television in Thailand

The introduction of community television in Thailand is sanctioned, where it is stipulated that 20% of spectrum is reserved for community purposes (Act on Organization to Assign Radio Frequency and to Regulate Broadcasting and Telecommunications Services BE 2543 (2000), Article 20). The opportunity for this initiative in community television arises in the introduction of digital television and following the switch-off of analogue TV services.

The introduction of community television in Thailand will always be anticipated, planned and evaluated in the context of Thailand's experience with community radio. Over 8,000¹ 'community' radio stations went on air in the FM band, many stations without spectrum planning and without a broadcast licence.

The National Broadcasting and Telecommunications Commission (NBTC) is working through regularising and licensing these operations. What became apparent is that many of these community stations were in fact not community in character but rather operating as commercial for-profit enterprises. In planning the introduction of CTV what is essential, in developing a policy framework and regulation, is that the integrity of community broadcasting is understood, complied with, and promoted. This then becomes the foundation of community television licensing, content, operations and community engagement.

1.2 Report scope and structure

In this report a Framework (referred to as the Framework report) is outlined for licensing and operating these CTV stations or services. The report is considering the situation after a successfully completed CTV Trial and deploying the CTV services on the spectrum reserved for these services (i.e. the 20%). Practical guidelines for a CTV Trial in Thailand, are described in a separate report² (referred to as the Trial report). The Framework as presented in this

¹ Currently, over 5,500 FM radio stations are licensed, either by assigning a FM Trial license or having a spectrum authorisation (for the FM Main stations). Hence an unknown number, but estimated to be approximately 2,000, is broadcasting illegally. Approximately 30 and 500 broadcasters (respectively in the Bangkok province and elsewhere) were classified by the NBTC as Community broadcasters. For more details on the FM spectrum usage in Thailand, see ITU report "Analysis of congestion in the FM band", dated 18 May 2016.

² See ITU report "Practical Guidelines for Community TV Broadcasting Service Trial in Thailand", dated 2 November 2016.

report, is also based on findings and recommendations of an extensive benchmark study of CTV services in other countries³ (referred to as the Case Studies report).

The three CTV reports (Case Studies, Framework and Trial report) have been presented and discussed in a jointly organised ITU/NBTC Focus Group meeting, held in Hua Hin from 13 to 15 October 2016. Comments and observations from the meeting participants (including aspirant CTV broadcasters) were considered and processed in this final report version, as follows:

- (1) Text of the draft report was changed, and;
- (2) There where appropriate the report includes specific comments and observations, see the blue shaded text boxes.

The report covers the following aspects and is structured accordingly:

- (1) This Introduction;
- (2) Scope and Principle of CTV;
- (3) Relevant Policy, Regulation and Licensing;
- (4) Technology;
- (5) Content;
- (6) Finance Models and Governance Models;
- (7) Measures for Promoting the Service;
- (8) Regulatory Impact;
- (9) Conclusions and Recommendations.

2 Scope and Principle of CTV

Over the years, community media has allowed for a platform on which a diverse range of information and perspectives can be shared with most of those who had been excluded in private media audiences. This vital role has helped in shaping opinions of the public and informing communities of the broader context of events and important decisions leading out of minority to majority rule.

2.1 Changing scope of CTV

With the emergence of newer technologies and the reduction of income gaps in most societies, the role of community media has evolved to not only serve as a means of informing, but increasingly as a vital tool for engagement. The principles promoted by community media have expanded to include the needs of communities in a more interactive way through participation at this level. This has contributed towards building democratic institutions and a system of governance that equally reflects the values and aspirations of all in society.

Community media is primarily concentrated in the provision of radio, print and television services. Communities are also increasingly making use of digital media platforms such as various social media services, for example; community related Facebook pages and Twitter

³ See ITU report “Community TV Broadcasting: Case Studies”, dated 2 November 2016.

accounts. However, these platforms are not geographically bound and thus the description of community media in this section will be limited to those that are by definition delimited to specific communities. This report focuses only on community television services.

Community television has followed the introduction of community radio in many jurisdictions. In the United States community television has benefitted from the must-carry obligations of cable operators. Similarly, in Canada, cable operators have subsidised community channels. In Australia, until recently, community television stations have had free to air digital licences. The Australian Department of Communications has resolved to end these licences and encourage community television to operate as broadband stations. In the United Kingdom community television stations have taken advantage on recent legislation for the introduction of local television.

Community broadcasting (radio and television) exists in a broader broadcasting ecology that also includes commercial, state and public broadcasting sectors each with a distinctive and separate purpose. Commercial broadcasting aims to sell audiences to advertisers, has a mass market focus, is often part of a national network and is designed to return profits to share-holders.

State broadcasting is designed to reflect the priorities of government who fund the operation. It also is national in character, although may have some regional break-outs, and in news and documentary content, tends to be deferential to the perspectives of the government of the day.

Public service broadcasting is also government owned but operates under a charter that ensures independence from government in news and current affairs and is strong in coverage of arts and culture as well as information programming. Public service broadcasting is also national in coverage.

By contrast, community broadcasting is community owned, controlled and operated. It has a local or regional focus, is not for profit and run principally by volunteers, who contribute the content. Community broadcasting is not part of a national network and generally one licensee operates one station. Community broadcasting can be seen as being hyper-local.

Regulatory confusion occurs when this ecology of broadcasting is distorted or disturbed. Community broadcasters operating as for-profit commercial broadcasters are an example of this regulatory malfunction.

2.2 Defining the character of CTV

Community television, as with community radio, has a least three distinguishing characteristics:

- (1) Community television is community owned, community controlled and community operated.

The concept of community is understood in the *Act on Organisation to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services* BE 2553 (2010) ('The Organisation Act') as:

“community” means a group of people living in a common location, either in urban or rural areas, and shall include group of people that

is organised around common interest within a shared geographic location, or linked via communication. The group is attributed with social and cultural cohesion, collaborating continuously in lawful and moral activities under proper management and with the intent expressed on behalf of the group.

The community is generally expressed through a juristic person. In other words, some form of legal entity that represents the purpose, operation and governance of the community television station.

The concept of community ownership is critical. A community television cannot be owned privately or by means of a public company or by any arm or agency of government.

The notion of community control is equally as important. A community television station must be controlled by the management committee or board of the legal entity that holds the community television licence. Further, the control of a community television cannot be influenced by political, commercial or civil society interests. The station must demonstrate independence of management and control.

The concept of community operation is also a defining characteristic of community television. A community station is typically operated by volunteers from the community it seeks to serve. In some cases, a community television station may hire and remunerate one or more people in critical roles. It is common, for example, to hire a Station Manager (or director) who co-ordinates the operations and is responsible to the community television station board. It is not possible for a community broadcasting station to outsource its operations to another entity.

- (2) A community television station is not-for-profit.

In contrast to a commercial station, a community television station is constituted as a not-for-profit entity. That is not to say that a community station may not make a profit but any surplus funds must only be returned to the operations of the community station and not to any other individuals or corporate entities. If the community television station hires staff, they must not be remunerated at higher than market rate for an equivalent position in the Thailand media sector.

- (3) A community television station is local or regional.

A community television licence is allocated to a locality or region. Given the multiplex structure of digital television licence allocations, it is likely that a community television licensee would cover several provinces. Such a licence would be for one community television service and it is not possible for a community television station to own more than one community television licence.

In contrast to the national service area of state, public service and commercial broadcasting, community broadcasting is essentially local and regional.

3 Relevant Policy, Regulation and Licensing

The integrity of the Thai broadcast system will depend on each broadcasting sector complying with their distinctive purpose and not attempting to appropriate the distinguishing purpose of another broadcast sector.

There are several approaches to media regulation and the relationship of the media to the state. Regulation is related to the concept of promoting the public interest, responding to market failure, intervening to prevent harm and promoting public policy.⁴ Regulation of the media tends to be culture and state specific. Where there is an emphasis on national unity and social cohesion there is a tendency for greater acceptance of state intervention. Where there is an emphasis on media freedoms and individual rights there is some reluctance to accept a role for the state in establishing media accountabilities.

The challenge for legislators and media regulators is that the media is rapidly changing and often leaving law and regulation behind and redundant. Media convergence means that it is no longer viable to regulate according to conventional platforms of radio, television, and print. Digital technology and the spread of broadband Internet often means that media operations have to be multi-platform to survive and that the new technologies are no respecters of borders.

3.1 Tools for Media Regulation

Media regulation can come in many forms and shapes. Although four elementary approaches can be distinguished, which can be positioned on a continuum. These four approaches are depicted in Figure 1.

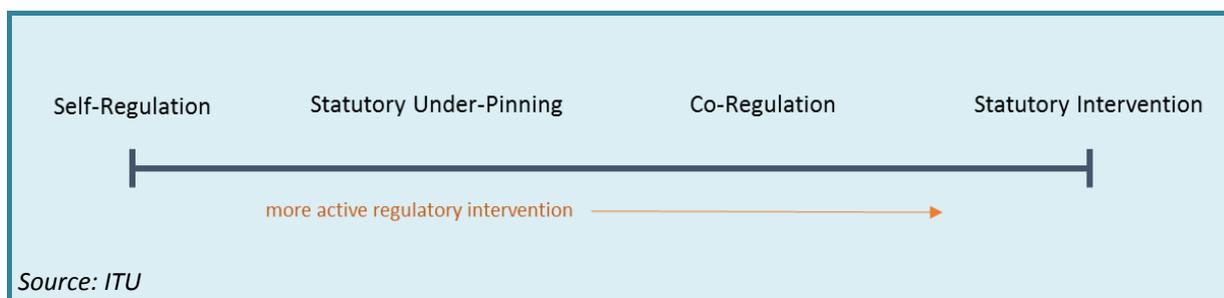


FIGURE 1: FOUR ELEMENTARY APPROACHES TO MEDIA REGULATIONS

The four approaches can be characterised as follows:

- (1) Self-Regulation. No license or authorization required to disseminate (including broadcasting) media content (including News). Media industry parties are recommended to organize themselves and publish their own Code of Practice. No approval of the National Regulatory Authority (NRA) needed for this Code of Practice (which normally would include a procedure for complaints handling - but this is not required, only recommended);

⁴ Arie Freiberg, *The Tools of Regulation* (2010), 9

- (2) Statutory Underpinning. As 1, but when the industry parties either fail to organize themselves, or publish a Code of Practice and many (grounded) complaints are issued to the NRA (or alternatively, registered under their Own code of Practice), the NRA will intervene. What is many and grounded is to the good judgement of the NRA. If the NRA decides to intervene, it will issue additional media regulations (which may address only individual companies or are intended for industry-wide application) to resolve the complaints/problems and avoid them happening again. So the NRA acts as a back-stop in the case Self-Regulations fails. Under this regulatory approach the NRA needs to be authorized (by law) to intervene. This form may evolve into Co-Regulations if the problems are considered structural;
- (3) Co-Regulations. The media industry is asked to organize themselves and draft a Code of Practice. This Code of Practice has to be approved by the NRA before the media parties can deploy their media activities. The NRA may stipulate what topics or elements the Code of Practice needs to cover;
- (4) Statutory Intervention. License or authorization is required from the NRA before any media activities can be deployed. This entails that the NRA has to formulate and publish its own 'Code of Practice' (or Notification or any other instrument which covers the topics of the Code of Practice) to which media companies have to comply (and prove that they comply) before a license or authorization can be issued.

It is noted that the NRA can apply for different platforms (like Internet, Broadcasting, Printed media) different tools. Also the selection of a tool can differ for different types of content. For example, News can be exempt from Self-Regulations and is either Co-Regulated or needs a license (Statutory Intervention).

In the following Sections recent approaches to media regulation reform in Australia, New Zealand and Singapore are discussed. Followed by an appraisal of what the options are for media regulation in Thailand, particularly for community television.

The Australian, New Zealand and Singapore reviews of media regulation have crafted differing approaches to designing platform neutral intervention.⁵ Self-regulation, co-regulation, statutory intervention and statutory 'underpinning', plus no specific media regulation at all, are part of the suite of regulatory options.

Focus Group meeting: *Participants prefer a form of Co-Regulations where by the NBTC assists the CTV broadcasters in drafting their own Code of Practice. Participants also added that the NBTC should have the authorisation to intervene (Statutory Underpinning) if for example the Code of Practice is not followed by the CTV broadcasters. Preferably this Code of Practice would be drafted under the leadership of a single CTV Industry Association (to be established).*

3.1.1 Self-Regulation

⁵ Australian Government, Department of Broadband, Communications and the Digital Economy, *Convergence Review Final Report* (2012), Canberra; New Zealand Law Commission, *The News Media Meets 'New Media': Rights, Responsibilities and Regulation in the Digital Age* (2013), Wellington; Singapore Media Development Authority, *Media Convergence Review* (2012), Singapore

In contrast to many Asian states, where there is an emphasis on national values and social cohesion, in Western liberal democracies the conventional approach to media regulation is that the press is self-regulated through press councils and the electronic media by various forms of statutory intervention. The argument for this binary approach is that the electronic media is dependent on the allocation of public assets in the broadcast spectrum. However, the efficacy of the industry appointed press councils has been called into question by both Finkelstein and Leveson.⁶ Phone hacking by journalists in the UK is emblematic of a failure of press self-regulation. The argument based on broadcast regulatory exceptionalism now lacks utility as broadcasting now does not depend on the allocation of free to air spectrum.

The argument promoting self-regulation is centred around the relationship between the state and the media. State intervention, it is argued, chills the freedom of the press. Kim Williams, then Chief Executive of News Limited's

Australian interests warned against the 'bludgeon of state regulations'. But both Finkelstein and Leveson found self-regulation through press councils wanting. Finkelstein argued that the press councils needed to be open to more than the press. Membership of a press council should not be just left to the choice and discretion of a media enterprise. There should be incentives and privileges that are associated with membership.

The Australian Convergence Review, while arguing for statutory intervention in information content, separates the regulation of news as being overseen by self-regulation. The Convergence Review has it both ways. Maybe this is a reflection of the political sensitivity of the statutory regulation of news in Australia.

The self-regulatory Australian Press Council in its submission to the Convergence Review outlined the current regulatory malaise (DBCDE (2012): 49):

The rapidly growing risks of manifestly inconsistent standards being applied between the two regulatory systems and of confusion and uncertainty about their respective areas of responsibility can cause considerable unfairness for complainants, would-be complainants, publishers and broadcasters. They can weaken the efficiency, effectiveness and credibility of regulators.

The Convergence Review came up with a structure, still self-regulatory, to operate across all media platforms. The regulator would be established by the industry to enforce a media code designed to promote fairness, accuracy and transparency in professional news and commentary. This news standards body would be independent of government but legislation would require providers of news and commentary that meet the threshold of being a Content Service Enterprise to be covered by the independent convergent regulator (DBCDE (2012): 51).

While significant parts of the industry loudly rail against state intervention in overseeing the media, the track record for self-regulation appears patchy. A principal difficulty has been the lack of obligation to participate, the appearance of being industry captured, the lack of resources to effectively operate, and the lack of remedial outcomes. In the online and digital environment there is a proclivity towards self-correction and self-moderation. The online community will self-moderate comments that lack accuracy or demonstrate bad taste. But

⁶ R. Finkelstein, Report of the Independent Inquiry into the Media and Media Regulation (2012) Australian Government, Canberra, 235; Lord Justice Leveson, *An Inquiry into the Culture, Practices and Ethics of the Press*, (2012) London, 1576

the focus of a convergent media regulator is different. The priority is to identify cross platform solutions that deliver news and information that can be trusted, that delivers diversity of sources and ownership and ensure there are local voices.

3.1.2 Co-Regulation

The established approach to co-regulation is to meld self-regulation with statutory regulation. The framework of Australia's *Broadcasting Services Act 1992* (Cth) is an example of this regulatory strategy. Industry associations such as Free TV Australia, Commercial Radio Australia and the Community Broadcasting Association of Australia (CBAA) submit their content codes to the Australian Communications and Media Authority (ACMA) for approval. Once this approval is obtained, that industry code becomes the statutory instrument that the regulator uses to respond to complaints about content.

Arguably the most nuanced form of this co-regulation is seen in the New Zealand Law Commission's March 2013 Final Report, *The News Media Meets New Media*. Here the self-regulation of news content is steadfastly maintained but its context is set by statutory definitions of who is the news media and who is a journalist. This is ground breaking work that contributes much to the debate as to what is appropriate regulatory intervention in a converged media world.

The NZLC saw it as critical to come to a clear understanding of who is the news media. It proposed that in order to be eligible for statutory exemptions and privileges available to the news media, an entity or individual would have to meet the following criteria:

- (a) a significant element of their publishing activities involves the generation and/or aggregation of news, information and opinion of current value;
- (b) they disseminate this information to a public audience;
- (c) publication is regular and not occasional, and;
- (d) the publisher is accountable to a code of ethics and a complaints process.

This definition of the "news media" would not be created by stand-alone statute but would be reflected in existing legislation that makes reference to the news media (NZLC (2013): 72-73). A critical linchpin of this definition is that it is tied to news media legal privileges and exemptions. A number of statutes, for example, grant news media reporters the right to attend court hearings which other members of the public have no right to attend. In criminal proceedings in relation to suppression orders they have the right to be to hear submissions (*Criminal Procedure Act 2011* (NZ) s 210 and 283 cited by NZLC (2013): 40).

3.1.3 Statutory Under-Pinning

Another form of co-regulation is the notion of self-regulation supported by statutory underpinning, where the Regulator acts as a backstop to media regulation if self-regulation should fail. However, the idea of state involvement in the regulation of the media, particularly the press, was rejected very firmly by the UK press who argued freedom of the press would be compromised by any sort of state intervention (Leveson (2102): 1673).

The Leveson Inquiry was not born out of any anxiety about devising a convergent media regulator. Rather its focus was on media ethics and the behaviour of some journalists in hacking into the voicemail messages of private citizens. But the response of Leveson has

implications for a convergent media environment. While firmly championing media self-regulation Lord Justice Leveson wanted some guarantee (under-pinning) that this self-regulation would deliver.

If the press were not able to achieve independent self-regulation, there should be a backstop regulator required to fulfil the task. It was Leveson's expectation that the converged regulator Ofcom be given this role (Leveson (2012):1794). This is what is meant by statutory underpinning. The reaction to these proposals from government and the industry was generally hostile. That hostility extended to Prime Minister David Cameron's proposal that while statutory underpinning was not acceptable the mechanism of underpinning through a particular UK instrument of a Royal Charter did not amount to state intervention.

3.1.4 Statutory Intervention

The announcement by Singapore's Media Development Authority (MDA) that online news sites would now need a licence to publish is an example where the state seeks to achieve regulatory parity by direct intervention.

The MDA is a converged statutory media authority formed in 2003 by the merger of the Singapore Broadcasting Authority, the Films and Publications Department and the Singapore Film Commission. The MDA has merged with the Infocomm Development Authority to form the further converged Infocomm Media Development Authority (IMDA) from 1 April 2016. While there is a commitment to a strategy of co-regulation, there appear strong expectations that the media is socially responsible and publishes content that meets community standards. There are central objectives of the media to promote social cohesion and inclusiveness as well as nation building.

From 1 June 2013 online news sites that reported regularly on issues relating to Singapore and have significant reach required an individual licence from the MDA. This licence will be required if:

- (a) The site reports an average of one article a week on Singapore news and current affairs over a period of two months;
- (b) The site is visited by at least 50,000 unique IP addresses from Singapore each month over a period of two months;
- (c) Sites are expected to act within 24 hours to remove content that breaches the Internet Code of Practice, as notified by the MDA;
- (d) A bond of \$50,000 is required that mirrors the bond of niche TV broadcasters.

It will be of interest to see the regulatory response of the MDA if news sites publish from outside Singapore. In less open states the response has been to attempt to block sites.

Statutory intervention does not mean always the licensing of Internet news sites. In Australia and the United Kingdom, for example, the converged media regulator requires compliance with statutory news standards of accuracy and fairness for the electronic media. What is distinctive in the Singapore initiatives is that statutory regulation has been applied to the Internet and includes the licensing of news sites.

3.1.5 Reliance on the Laws of General Application

There is an alternative argument that the best response to regulating for a converged media environment is not to have any media specific regulation at all. The laws of general application, including defamation, contempt, copyright, competition and privacy law, so it is argued, adequately regulate the new converged media environment.

In submissions to the Convergence Review, major Australian communications enterprises such as Telstra and News Limited argued that the online environment, with its low barriers to entry compared with traditional media, has brought a diversity of voices therefore negating any requirement for ongoing regulation of media ownership. The Review rejected this argument. First, in the online environment a small number of media organisations remain the most influential sources of news and commentary. And second, even if the current level of diversity is adequate, this could change. Large media companies could become even more influential and new media enterprises could become the new gatekeepers (DBCDE (2012): 6).

There is an attraction to the law of general application argument. As technology and audience behaviour drive media convergence even further, there is something compelling about converging media regulation with broader and generic regulation of industry and commerce.

However, such a disposition overlooks the particular role and responsibility of the media in conveying news and information. There is a particular role for the media that cannot be subsumed into the general flow of a nation's industry. This is not to say that regulatory overlap will not continue between laws of general application and specific media regulation.

3.2 Regulatory settings for CTV in Thailand

The framework for media regulation in Thailand is firmly established by statute with some opportunity for self-regulation through broadcasting industry Ethics Committees.

The legislative and regulatory instruments for Thailand broadcast media, directly relevant for community television, include⁷:

Act on Organisation to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services BE 2553 (2010)

Broadcast Business Act BE 2551 (2008)

Broadcasting Master Plan (2012-2016)

Notification of the National Broadcasting and Telecommunications Commission on Licensing Criteria and Procedures for Radio or Television Broadcasting Services BE 2555 (2012) including:

Annex B:

Qualifications, Characteristics of the Schedule, Program Proportion and Revenue Generation Radio or Television Broadcasting Services: Community Broadcasting Service

⁷ There are numerous other Notifications addressing radio and television broadcasting. For a full list please consult <https://broadcast.nbtc.go.th/home/>

Notification of the National Broadcasting and Telecommunications Commission on Criteria for advocating communities that are ready to apply for a license and Criteria for advocating high quality community services (draft). It is noted:

This Notification is intended for community radio stations. However, the NBTC has indicated that the criteria for community television stations will be derived from this Notification.

The independent media regulator, the National Broadcasting and Telecommunications Commission (NBTC), has the power to prescribe characteristics of sound and television broadcasting (s27 (3), 'Organisation Act').

The draft regulations in Appendix 1 are an attempt to contribute to this process in relation to community television. What follows, first, are the legislative requirements for community television and, second, a draft proposed regulatory outline for the introduction and operation of community television in Thailand (Appendix 2).

A regulatory regime for community television should include:

- (a) The defining and distinguishing elements of community television;
- (b) The licensing requirements for community television;
- (c) The governance of a community television station;
- (d) Content regulation in community television;
- (e) Dispute resolution and responding to complaints about content.

A key principle in the development of this regulatory regime is that there should be consistency and harmony between the regulation of both community radio and community television. While acknowledging the challenging history of community radio in Thailand from a regulatory perspective, nevertheless it will be counterproductive to have separate core requirements for community radio and community television.

3.2.1 The defining and distinguishing elements of CTV

The *Broadcasting Business Act (2008)* ('BBA') indicates that a licence to operate a community broadcasting station is for the same purpose of a public service business, 'providing that it is beneficial in response to the needs of the recipient community or locality' (s10 (2)).

A public service business as three purposes:

- (1) For the promotion of knowledge, education, religions, arts and culture, science, technology and environment, agriculture and promotion of other occupational extension, health, sanitation, sports or enhancement of quality of life of the people (s10 (1)(a));
- (2) For national security and public safety (s10 (1)(b));
- (3) For the dissemination of news and information to promote better understanding between the government and the general public, and the parliament and the people; dissemination of news and information which may promote the distribution and provision of education to the people on the democratic regime of government with the Monarchy as Head of State; provision of news and information services beneficial for the disabled and the underprivileged or

interest groups, who conduct non-profit activities or provision of news and information for other public benefits (s10 (1)(c)).

In addition to these legislative provisions it is proposed that the following (as already outlined above) distinguishing elements for community broadcasting be reinforced and incorporated in regulation (see Appendix 2):

- (1) Community broadcasting is community owned, community controlled and community operated;
- (2) Community broadcasting is not-for-profit;
- (3) Community broadcasting is local or regional.

3.2.2 The licensing requirements for a CTV station

The BBA (s 12) indicates that an applicant for a community radio or community television licence shall be an association, foundation or other juristic person established under Thai law which is a non-governmental organisation and has the objective to operate a non-profit business for the public benefit.

Alternatively, a licence applicant for community television may be a non-juristic group of local residents who form a group to strengthen the community.

Section 12 provides that a community television or radio operation shall be appropriate for service provision in accordance with the nature prescribed by the NBTC. This provision is an important statement of powers of the NBTC to develop regulations for the operation of community television. Section 12 concludes that such a community service should be responsive to the diverse needs of people in the community or locality, including preventing a business take-over.

This responsiveness to the diverse needs in the community is reinforced as a licence condition in BBA s 17 (2). The issue of a licence for community services shall take due regard to diverse needs, resources and public benefits of the community using frequencies allocated to the civil sector.

Notification of the NBTC on Licensing Criteria and Procedures for Radio and Television Broadcasting Services BE 2555 (2012)

Annex B: Qualifications, Characteristics of the Schedule, Program Proportion and Revenue Generation Radio and Television Broadcasting Services: Community Broadcasting Service ('Annex B')

The particular requirements for a community television licence applicant are prescribed in Annex B, which is an annex to the Notification on Licensing Criteria.

The legal framework for the operation of community broadcasting is the Thai Constitution, legislation, NBTC notifications and regulations, together with self-regulatory codes developed by an industry Ethics Control Committee.

We shall now outline the community television licensing requirements as outlined in Annex B then later propose some community television regulations for consideration by the NBTC.

Annex B

Section 1 outlines the qualifications expected of a licence applicant for a community television service.

The operators of a community broadcasting service must be either an association or foundation or juristic person established under Thai law. They must not be a state agency and can also be a group of not less than five local people who have demonstrated community service over a minimum of two years (s 1.1).

By way of commentary on these provisions, it is recommended that the NBTC consider a preference for the legal form of a community television station licensee as being an association. An association has a defined membership, who elects the association board. By contrast a foundation is often self-perpetuating without a membership structure, and a non-juristic group of local citizens would be personally liable for the activities of a community television station.

An applicant for a community television licence is required to include in its leadership individuals who can demonstrate at least two years of continuous community strengthening activities in one or more of the following 13 areas which advance the public interest:

- (1) promotion of democracy and community empowerment;
- (2) enhancement of civil rights;
- (3) creation of participation of persons with disabilities, disadvantaged groups and marginal people;
- (4) elimination of poverty in the community and occupational promotion;
- (5) creation of good governance and awareness of community liability;
- (6) promotion towards achieving development goals such as health, sanitation, sports, education, religion, arts and culture, science, technology and environment, agriculture, local wisdom, lifestyles;
- (7) prevention and mitigation of public and natural disasters;
- (8) peace making and conflict resolution;
- (9) empowerment of women, persons with disabilities, minority and disadvantaged groups;
- (10) enhancement of people's quality of life;
- (11) enhancement of cultural diversity;
- (12) promotion of environmental conservation and efficient utilisation of resources in the community;
- (13) opening an area or a forum for eliminating problems encountered by the community, conducting activities for public interest, or providing any useful information for other interest (s 1.1.1 (1)-(13)).

Annex B then outlines indicators of service participation including organising the establishment of a community station (s 1.1.2 (1)-(4)); being a board member of a community station preparation group; being involved in local content making; or other organisational activities in preparation for the community television station. Further, the persons in control of a community television licence must be Thai citizens (s 1.2) or not have had a licence revoked in the circumstance of operating another community station (s 1.3) or must not be a member of the House of Representatives or the Senate or a local council or being a local administrator, politician or state official (s 1.4).

4 Technology

The critical components of a CTV station or broadcaster are:

- (1) Technology for content production, including cameras, lighting, audio, editing and graphics software, content ingesting and archiving, and;
- (2) Technology for Digital Terrestrial Television Broadcasting (DTTB), including encoding, multiplexing, transport links and transmitter sites.

Figure 2 illustrates these two critical components as the first two conceptual blocks in the digital television broadcast chain.

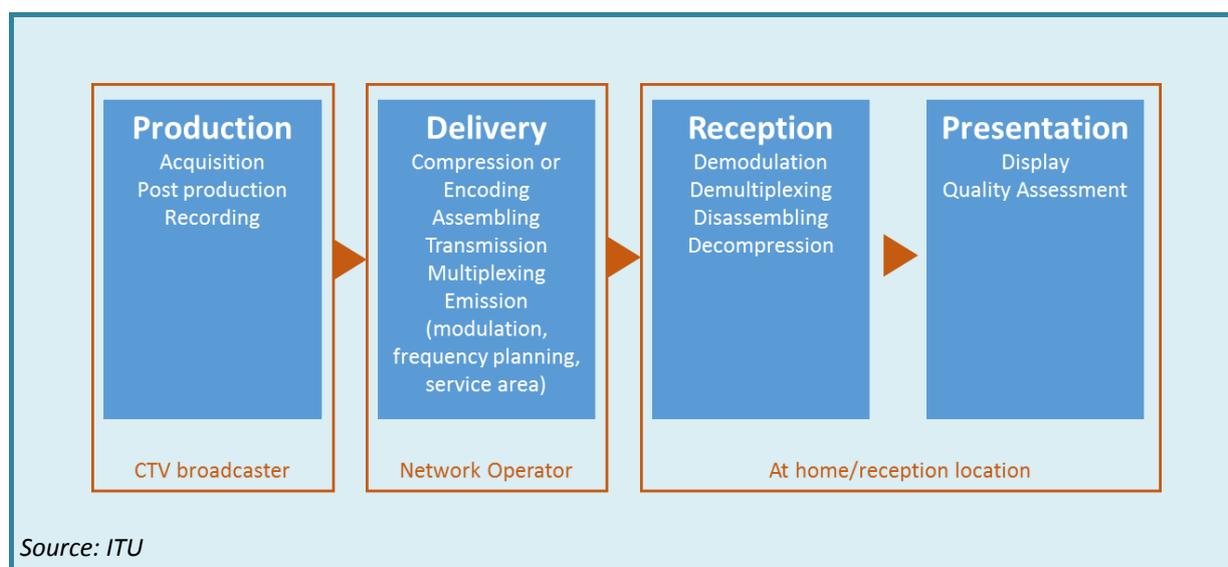


FIGURE 2: CONCEPTUAL BLOCK DIAGRAM OF THE BROADCASTING CHAIN

4.1 Production and distribution costs

For setting up a CTV station two key cost components should be covered, directly related to the first two conceptual blocks in Figure 2. The investments in content production (i.e. Capital Expenditure – CAPEX) and distribution fees to be paid for broadcasting the CTV service in a Local Area (i.e. Operational Expenditure – OPEX). It is noted that besides these two key cost components other costs should be financed too, such as wages of paid personnel, transport, travel, marketing, administrative costs and any content rights (in case content is used or purchased from third party providers).

4.1.1 Production CAPEX

Some aspirants for a community television license in Thailand have identified initial capital costs (CAPEX) in a range of THB 730,000 to THB 1.2m⁸. This budget is for a low-end

⁸ In the Trial report, in Appendix 4, three content production solutions are described in detail. They range in price between THB 625,000 and THB 1,035,000 (non-negotiated price estimates).

community television operation but excludes any budget for distribution. It also does not include any property costs (including housing, cooling and electricity facilities), asset management systems and other IT equipment for supporting workflows and administrative processes.

For more details on content production processes and functionality, see Section 4.2. For more details on budget needed for content production (and distribution), see ITU report “Practical Guidelines for Community TV Broadcasting Service Trial in Thailand”, section 5.3

4.1.2 Distribution OPEX

As distribution of CTV services can only be carried out by a separated licensed Network Operator (and not a CTV service provider or broadcaster), the cost for distribution will be operational expenditure (CAPEX); i.e. a monthly distribution fee to be paid to the licensed Network Operator⁹. For deploying DTTB services throughout Thailand, a network and deployment plan has been developed¹⁰. These plans include five National networks (or layers) and one layer (the sixth multiplex) for providing CTV services in 39 defined Local Areas (or CTV areas). No Network License for the sixth multiplex has been assigned and hence no publically available distribution fees are available¹¹.

From the published distribution fees for the distribution of National DTTB services and the network planning for the sixth multiplex (i.e. the CTV layer), an initial estimated can be made of the distribution fees for CTV services in each of the 39 defined CTV areas.

The four licensed DTTBB Network operators for the National DTTB services have submitted their reference offers to the NBTC for approval. The NBTC approved all offers and the average distribution charges for a fully deployed network, i.e. 171 sites¹², are included in Table 1.

⁹ At the moment of writing this report, no legal entity has been assigned a Network license for the sixth multiplex, the designated network for carrying CTV services in 39 defined Local Areas throughout Thailand.

¹⁰ See ITU report “DTTB Plan 3.3, after analogue TV switch-off and during transition”, dated 25 August 2015 for the network planning (including the frequency assignment and site characteristics of each DTTB site) and ITU report “Options for the deployment schedule of Additional DTTB sites”, dated 12 May 2015 (including the deployment order and conditions for the additional DTTB sites). It is noted that deployment order of the 39 Main sites was already given and that in total 132 Additional DTTB sites were planned to provide 95% coverage throughout the 39 Local Areas combined.

¹¹ A licensed Network Operator has the obligation to provide the NBTC with a Reference Offer (including the distribution fees). This offer has to be approved by the NBTC and subsequently published.

¹² It is noted that 11 additional sites are planned for improving Portable Indoor (PI) reception, bringing the total to 182 sites. Here it is assumed that the published prices correspond to the 95% rooftop or fixed (FX) reception requirement, which takes 171 sites.

TABLE 1: AVERAGE MONTHLY DISTRIBUTION CHARGE PER DTTB SERVICE

DTTB service type	Monthly charge (in m THB)
High Definition	14.0
Standard Definition	4.6
<i>Source: Bangkok Post and The Nation</i>	

The CTV services are planned for Standard Definition (SD) and up to 12 SD services can be carried in a multiplex¹³. So for a fully loaded multiplex, carrying 12 SD services and hence having 12 CTV stations as paying clients, the monthly charge per CTV service would be 4.6m THB. However, this charge is assumed to be for 171 sites. The CTV areas have a much smaller number of sites; i.e. the smallest CTV area comprises just one site and the largest 12 sites¹⁴.

This would result in a minimum CTV monthly distribution fee of $(4.6/171*1 =)$ 27k THB per SD services for CTV areas with just one site and a maximum of $(4.6/171*12=)$ 323k THB for the CTV area with 12 sites. In Appendix 3 an overview is given of the sites per CTV area and the calculated CTV distribution fees for each CTV area, as well as the applied calculation assumptions.

It is important to emphasise that the number of CTV sites, and hence the distribution fee to be paid, does not directly correspond to the number of people or geographical area covered. In highly populated areas, the distribution fee per pop is much lower. Hence, from an economic point of view it would matter to select the CTV areas carefully. In Appendix 4 an overview is given of the CTV areas and their coverage.

4.2 Production facilities

In this Section first the activities, workflows and functionality of contemporary TV content production are covered. Secondly a first scoping of CTV broadcaster’s activities and the required functionality are presented.

4.2.1 TV content production

In contemporary TV content production multiple digital sources are ingested (like from studio cameras, internet streams, audio/video files, satellite feeds¹⁵) and prepared for publication on a wide range of distribution platforms (like Internet, mobile, cable, satellite and also DTTB). In such an eco-system all TV content is digital and hence the core of modern TV production is the management of digital or media assets. Digital assets can be easily stored, edited and repurposed.

¹³ The NBTC has published technical guidelines for the deployment of DTTB services, including the loading of multiplexes. A multiplex can carry (a) 2 HD and 6 SD services, or (b) 3 HD and 3 SD or (c) 12 SD services.

¹⁴ CTV areas Trang and Satun just have one site, whereas CTV area Chiang Rai has 12 sites.

¹⁵ Including satellite feeds from Outside Broadcasting (OB) vans for news coverage at location, as well as satellite broadcast from international or third party broadcasters.

Figure 3 shows the core of modern TV production with a Media Asset Management (MAM) system in the middle. This process is often referred to as the media or digital content workflow. The 'Deliver' component in Figure 3 correspond to 'Delivery' block in Figure 2 (in the case of DTTB delivery).

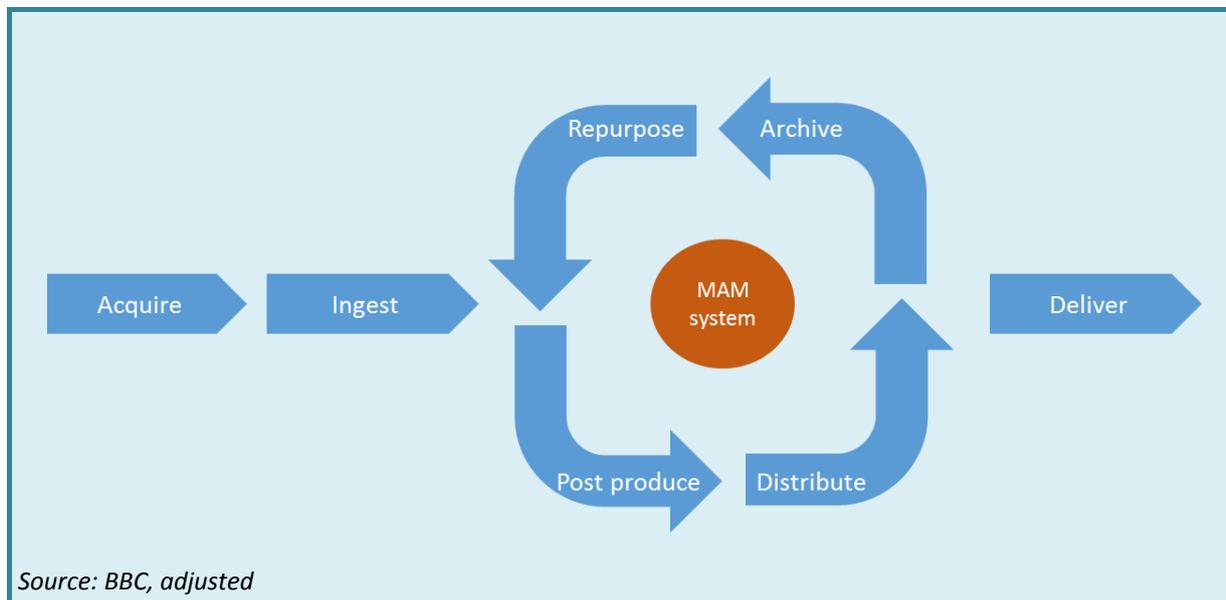


FIGURE 3: CORE OF CONTEMPORARY TV PRODUCTION

The media workflow as illustrated in Figure 3 is supported by two other processes or workflows:

- (1) *Production workflow* or process, split in:
 - a. Pre-production, including the activities concept creation (e.g. for a new program or soap), pitching (to get the concept accepted for publication and financed), concept development (detailing story boards, resource planning, etc.) and sourcing (booking actors, presenters, crews, studio facilities, etc.);
 - b. Post-production, including the activities asset management (for the purpose of sales and publication), production reporting (for example for the purpose of collecting content rights/payments) and development (for example for the purpose of repurposing content for different markets/audiences);
- (2) *Metadata workflow* or process, including content scheduling, play-out automation (for example for 24/7 broadcasting), Electronic Program Guide – EPG – generation and reporting (for example for the purpose of paying content rights/fees and reporting to the Regulator).

Like with the media workflow, which is often based on a MAM system (see Figure 3), these two supporting process can be fully automated and integrated with the MAM system. Many software and hardware suppliers offer solutions that either cover the full functionality of all three workflows or just parts of a workflow's functionality.

It is expected that CTV broadcasters will start with a solution that will just cover the core functionality of the media workflow, for example just studio recording, mixing of camera

and microphone outputs and generating a SDI feed¹⁶. The two supporting workflows are carried out by hand and simple means (such as a standalone PC with MS Office). At later stages, additional functionality can be automated and integrated with existing IT systems. Hence interoperability between different system components (sourced from different suppliers) is an important technical factor to consider. More important is however to have the scope of the CTV broadcaster's activities, and hence the workflows, clear and defined for the medium to long term.

The three workflows and their automation complexity is driven by five key factors. These factors are interrelated and the five combined drive the automation and hence system complexity. The five key factors are:

- (1) **Type of content sources.** Content sources can range widely from *studios, internet streams, audio/video files, satellite feeds* from third party broadcasters but also from Outside Broadcasting (OB) vans. The technical facilities required can range from some simple cable inputs from cameras to advanced Audio/Video (A/V) routers with multiple input and output ports;
- (2) **Types of programs.** Program types can be categorised in:
 - (a) *Live broadcasts* (like news coverage, sport and cultural event coverage) or *Pre-recorded* (and stored) content (like soap series or educational programs). Live broadcasts, if on-location, require technical facilities to bring the recording instantly to the studio. These contribution facilities can range from a simple mobile internet connection to a OB-van with a satellite uplink station (and a downlink at the studio side);
 - (b) *Studio recorded programs/content* (like talent shows or news bulletins) or *On-location* recorded programs (like holiday programs or coverage of local community events). Studio recorded programs can make use of stationary propping (objects/decoration used on stage), lighting, cameras and editing facilities whereas facilities for on-location recording should be portable. Although portable facilities can also be used for studio recorded programming, their use will constrain the scheduling of programs (for the simple reason that the same equipment cannot be used at two different locations at the same time);
- (3) **Storage and editing requirements.** Storage requirements can include *direct storage and editing of live broadcasts, Non-Linear Editing (NLE)* of recorded content to only *storage of as-broadcasted*¹⁷. The technical storage facilities can therefore range from USB key recorded and standalone PC-based editing to advanced database servers with metadata (for searching, retrieving and cataloguing) and backup management;
- (4) **Delivery platforms.** Different delivery platform will also imply different *receiving devices* and *interactivity* and hence platforms can range from DTTB, web streaming

¹⁶ The recommended interface with the encoders, which are located in the multiple centre of the licensed Network Operator, is the Serial Digital Interface (SDI) with a data rate of 270 Mbit/s. The SDI interface for digital broadcasting is described in Recommendation ITU-R BT.656.

¹⁷ An important editing requirement is that it is non-destructive; i.e. the original or source content is not affected by edits and can always be recouped. Edits are stored separately and the 'edited' content is rendered instantly when played out (by combining the edit list and source content). For modern digital content management non-destructive editing has become the standard.

(Over-The-Top, i.e. OTT delivery), Video-On-Demand (VOD)¹⁸, to mobile delivery to smartphones with various degrees of interactivity. For mobile delivery the presentation format and encoding bitrates can be different than, for example, for DTTB. For VOD the delivery is file based, retrieved by the consumer, rather than linearly broadcasted. Interactivity can include a broadcast synchronized internet stream for the second screen or as screen overlays/inserts on a smart TV set¹⁹. Hence the technical facilities needed can range from a simple SDI input (to interface with the encoder in the DTTB multiplex centre) to an advanced MAM system repurposing/transcoding the source content for multiplatform delivery;

- (5) **Regulatory requirements.** Regulatory requirements can be categorised as follows:
- (a) *Logging of broadcasted content.* These broadcast logs may be used by the Regulator to check content requirements as stipulated in the broadcast or service license (such as number of minutes of advertising and prescribed editorial programming);
 - (b) *Logging of broadcasting events.* These logs may be used to check if the required service levels have been met, for example service availability. If the broadcaster delivers its SDI feed to a DTTB Network Operator (NO), this logging of broadcasting events may also be required from the NO, as the NO may for example have a service availability requirement²⁰, which is not only dependent on his own network availability but also on the broadcaster' SDI feed availability;
 - (c) *Pre-monitoring or censoring of live broadcasts.* Regulators may require that live broadcasts are first censored before aired, by delaying the live broadcasts for 5 to 10 seconds before airing. In this small timeframe the live broadcast can then be checked for inappropriate content.

4.2.2 CTV content production scope

CTV broadcasting has distinct characteristics which should be reflected in the CTV broadcaster's activities. As outlined in Section 2.2, CTV broadcasting has three distinguishing characteristics:

- (1) Community television is community owned, community controlled and community operated;
- (2) Community television station is local or regional;
- (3) Community television station is not-for-profit.

¹⁸ VOD in technical terms, can be defined as that content is retrieved by the consumer from a structured content library.

¹⁹ The Hybrid Broadcast Broadband TV (HBBtv) is an international standard that is supported by a wide range of smart television sets and can be used by broadcasters to offer interactive services. These can be offered directly on a connected TV or an STB or dongle without consumers having to buy extra equipment.

²⁰ In Thailand, DTTB Network Operators have a service availability requirement in their Network License.

Also from the ITU report “Community TV Broadcasting: Case Studies”²¹, the following was recommended (i.e. only those recommendations are selected which are relevant for content production):

- (1) Encourage multi-platform distribution;
- (2) Promote content self-regulation.

From the above listed CTV characteristics and recommendations, the following key activities and hence CTV workflow functionalities can be derived:

- (1) Community operated and local content implies that community members will cover community relevant events *on location* in their region. Hence portable recording equipment will be necessary. This may entail a smartphone or simple digital camera and lighting equipment;
- (2) In addition, this recording may be broadcasted *live* and hence a *studio contribution link* will be necessary²². This is likely to be a mobile data link, as OB vans and satellite communications equipment are very likely to outstretch available budget. The quality of the studio contribution link will have implications for ingestion, editing and transcoding (i.e. preparing the stream for broadcasting or web distribution);
- (3) CTV broadcasting is for the community and interacting with this community is key. Hence some form of *interactivity* is required. Due to budget constraints it is likely that this interactivity will not include applications such as HBBtv or second screen functionality in the MAM. Likely this will just imply a CTV webpage or Line account for CTV viewers to respond to CTV programming or to provide suggestions for new programming;
- (4) Encourage *multi-platform distribution* implies that ingested content may be distributed over different platforms and not only a broadcast platform. With an expected availability of the broadband LTE service for 50% of the population²³ and a smartphone penetration of close to 100% by 2018²⁴, mobile distribution can be a requirement, depending on the location of the CTV area. Web distribution, i.e. OTT delivery for fixed reception on smart TV sets or computers, will vary between CTV broadcasters as fixed broadband availability is limited in Thailand²⁵ and the specific CTV community members may not have access. If the scope is only limited to mobile distribution a CTV owned Facebook Live account (or similar application) may suffice for this purpose (and hence not integrated with any MAM);
- (5) Promotion of content self-regulation will require logging of broadcasted content. Especially considering the past experiences with local radio broadcasting, one of the

²¹ See ITU report “Community TV Broadcasting: Case Studies”, dated 2 November 2016, section 11.2 Recommendations.

²² For example, studio contribution feeds may be from Facebook Live or similar applications on mobile smartphones.

²³ The licensed LTE/4G operators have a network deployment obligation of providing 40% population coverage in 4 years and 50% in 8 years from the start of their license. The licenses were issued in 2015 and 2016.

²⁴ In 2014, there were close to 20 million smartphones in use, compared to 27 million feature phones. OVUM has forecasted that by 2018, almost all handsets in use in Thailand will be smartphones.

²⁵ As of Q1/2015, the NBTC reports that there are 5,860,651 fixed broadband subscribers. This is equivalent to 8.7% population penetration rate, and 29.1% household penetration rate. The number of fixed broadband connections as a percentage of fixed telephone connections is 100%. As the fixed line penetration is at best stable, no more fixed broadband growth can be expected.

principal regulatory challenges for community television is that some licence applicants may have a commercial motive. Logging of broadcasted content is then an instrument by which the Regulator can allow content self-regulation.

In addition to the above listed distinguished CTV activities, the distribution of CTV services in *all* local areas can only take place on a terrestrial platform, as fixed line and cable penetration is not available nationwide and satellite distribution is far more expensive considering the costs per community member (or pop). As analogue TV on the terrestrial platform will be switched-off (ASO), the only platform universally available for CTV will be DTTB. Moreover, one DTTB network (or layer) has been specially planned for CTV service distribution: the sixth multiplex or CTV layer. Hence a minimum requirement for a CTV broadcaster is that it purpose its content for DTTB distribution.

On the basis of the above considerations a bare minimum scope for CTV content production can be provided:

- (1) The media workflow should include:
 - (a) Ingestion for (studio) cameras and microphones/audio (i.e. cables) and audio/video files. Ingestion of live mobile phone streams (like from Facebook Live) can be implemented on a stand-alone application basis;
 - (b) Mixing facilities for video and audio, inserts of some graphics/overlays and some limited possibilities for off-line/non-linear editing;
 - (c) Storage of as-broadcasted content and logging of broadcasting events. This could be implemented on standalone PC which is manually file based fed;
 - (d) Automation play-out for 24/7 or any other schedule, playing out file based content and (live) studio recorded programs in a pre-determined schedule and/or event based;
 - (e) Transcoding the content for SDI, with audio embedded. Service Information (SI) for feeding the EPG can be done on a standalone PC and file based (see also below the metadata workflow);
- (2) The production workflow can be carried out on a standalone PC(s);
- (3) The metadata workflow can also be carried out on a standalone PC(s).

From the above described bare minimum scope for CTV content production, it can be concluded that a CTV broadcaster could in principle do without a MAM, but this will impact the functionality (e.g. for repurposing content, editing of content, transcoding the same content for different platforms, retrieval and storage management) and maintainability. Non-automated solutions will require a disciplined and trained workforce to carry out a coherent broadcast operation.

In ITU report “Practical Guidelines for Community TV Broadcasting Service Trial in Thailand” a detailed functional framework is provided for TV content production, building on the above described media, production and metadata workflows. The functionality of typical “in-a-box” TV content production solutions is mapped on this functional framework and evaluated.

4.3 Distribution network

In this Section first the DTTB network architecture and functionality is outlined. For the distribution of CTV services a local layer has been planned; the sixth multiplex (Mux 6). This CTV layer comprises 39 local or CTV areas (see Appendix 3 and 4). Currently, for this local layer a Network License still has to be assigned and hence this network still needs to be deployed. It is noted that for carrying out a CTV Trial not necessarily this local layer has to be used (as capacity is still available on the first five National multiplexes²⁶).

Secondly the deployment constraints for CTV broadcasting are described and evaluated.

4.3.1 CTV network architecture and functionality

The CTV network architecture is closely related to the network architecture for the National networks (Mux 1-5) for the simple reason that for each DTTB site (i.e. 171 sites in total for FX rooftop reception) a single transmitting antenna is planned for all 6 multiplexes. In other words, each DTTB antenna transmits six frequencies, one frequency for each multiplex.

The five National networks are deployed first and hence the deployment schedule of these five multiplexes determines when a CTV transmitter can be brought into operation²⁷. A complicating factor is that the five National networks are not deployed and operated by one single network operator. Figure 4 shows, the four licensed National network operators and which National multiplexes they deploy, as well as the National services they currently carry (as of June 2016).

²⁶ However, the use of National DTTB networks will alter the functionality and have consequences for the CTV broadcasters. Further details are provided in ITU report “Practical Guidelines for Community TV Broadcasting Service Trial in Thailand”.

²⁷ Other frequency management and operation constraints apply and are explained in Section 4.3.2.

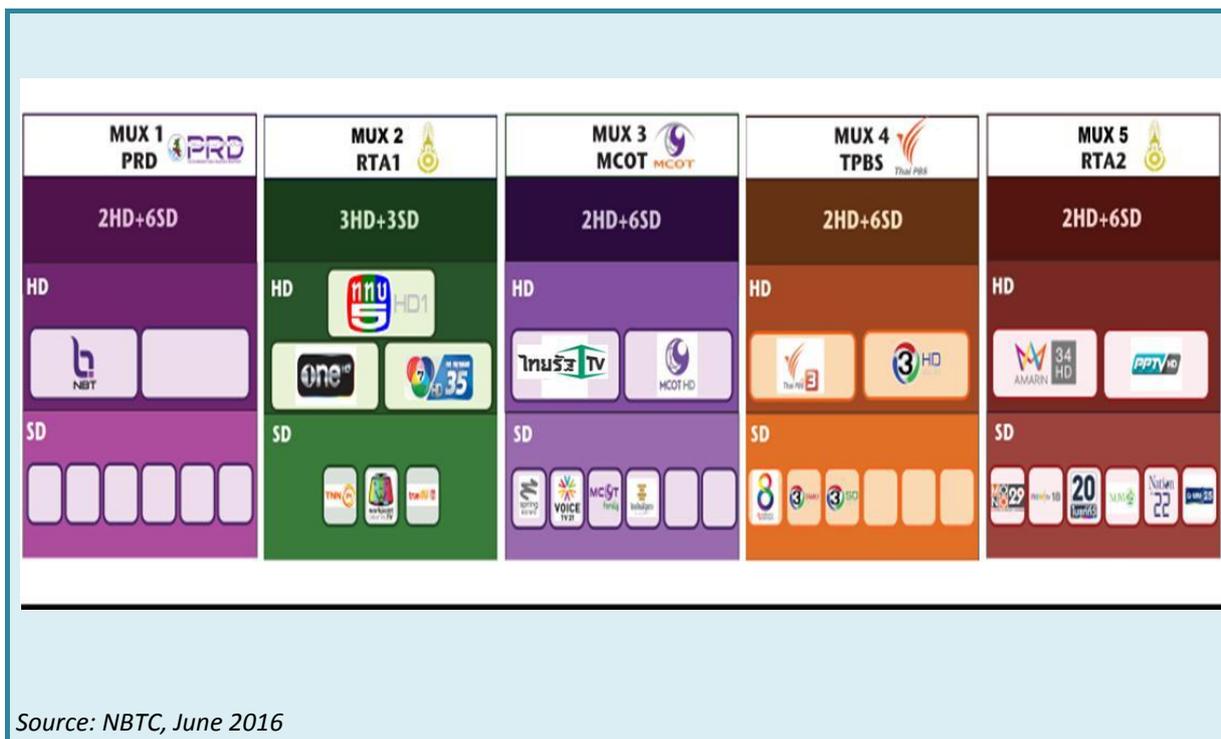


FIGURE 4: NATIONAL NETWORK OPERATORS, MULTIPLEXES AND SERVICES

From Figure 4 it can be observed that RTA deploys two multiplexes and MCOT, PRD and TPBS one multiplex each. The four network operators agreed to a common deployment schedule, so that on each DTTB site five transmitters would be taken into operations at the same time²⁸. The output of each transmitter would then be combined onto a single antenna. At the moment of writing this report, DTTB sites are taken into operation with not all five multiplexes available at each site as one network operator (PRD) is lagging behind in the deployment schedule.

For the National networks, the four multiplex centres (each network operator has one centre) are located in Bangkok and these multiplexes centres generate one National transport stream each (MCOT, PRD and TPBS) or two streams (RTA), carrying the encoded and multiplexed services. These National transport streams are then delivered by a satellite distribution network to all DTTB sites.

As each of the 39 CTV areas will have a different bouquet of CTV services, each CTV area will need a local multiplex centre (also referred to as local insertion). CTV broadcasters will deliver their studio feed²⁹ to this local multiplex centre. This local multiplex centre will encode and multiplex all CTV services in that area and generate a transport stream. This regional transport stream is then delivered to all CTV sites in the area (see Appendix 3)³⁰.

²⁸ The impact of the deployment status and the possibilities for starting CTV services on the sixth multiplex are described in more detail in Section 4.3.2. Possibilities for starting Trial CTV services are covered in ITU report “Practical Guidelines for Community TV Broadcasting Service Trial in Thailand”.

²⁹ See Section 4.2.1.

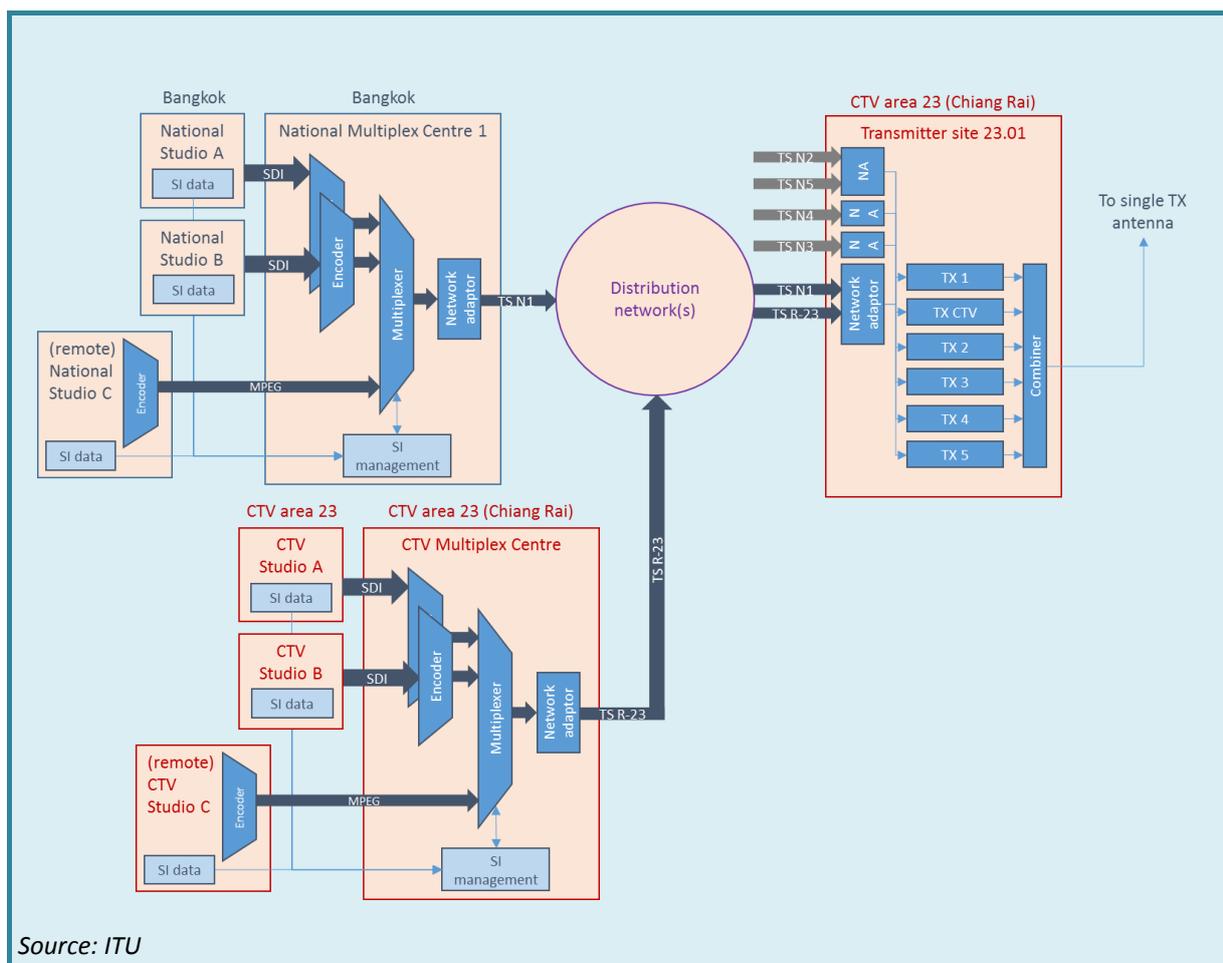
³⁰ The distribution medium for delivering the local transport stream at the DTTB sites, has not been determined yet, but could be satellite, like for the National transport streams.

It assumed that by the time the sixth multiplex will be deployed (which will be after the CTV Trial) all DTTB sites will be fully installed and operate five transmitters, combined onto one transmitting antenna. Also, it assumed that the Network License for operating the sixth multiplex will be assigned to one of the current National network operators³¹.

On the basis of the above described network planning principles, deployment schedule and assumptions, the network architecture can be outlined. Figure 5 shows the combined network architecture for National and CTV services. The architecture assumes that one of the licensed National network operators will deploy the CTV layer.

As an example the situation is depicted for CTV area 23 (Chiang Rai) and transmitter station 23.01 (See Appendix 3). For this CTV area in total 12 transmitter station are planned and for each transmitter station the architecture is the same. This is also true for any of the other CTV areas, as each DTTB transmitter station will have in the end situation six operational transmitters.

³¹ In this way, infrastructure of the National layers can be shared with the CTV layer, which has technical benefits and also financial benefits (see Appendix 3, the assumptions applied for estimating the CTV distribution fees).



Source: ITU

FIGURE 5: COMBINED NETWORK ARCHITECTURE FOR CTV AND NATIONAL SERVICES

From Figure 5 the following can be observed and concluded:

- (5) In each CTV area a regional multiplex centre is needed;
- (6) Remote TV studios (i.e. remote from the multiplex centre) need to carry out encoding (as SDI links cannot be too long³²). Hence the location of the multiplex centre is critical. For determining the location of the CTV multiplex centre, the location of the CTV studios (i.e. the demand for distribution of CTV services) needs to be investigated;
- (7) In principle all transmitter sites in a CTV area are fed with all services in the regional transport stream (in Figure 5 “TS R-23”). However, not all services in the transport stream have to be ‘unloaded’ at each CTV transmitter station in the area. This may be of interest for CTV broadcasters not interested in broadcasting their service in the whole CTV region. It is important to realise that sites where the CTV service is not unloaded, the service slot will remain empty. All CTV services have to be multiplexed in the regional multiplex centre and, in the case of a fully loaded multiplex (12 studio feeds), all encoder/multiplex interfaces are occupied. Hence in such a situation the CTV service slot will remain empty at a transmitter site. Also, not transmitting at all CTV sites will have a significant impact on the distribution fees to be paid as the CTV

³² SDI coax cables have a maximum length below 1,000 m. Above 1,000m fibre will be needed (= expensive).

network will not be fully utilized and hence the *average* fees will increase (as compared to the fees calculated in Appendix 3, see assumption 2);

- (8) Each site in a CTV area transmits the National services (carried in five multiplexes and the CTV services (carried in multiplex six) for that area, meaning that in principle the national and CTV services have the same coverage so that households in the CTV area, receive the CTV services of that area and all National services³³.

4.3.2 CTV network deployment constraints

CTV network deployment constraints are a result of five factors:

- (1) Frequencies needed for the CTV layer are in use by Analogue TV (ATV), and mainly by TPBS;
- (2) Frequencies need for the CTV layer are temporarily in use in the National layers (to avoid critical interference to ATV stations);
- (3) ATV broadcasts still in operations may critically infer with frequencies planned for the CTV layer;
- (4) DTTB frequencies used in the CTV layer may critically infer with ATV broadcasts.
- (5) Deployment schedule of the National multiplexes one to five; the local layer will have to follow the deployment of these National multiplexes as it is introduced later.

The ITU, in close collaboration with the NBTC and licensed network operators, has drafted a comprehensive report on the deployment schedule for the CTV layer and the technical constraints³⁴. This report was drafted on information available at that time (July 2015) with three critical components:

- (1) The DTTB Frequency Plan (i.e. FP 3.3)³⁵;
- (2) The agreed DTTB deployment schedule for multiplex one to five, and;
- (3) The ASO plans of the ATV broadcasters at that time.

To date the FP has not changed, however as the DTTB sites are currently deployed and implementation changes occur, the actual deployment schedule can deviate from the agreed DTTB deployment schedule. Also the ASO plans are still under negotiations and change over time. At the moment of writing this report, several ATV sites have already been switched-off (and these ASO dates may also deviate from the ASO plans as known last year).

Hence it will be necessary to recheck the proposed CTV introduction dates in this July 2015 report. This recheck should be carried out at the moment the decision has been taken to deploy the CTV layer and a target implementation date is known. At that time the DTTB

³³ Due to the application of different frequencies, powers and Single Frequency Networks (SFNs) in the National layers, small coverage difference may occur between layers and hence not all National services maybe received or reversely CTV service may not be available when National services are. However, this is only at the fringes of the coverage area and only for very small percentage of households. Also, CTV areas overlap so that households may receive CTV services from two CTV areas.

³⁴ See ITU report "Options for the Multiplex 6 deployment schedule", dated 21 July 2015.

³⁵ See footnote 10.

networks deployed and the ASO of ATV sites has progressed further. It is assumed that this decision is dependent on the results of the CTV Trial and hence the date of this decision is still pending and unknown.

However, for the purpose of illustrating the recheck a outline is provided in ITU report “Practical Guidelines for Community TV Broadcasting Service Trial in Thailand”, in appendix 3. In this appendix the currently available DTTB sites for Mux-6 based CTV services is presented. As mentioned before, the use of Mux 6 for the CTV Trial is an option, but not necessarily the best option.

It is important to note that in the ITU report on the multiplex six deployment two deployment variants were presented:

- (1) **Variant 1:** The Mux 6 transmitter at a site is brought into operation as soon as possible after:
 - (a) The date all frequency planning restrictions are lifted for that site, and;
 - (b) Taking into account an implementation interval, after the five National transmitters have been installed;
- (2) **Variant 2:** All Mux 6 transmitters in a community TV area are brought into operation at the same time, as soon as possible after:
 - (a) The date all frequency planning restrictions are lifted for all sites in the CTV area, and;
 - (b) Taking into account the implementation interval for all sites in the CTV area.

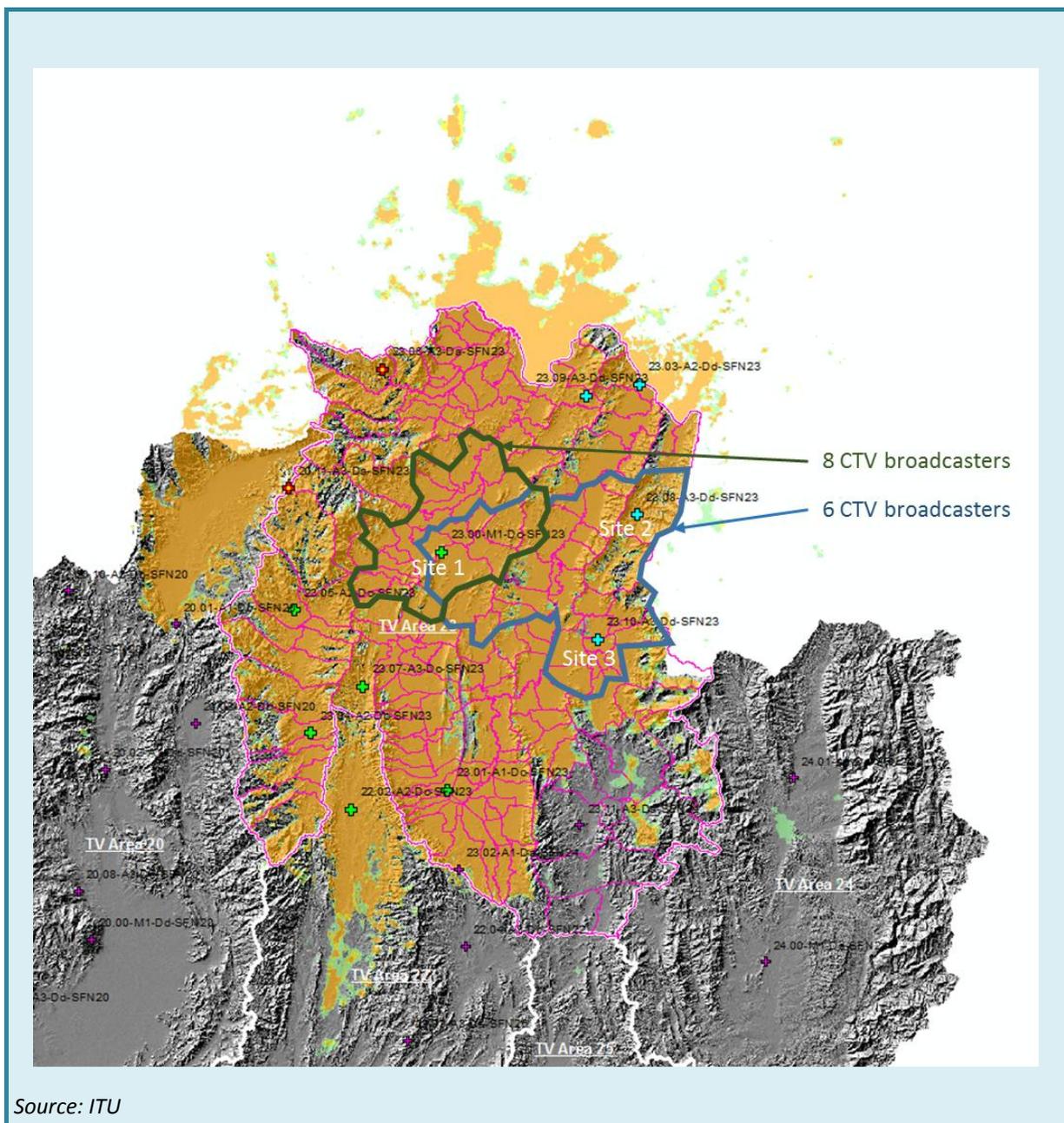
Whether variant 1 or 2 should be adopted, depends on:

- (1) The identified financially viable demand for CTV services; i.e. how many aspirant CTV broadcasters have a financed and a NBTC (pre)approved business plan/application in a CTV area;
- (2) The location of that demand; i.e. the locations of the studios of the CTV broadcasters in that CTV area, and;
- (3) The coverage requirements of each aspirant CTV broadcaster in the CTV area; i.e. which tambons should be covered;
- (4) The program schedule of each aspirant CTV broadcaster. It is likely that not all CTV broadcasters will be able to produce enough (qualifying) TV content for 24/7 or even 12/7. Hence time sharing or joined program scheduling could be applied.

To illustrate the above described factors, two different demand situations are presented resulting in two different outcomes; variant 1 and 2 respectively. CTV area 23 (Chiang Rai) and CTV area 29 (Nakhon Sawan) are used as illustration.

Demand situation 1

Figure 6 presents an imaginary situation of fragmented demand in CTV area 23 (Chiang Rai).



Source: ITU

FIGURE 6: FRAGMENTED CTV DISTRIBUTION DEMAND (CTV AREA 23)

In Figure 6 demand is fragmented in the sense that CTV broadcasters are only interested in coverage of (different) parts of the CTV area. In the overlapping area (green and blue) there is even too much demand as there is demand for 14 services in those tambons. Four CTV broadcasters (i.e. two ‘green’ and two ‘blue’ CTV broadcasters) of the 14 broadcasters should agree a shared program schedule. In such a demand situation, deployment variant 2 (wait till all 12 sites are available), should not be followed.

The CTV network needed for this demand can be limited to three sites (with one multiplex centre located for example next to site 1)³⁶, providing coverage in tambons as enclosed by the green and blue lines. In these CTV covered tambons, 12 services can be received (of

³⁶ Locating the multiplex centre next to one of the transmitters sites will save distribution costs.

which two services have content from four CTV broadcasters). Following deployment variant 1 (take each site on air as soon as possible) and assuming that site 1 (see Figure 6) is available first, that site would broadcast 12 CTV services in the tambons enclosed by the green line³⁷. Subsequently, site 2 and 3 are assumed to become available together, after site 1. These sites would also broadcast the same 12 CTV services, if all CTV services would be ‘unloaded’ at each of the three sites (although eight ‘green’ CTV broadcasters are not interested in these tambons, served by site 2 and 3).

Alternatively, the services of the eight ‘green’ CTV broadcasters are not unloaded at site 2 and 3. As two ‘green’ and two ‘blue’ CTV broadcasters share two services, only six ‘green’ services can pass site 2 and 3 (without unloading). The same does not apply for the six ‘blue’ CTV broadcasters, not willing to unload at site 1, as they will need site 1 for coverage of the tambons located near site 1.

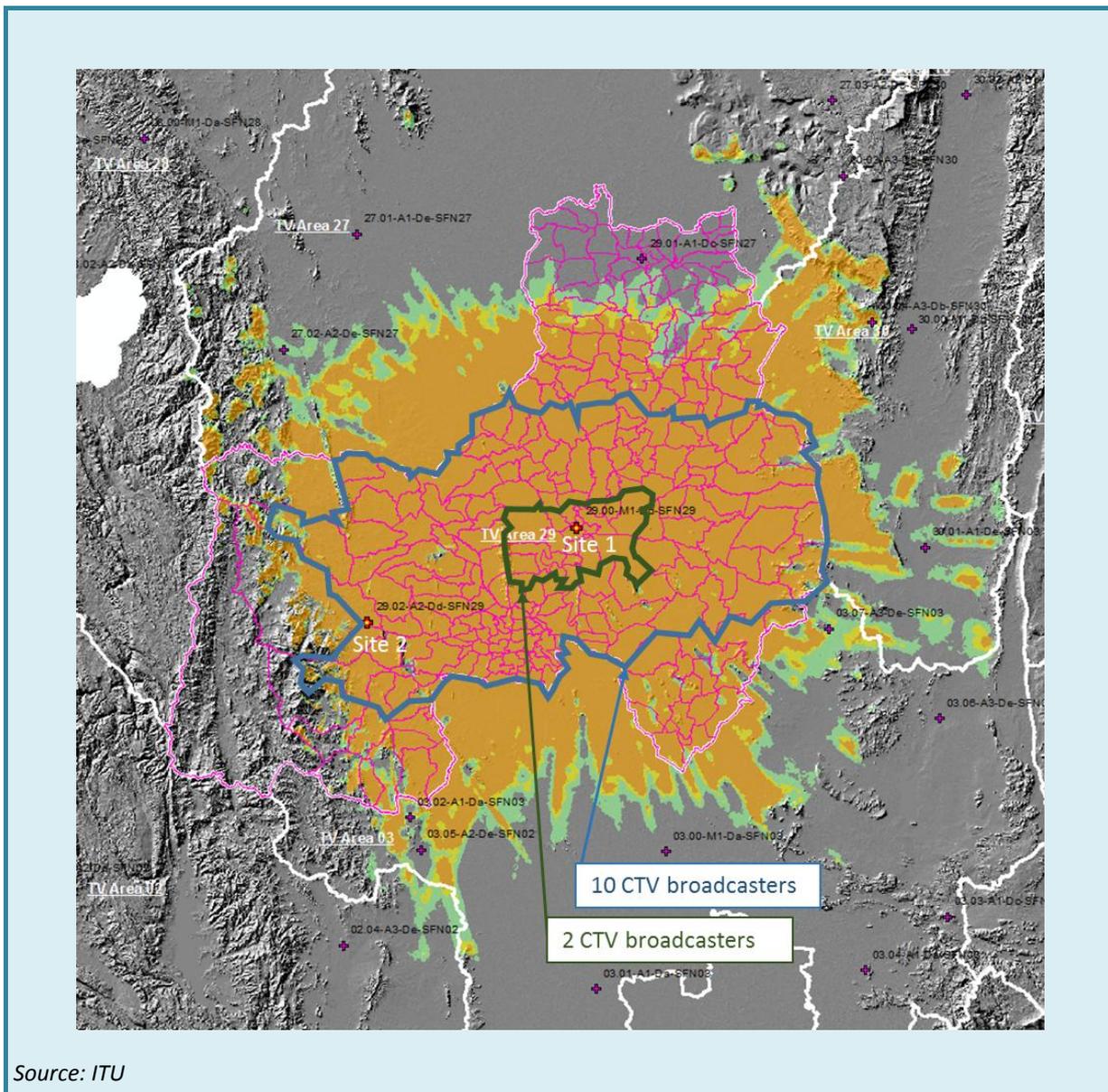
For the distribution fees to be paid, it is important to note the following:

- (1) The CTV network will contain three transmitter sites (and not the 12 planned sites) and hence the distribution fee per SD CTV service will be lower (and comparable to the fee to be paid, for example, for CTV area 5 which has 3 planned sites, see Appendix 3);
- (2) Allowing CTV broadcasters not to unload their service on certain sites (in this example site 2 and 3) and hence claiming a lower distribution fee, will result in *passing-off* costs to the other CTV broadcasters, paying for all transmitters (including site 1). This is explained by the fact that the network costs don’t change by unloading at sites or not. Hence the costs of site 1 will go-up and CTV broadcasters not unloading at site 2 and 3 pass-off costs to those CTV broadcasters paying for site 1;
- (3) Hence it is recommended not to allow CTV broadcasters to pass sites and not pay for these passed sites in the CTV network. Too large differences in the requested coverage areas between CTV broadcasters, can however result in cost disputes. So either:
 - (a) CTV broadcasters are selected for having similar coverage areas, or;
 - (b) A ‘best average’ coverage area is agreed, covering most of the requested coverage areas and accepting that certain tambons are not covered;
 - (c) A combination of the two.

Demand situation 2

Figure 7 shows an exemplary situation of uniform, area-wide demand in CTV area 29 (Nakhon Sawan).

³⁷ Is noted that exact coverage of that single site (site 1) should be calculated again, as the coverage in Figure 6 is the composed coverage of all 12 CTV sites combined.



Source: ITU

FIGURE 7: UNIFORM, AREA-WIDE DEMAND (CTV AREA 29)

In Figure 7 demand is uniform and area-wide as the majority of CTV broadcasters are interested in covering tambons with the projected coverage and needing all planned (2) transmitter sites. Only two (‘green’) broadcasters are interested in a much smaller group of tambons, around transmitter site 1. This demand situation is much easier to satisfy in terms of needed network architecture; on two sites a Mux 6 transmitter will have to be deployed for a group of 12 CTV broadcasters.

In situation that demand would outstretch available capacity, let say there are 15 qualified ‘blue’ CTV broadcasters, the Regulator either:

- (1) Needs to select the best of the 15 ‘blue’ and 2 ‘green’ CTV broadcasters. This implies organizing a public tender. In this public tender, one of the selection criteria may be the financial contribution the CTV is able to generate towards any Government funding (see also Chapter 6). For this purpose, the Regulator will need:

- (a) A detailed business plan, showing the various source of income and their sustainability, and how these sources match the costs (OPEX and CAPEX);
 - (b) Upfront (before the public tender) published and approved distribution fees. For this the Regulator needs to decide on the aspect of ‘not unloading’ and not paying for all sites. Following the recommendation not to allow this, this would have an impact on the evaluation of the two ‘green’ CTV broadcasters as they will have to pay for two sites and will for example only generate donations from the tambons enclosed by the green line. As a result, the two ‘green’ CTV broadcasters, knowing the published distribution fees, may decide to increase their activities to cover all tambons (enclosed by the blue line). In other words, upfront clarity about the distribution fees will make demand more uniform;
- (2) Needs to encourage CTV broadcasters to collaborate first (before any public tender). For example, the Regulator could encourage CTV broadcasters to compile shared programming schedules (before applying). In this way also the TV content production costs can be shared between different communities.

In this demand situation, deployment variant 2 (wait till all 2 sites are available) may be a better option as the communication to the communities is simpler; one simple message explaining where, what and when CTV services can be received (without explaining network deployment schedules).

Focus Group meeting: *Participants prefer to start broadcasting their services in the empty slots of the five National DTTB multiplexes. This would then take place under a Trial licensing scheme and set-up. For the longer term and after the Trial they would then migrate their services to the dedicated sixth multiplex or Local network layer.*

Note: The possibility to start broadcasting CTV services in the empty slots of the five National DTTB multiplexes is described in detail in the Trial report.

5 Content

Legislation and Notifications provide content requirements for a community television station. A schedule must contain not less than 70% of news and documentary programs useful to the public in the targeted community (Annex B s 2.1). An explanation of what is news and documentary content is outlined in section 2.3. Further, not less than 50% of the content of a community television station must be produced by people living in the target community (s 2.1).

A community television station may not broadcast advertisements (BBA s 21). Advertisements are understood to be ‘any act which, by whatever means, causes the properties, advantages or qualities of products to be seen or known by general people for the benefit of profit taking business’ (s 4 Notification of NBTC on Licensing Criteria and Procedures for Radio and Television Services BE 2555 (2012)). However, a community television station can announce supporters and donors but this announcement must be

separated from any particular content and cannot be any commercial inducement or promotion (Annex B, s 3.1 and s 3.2).

A broadcast licensee shall have the duty to examine, correct, improve or suspend the broadcast of programs containing issues that may encourage the overthrow the democratic regime of government with the King as Head of State or having effects on the national security, peace and order or morals (Notification BE 2555 (2012) s14 (11)).

A licensee is also required to provide a program schedule including the title of a program, its length, time of broadcast, origin of the content (Notification BE 2555 (2010) s 7.2) and may not vary the schedule without a seven-day notice period to the NBTC (s 8).

The community television sector is required to develop an instrument of self-regulation, which is to be overseen by an Ethical Control Committee (BBA s 39).

In technical terms, the above described obligation to provide a program schedule and develop an instrument of self-regulation, would imply:

- (1) The generation of Service Information (SI), which can be used to compile the Electronic Program Guide (EPG). As can explained in Section 4, this information can be generated manually (on a standalone PC) and be file-based fed into the multiplex centre (see also Figure 5);
- (2) Logging of content 'as-broadcasted'. As explained in Section 4, it was recommended to also log broadcast events (for the purpose of checking service availability).

As one of the defining characteristics of CTV is that it is community owned, controlled and operated, it is key that the station is open to community members for determining the broadcast content (i.e. programs and schedule). The Code of Practice should describe how the station is organising community members' participation in the determining the programs and the scheduling of these programs. In the Trial report, in section 3.4 (Community Interaction) an example is provided on how interaction between the station and its community members can be arranged.

A draft Code is proposed in Appendix 5.

6 Finance Models and Governance Models

This Section addressed what avenues CTV broadcasters have to generate income (Finance Models) and in what way they should organise oversight and management (Governance Models).

6.1 Finance models

The Notification on Community Broadcasting (Annex B) indicates that a community television and community radio station may derive revenue from:

- (a) Donations;
- (b) Subsidies that are not advertisements;

- (c) Subsidies from the NBTC Research and Development Fund.

Donations may be acknowledged on air provided the acknowledgement does not take the form of an advertisement.

By way of commentary, this limited range of revenue sources may challenge the viability of the community television sector. Hence it is important to keep to cost structure of CTV stations low. Infrastructure sharing should be promoted. Infrastructure sharing is possible in both the content production and distribution.

The necessary production facilities, as described in Section 4.2, can be shared between CTV broadcasters, if they agree to share a common program schedule. As outlined in Section 4.3, this will also imply that they agree on the communities (or tambons) served. This agreement is necessary as the shared CTV service is broadcasted, in principle, to all sites that will be deployed in a CTV area. In addition, it is recommended to investigate the possibilities of sharing studio facilities (such as housing) with community radio broadcasters in the CTV area.

Distribution infrastructure can also be shared, as explained in Section 4.3 and illustrated in Figure 5. This sharing is between Network Operators and not between CTV broadcasters as such. This sharing is an explicit task for the NBTC to arrange for, by assigning the Network License to a Network Operator that can and is willing to use other Network Operator's infrastructure³⁸. Infrastructure sharing includes, sharing of sites (including housing, power and cooling), redundant or back-up transmitters, antennas and distribution networks.

As described in Section 4.3, it may be necessary that the encoding is carried out at the CTV broadcaster's premises. This does not automatically imply that the investments in the encoder are for the account of the CTV broadcaster. Encoding can be distributed (as opposed to all encoders located in the Network Operator's multiplex centre) and included in the scope of the Network Operator's obligations. The Regulator should provide clarity in this aspect before assigning the CTV Network License, as well as the CTV Service License.

In the Trial report more practical guidance is provided on the financing of CTV operations, see chapter 5 in this report.

Focus Group meeting: *Participants noted that sponsoring and the associated sponsor announcements should not be program specific. Sponsoring and its announcements should address the whole station. It was also suggested that sponsorship announcement can be grouped together in specific time blocks within the broadcast schedule. In this way, the distinction between sponsoring and advertising can be better made.*

6.2 Governance models

Organisational governance is a broad concept and cannot unambiguously defined. Here in this report it is defined as the relationship between the organisation's management (i.e. the station coordinator or director) and the Board (or supervisory body), with the objective to

³⁸ It is noted that this third party Network Operator will have to have a Facility License.

promote transparent reporting on the organisation's performance to its stakeholders (including the community members and the NBTC), as well as to exercise oversight and steer the organisation's strategic direction.

In such a relationship the organisation's management (i.e. the station manager or director) is responsible for the day-to-day operations and management. For a CTV broadcaster this would include specifically editorial responsibility, the scheduling of programs and determining the weekly/monthly broadcast schedules. Which for CTV broadcasting, would have to be in close collaboration with the community members and in accordance with the station's Code of Practice (which should include the community members' participation).

In this relationship, the Board acts as a supervisory body and should be reported to and consulted on strategic and major financial matters. For a CTV broadcaster these matters could include:

- (1) Approval of the annual financial report;
- (2) Approval of NBTC reporting;
- (3) Changes or deviations from the Code of Practice;
- (4) Hiring and releasing of key personnel (including the station coordinator or director);
- (5) Major investments (which are relative to the CTV broadcaster's income and the station coordinator's financial mandate);
- (6) Changes in the statutory mission of the organization;
- (7) Changes in editorial policies.

With having such a governance relationship between the management and the Board of the CTV broadcaster, the participation of community members is arranged for at the level of the station's daily management and operations, as well as its Code of Practice. In this light, the number of Board members can be limited.

Apart from having a station coordinator or director, other key management roles and reporting lines within the CTV station should be defined. Having different roles doesn't necessary mean different people as some roles can be combined into a single person or volunteer (with the exception of book keeping roles). As a full scope example, the management roles of a CTV station in the United States can listed, Montgomery Community Media (which is a station with a wide scope of activities, including media training activities)³⁹:

- (1) Station director or Chief Executive Officer;
- (2) Director of Administration and Human Resources;
- (3) Director of Content and Operations;
- (4) Director of Development and Communications;
- (5) Multimedia Manager/Producer;
- (6) Executive Producer;
- (7) Philanthropy Manager and Grants Writer;
- (8) Programming Manager;
- (9) Accounting Manager;
- (10) Training and Volunteer Services Manager;
- (11) Production Manager;
- (12) Network and Technical Manager.

³⁹ See <http://www.mymcmedia.org/>

In the governance of a community television station it is recommended that the station use the form of an association as its legal entity. Membership fees of the association will then contribute to a station's revenue.

Appendix 2 outlines what the governance structure of a community television station might look like.

7 Measures for Promoting the Service

A challenge in promoting community television in Thailand is that the experience of community radio may influence what is understood by community television.

It is recommended that the NBTC engage in a public information strategy to explain community television before the call for licence applications. NBT and Thai PBS may assist with this on air and such a strategy could be supported by the NBTC Research and Development Fund.

A further promotional opportunity is when the first community television licensees go to air.

In addition to the broad based public information strategy, it is recommended that the NBTC host information seminars in various regions of Thailand. In the first instance, these seminars could be held in areas where there is demonstrated interest in obtaining a community television license.

The central messaging of such campaigns and information seminars is that community television is different from public service, state and commercial broadcasting. The opportunity for community engagement with the content and operations of community television is a central element of this advocacy.

It is important to emphasise here that CTV is different from community radio broadcasting. Community radio broadcasting is FM based and analogue (broadcast) technology is applied. CTV, as covered in this report, is based on digital production and broadcast technology. Also the operational setting is different. A community radio broadcaster is carrying out both service provisioning (i.e. producing content) and network operations (i.e. distributing the content over their own controlled and operated FM infrastructure). For CTV broadcasting over a DTTB platform, there is an operational and technical interface between content production on distribution.

A fundamental different skill set is needed. As explained in Section 4.2 and 4.3, the involved technology is ICT based and the management of digital assets is the core. Also working together with a third party network operator requires different operational, managerial and technical expertise. Hence it is recommended to provide licensed CTV broadcasters comprehensive training in digital content production and distribution.

In the Trial report more practical guidance is provided on promotional measures, see sections 4.2 and 6.1 in this report.

Focus Group meeting: *Participants noted that it is important that also community members are educated in what Community TV broadcasting entails and how they can participate in the operations of the station, how it is different from local commercial broadcasting, and what they can expect from Community television stations.*

8 Regulatory Impact

Earlier in this report the various regulatory tools available in regulating the media were identified (see Section 3.1). The contrast is statutory intervention at one end and self-regulation at the other. For Thailand, the challenge will be to find the balance between intervention by the NBTC and self-regulation by the community television broadcasters. This balance may adjust as the community television sector is established and matures.

It is recommended that the NBTC develop staff who specialise in community television licensing and operations.

It is further recommended that early regulatory focus be on ensuring licensee compliance with the community controlled, not for profit character of community television.

There also is a relationship between regulatory intervention and the viability of the community television sector. There will be different models for running a community television station and the NBTC should support this operational diversity of the sector. The range of funding sources are very limited and it may be that a regulatory initiative of the NBTC would be to establish an ongoing support fund for the sector.

Providing community television maintains the integrity of its purpose, there should be limited impact on commercial, state or public service television licensees. As community television is local television, it is different in character and purpose from the national perspective of the other television sectors. As community television does not carry advertising, it is unlikely to impact on the viability of commercial television.

The impact of having CTV services in the DTTB service bouquet may even be positive. As CTV services will not be available on the satellite platform. Hence the DTTB platform may be provided a competitive advantage over satellite distribution. In this light, the NBTC is recommended to promote collaboration between the National DTTB service providers and the CTV broadcasters. This may be in the area of joined promotion of the DTTB services (in the CTV area). Also interrelated programming may be possible. For example, the national news (as provided by the National service provider) may be completed with news from the CTV broadcaster.

Finally, it should be realised that allocating the full spectrum for CTV services (i.e. allocating spectrum for deploying the sixth multiplex or layer, covering 95% of the population) will imply that no spectrum will be available for the current DTTB broadcasters (i.e. those broadcasters operating SD and HD services on Mux 1 to 5) to extend their services in the long term (i.e. more SD or HD services).

With the empty slots currently available on the first five multiplexes, capacity extension may not be eminent. However, in the longer term this may prove to be an urgent spectrum

allocation decision to be taken. For example, under a future scenario where DTTB services can't compete with higher picture quality delivered on other distribution platform and the CTV layer not fully utilized (either in terms of number of transmitter stations and services). This may constitute a situation of managing the spectrum inefficiently.

8.1 Regulatory Impact Assessment

1. Community television is a niche broadcasting service engaging local and regional audiences. In audience on the free to air spectrum, it typically has the smallest share and reach of all television services and is at the opposite end of mass-market services such as commercial television. In operating costs, it tends to be the lowest cost service in content making but is comparable to other services in distribution costs.
2. The regulatory setting for community television is alongside commercial, public service, and state services. Provided the integrity of purpose of community television is explicit in legislative provision and in practice, its impact on other television services appears, at best, marginal.
3. In establishing and enabling community television, significant regulatory expertise and effort has to be developed and maintained. A distinguishing attribute of community television is that it is community owned, controlled and operated. This means that much of its governance and operations is undertaken by community volunteers. Regulatory expertise needs to be developed for effective work with broadcasters who are not professionally trained or engaged.
4. Each of these elements of regulatory impact will now be assessed in more particular terms. As these case studies have demonstrated, community television, as a platform, is not monolithic across various jurisdictions. For example in revenue, some countries allow limited advertising on community television whereas some other nations do not.
 - (a) *Audiences and community television*
 - (i) Audience share (how many watch at a particular time) and audience reach (how may watch over a period of time) is typically significantly lower than for commercial or public service broadcasters
 - (ii) For example, the Australian community television channel in Melbourne (a city of 4 million) claims to have a reach of 500,000 viewers over a month. A former Australian Minister for Communications claimed that community television station across 5 major cities had a share of 6000 viewers at a peak evening viewing time. The Australian Community Television Alliance disputes the former Minister's figures
 - (iii) Audiences for community television content tend to be niche in the sense of being hyper-local or focused on particular interests, including local or regional dialects and customs
 - (iv) The appears no evidence that the existence of a community television service affects the viability of a commercial or public service television broadcaster in terms of audience allegiance

- (b) *Revenue and community television*
 - (i) Many community television regulations allow for limited advertising or sponsorship as a means of revenue raising
 - (ii) Typically these advertisers tend to be small businesses who may not advertise on commercial television
 - (iii) The advertising and sponsorship rates on community television tend to be significantly lower than advertising rates on commercial television
 - (iv) While some advertisers may choose to split their spend between commercial and community television, more typically community television tends to attract commercial supporters who have some form of local presence
 - (c) *Regulatory capacity and community television*
 - (i) Some regulators have developed specialist capacity to engage with community volunteers who have a community licence
 - (ii) Community television tends to thrive where there is a strong regulatory culture of self-regulation
 - (iii) This self-regulation is often fostered by a Community Television Code of Practice and an effective Community Television industry association
 - (iv) Significant compliance effort will be required if there are not clear rules and understanding about advertising and sponsorship on community television
 - (v) The regulator may be tasked with identifying funds for establishing community television and providing a framework for its viability
 - (vi) Regulatory processes should be minimalist, accessible and transparent as possible
 - (vii) Community television tends to be a crucible for innovation and the nurture of new talent. New formats are tried and in some cases migrate to commercial and public service television
5. The regulatory impact of the introduction of community television tends then to add to the diversity of the broadcasting sector, does not negatively impact on existing services, provides coverage for underserved audiences, is a vehicle for social cohesion through local services and encouraging volunteering, and often is a centre of innovation.

9 Conclusions and Recommendations

The introduction of community television in Thailand will add much to the diversity of the media sector. Local voices and faces on community television have the potential to enrich community information, appreciation, cohesion and values in the localities that are served.

The success of community television in Thailand will depend, through regulatory tools, on maintaining the integrity of the sector and its reason for being. Community television is community owned, controlled and operated. It is essentially not for profit and serves a local or regional area.

The core of the regulatory environment for community television has been outlined in Appendixes 1, 2 and 5. Appendix 1 is an outline of current legislation and regulations. Appendix 2 is a proposed structure for further regulation and Appendix 5 is a proposed Code of Practice recognising that community television in the first instance is best self-regulated.

In addition, the success of community television in Thailand, is also dependent on having the investments in production facilities defined and financed, as well as the operational expenditure for distribution covered. As described in this report, this will require scoping the broadcasting activities to a minimum which is still compliant with the unique characteristics of community television broadcasting.

Also the design and architecture of the distribution networks for community television should be demand driven and the infrastructure should match this demand. The demand for community television broadcasting should therefore thoroughly investigated and defined. A community television Trial can help in providing these demand insights.

Glossary of Abbreviations

A/V	Audio/Video
ACMA	Australian Communications and Media Authority
ASO	Analogue Switch Off
ATV	Analogue Television
BBA	The Broadcasting Business Act (2008)
BMP	Broadcasting Master Plan
CAPEX	Capital Expenditure
CBAA	Community Broadcasting Association of Australia
CS	Community Service
CTV	Community Television
DTTB	Digital Terrestrial Television Broadcasting
EPG	Electronic Program (or Programming) Guide
ERP	Effective Radiated Power
FP	Frequency Plan
FX	Fixed (or rooftop reception)
HBBtv	Hybrid Broadcast Broadband TV
HD	High Definition
LA	Local Area
LRIC	Long Run Incremental Cost
LTE	Long Term Evolution
MAM	Media Asset Management
MDA	(Singapore's) Media Development Authority
MFN	Multi Frequency Network
MUX	Multiplex
NBTC	National Broadcasting and Telecommunications Commission (of Thailand)
NLE	Non-Linear Editing
NO	Network Operations
NPV	Net Present Value
OB	Outside Broadcasting
ONBTC	Office of the NBTC
OPEX	Operating Expenditure
OTT	Over-The-Top
PBS	Public Broadcasting Service
PI	Portable Indoor (reception)
PSB	Public Service Broadcasting
RX	Receiver

SA	Service Availability
SD	Standard Definition
SDI	Serial Digital Interface
SFN	Single Frequency Network
SL	Service license or Licensee
SP	Service Provisioning
THB	Thai Bath
TS	Transport Stream
TX	Transmitter
VOD	Video On Demand

Appendix 1: Review of current Thai law and regulations on CTV

The principal relevant legislative and regulatory instruments include:

Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B. E. 2553 (2010) [‘Organization Act’]

Broadcasting Business Act B. E. 2551 (2008) [‘Business Act’]

Notification of the National Broadcasting and Telecommunications Commission on Licensing Criteria and Procedures for Radio or Television Broadcasting Services B. E. 2555 (2012)

Annex B Qualifications, Characteristics of the Schedule, Program Proportion and Revenue Generation Radio or Television Services: Community Broadcasting Service

[‘Annex B’]

The principal regulatory issues to be addressed include:

- (1) Licensing of Community Television;
- (2) Governance of a Community Television Station;
- (3) Sustainability of the Community Television sector;
- (4) Content Regulation;
- (5) Managing Station Disputes and Audience Complaints.

Each of these issues will be examined, first, by specifying current legislation and regulation. Second, identifying areas where regulation needs to be developed and third, suggesting the form that such regulation might take.

This paper follows discussion and comment from Licensing and Legal, Consumer Protection, and Self-Regulation staff of the National Broadcasting and Telecommunications Commission (NBTC) in Bangkok and consultation with Dr Phattar Burarak, Associate Professor of Communications, Phayao University and Somchai Suwanban, South East Asia Representative of Beyond Broadcasting.

(1) Licensing of Community Television

(a) *Existing Legislation and Regulation*

- (i) **Form of entity** of an applicant: *either* an association *or* a foundation *or* any other juristic person set up under Thai law that is non-governmental and not for profit *or* a

group of local residents that is a non-juristic person (Business Act B E 2551 (2008), s 12). An applicant must not be a group of less than five local persons (Annex B, Clause 1.1)

- (ii) **Due regard of NBTC:** the Commission shall have due regard of promoting an efficient television business which should be responsive to the diverse needs of the people in a community or locality including the prevention of a business takeover (Business Act BE 2551 (2008), s 12)
- (iii) **Applicant evidence of community strengthening activity:** for not less than two years in any of 13 specified areas (Annex B Clause 1.1.1 (1)-(13))
- (iv) **Evidence of practice of establishing a station:** including formulating policy and objectives or financial support or station operations, or contributing to station content, or to community forums about the direction of the station (Annex B Clause 1.1.2 (1)-(4))
- (v) **Board Directors' Limitations:** to be Thai citizens and no involvement in any other community broadcaster who has had their license revoked or not be a member of Parliament, local council, local administrator or politician or a state official (Annex B Clause 1.2-1.4)
- (vi) **Applicant's Limitation:** Not to be affected by bankruptcy or adverse findings by the Securities Exchange of Thailand or criminal conviction (Notification on License Criteria and Procedures B E 2555 (2012), Clause 7)
- (vii) **Application and Credentials:** As laid out in Notification, Clauses 8 and 9
- (viii) **Information on Television Broadcasting Plan:** Completion of form in Annex E
- (ix) **Information on Operational Plan and Development Plan:** Completion of form in Annex F
- (x) **Facilities Information:** Completion of form in Annex I
- (xi) **Payment of Licensing Application Fee:** Annex J
- (xii) **Minimum Factors to be evaluated by NBTC:** Notification on License Criteria and Procedures (2012), Clause 11

(b) *Regulations to be Developed*

- (i) **Provision for Community Television Trial License:** suggest trial period for one year (extendable by NBTC); during this trial at the six month point the NBTC issue a notice of compliance or non-compliance. If there is a notice of compliance issued then

the applicant can apply for a long-term license that should be issued before the trial period ends, in stability to ensure continuity of service.

- (ii) **Conditions for Community Television Trial** same license requirements as in legislation and regulation for an ongoing service. A Trial License should be mandatory before any grant of a 5-year term license.

(2) Governance of Community Television Station

(a) *Existing Legislation and Regulation*

- (i) **Diversity of Community Television station represented in its Board or Management:** a license is issued for community service on the basis of the diverse needs, resources and public benefits of the community (Business Act Section 17 (2))
- (ii) The nature of the entity holding the license will influence its governing structure: an association or foundation, for example, is governed by the *Thai Civil and Commercial Code* Part II and Part III
- (iii) A community television station is required to appoint a person of Thai nationality as the director of the station whose role is to supervise and oversee the broadcasting in line with the license and be responsible for the programming in compliance with the laws and notifications prescribed by the NBTC (Business Act s 29)

(b) *Regulations to be Developed*

- (i) **Identifying sectors to be represented in the Board:** is this desirable and workable? Allow government officials who are teachers or health professionals to be elected to a board of a community television station.
- (ii) **Ensuring the community television station is accountable to its audience:** election of board and ensuring transparency of community station operations

(3) Sustainability of Community Television Sector

(a) *Existing Legislation and Regulation*

- (i) **Community services prohibited from generating revenue from advertisements** (Business Act, s 21 and Annex B, 3.1)

- (ii) **'Advertisement' defined in Notification on Licensing Criteria and Procedures (2012), Clause 4**
- (iii) **Community services may generate income from donations, subsidies from the station or other sources of revenue, other than advertisements** (Notification on Licensing Criteria and Procedures (2012), Annex B, Clause 3.1)
- (iv) **Such subsidies and donations must not influence station management, operational directions, program production and content** (Notification on Licensing Criteria and Procedures (2012), Annex B, Clause 3.1)
- (v) **In making on-air announcement of supporters or donors their names or entities name must be clearly stated and separated from content and not presented in manner of commercial inducement or promotion** (Notification on Licensing Criteria and Procedures (2012), Annex B, Clause 3.2)
- (vi) **Subsidies for community services may come from the Broadcasting and Telecommunications Research and Development Fund for Public Interests** (Notification on Licensing Criteria and Procedures (2012), Annex B, Clause 3.3)

(4) Content Regulation

(a) *Existing Legislation and Regulation*

- (i) **The community station shall have news and information programs that are useful to the recipient community or locality in a proportion of not less than 70%** (Business Act (2008) s 33(2))
- (ii) **The content of the community station must be related to the community it serves and 50% of content must be produced by people living in that community** (Notification on Licensing Criteria and Procedures, Annex B, Clause 2.1)
- (iii) **A program schedule or chart will be developed to reflect the conditions of the license and submitted to the NBTC** (Business Act (2008) s 34)
- (iv) **Particular content consideration for the protection of children, coverage of emergencies and provision for the disabled and underprivileged** (Business Act (2008) ss 34 -36)
- (v) **Prohibition of content that seeks to overthrow the democratic regime of government with the Monarchy as Head of State or having effects on national security, peace and order or morality of the public or is obscene or causes serious deterioration of the physical or mental health**

of the people (Business Act (2008) s 37)

- (vi) **Retain a copy of station output for not less than 30 days** (Notification on Licensing Criteria and Procedures, Clause 4 (12))
- (vii) **If the station broadcasts in a local dialect then each hour the station and the schedule must be identified in the official language** (Notification on Licensing Criteria and Procedures, Annex B, Clause 2.2)
- (viii) **The NBTC shall undertake to promote the formation of industry and professional associations whose duty is to set self-regulatory ethics standards for the profession and the industry that would be administered by an Ethics Control Committee** (Business Act (2008), s 39)

(b) *Regulations to be Developed*

- (i) **The development of a self-regulatory Community Television Code of Practice** (See Appendix 3)

(5) Managing Station Disputes and Audience Complaints

(a) *Existing Legislation and Regulations*

- (i) **A person damaged by content broadcast that is false information or in violation of rights, liberties, dignity, reputation, family or privacy rights of other persons may file a complaint with the NBTC** (Business Act (2008) s 40)

(b) *Regulations to be Developed*

- (i) **A community station is likely to be principally run by volunteers. A self-regulatory Code needs to be developed to deal with internal station grievances as well as audience complaints**

This analysis is an attempt to assemble a body of existing law and regulation that applies to the development of community television in Thailand, as well as to identify regulations that are yet to be developed and the principles on which they should proceed.

The Appendices that follow are a draft attempt at what a Community Television Regulation and Code of Practice might look like.

Appendix 2: Proposed CTV regulations

These regulations are to be issued by the National Broadcasting and Telecommunications Commission of Thailand (NBTC), according to the *Act on Organisation to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services BE 2553 (2010)* and the *Broadcasting Business Act BE 2551 (2008)* and Notifications of the NBTC.

1. Defining Characteristics of Community Broadcasting

- (a) The essential elements of community broadcasting are:
 - (i) A community broadcasting service is community owned, controlled and operated
 - (ii) A community broadcasting service is not-for-profit
 - (iii) A community broadcasting service is local and licensed for a locality or region
- (b) The NBTC may award broadcasting licences for community television
- (c) A community television service would be licensed to a broadcast frequency

2. Licensing of Community Broadcasting

- (a) In addition to the *Notification of NBTC on Licensing Criteria and Procedures for Radio and Television Broadcasting Services BE 2555 (2012)*, including Annex B, a community broadcasting licence applicant would need to satisfy the NBTC about its capacity, support and purpose, including each of the following areas:
 - (i) Extent of community support
 - (ii) Demonstration and indication of ongoing commitment
 - (iii) Community diversity represented by the applicant
 - (iv) Capacity to raise adequate funds both to start the community station and to keep it going (provide a first year and second year budget)
 - (v) Ability to manage a community station, including programme and technical operations

- (vi) A proposed initial programme schedule and the capacity to develop this further
 - (vii) How this proposed community station is distinct from existing media services in the proposed local service area
 - (viii) Demonstrated community value of the station
- (b) A community broadcasting licence may be awarded to an association or foundation created and properly constituted for the purpose of community broadcasting in a particular local service area, or a juristic person that is not for profit and is non-governmental or non-juristic persons of a least five in number.
- (c) A critical consideration in the award of a licence is the extent to which the applicant is accountable to the community it serves and is representative of the diversity in that community. An applicant, in preparing an application, may wish to consider the legal entity that best meets this consideration.
- (d) A community broadcasting licensee can only hold one community broadcasting licence in one local service area, except that a community radio licensee may apply to add a community television licence to the same service area or a community television licensee may apply to add a community radio licence to the same service area.
- (e) The NBTC may seek further information and undertakings from an applicant before awarding a community broadcasting licence.
- (f) The term of a community broadcasting licence is for five years and is renewable except that the NBTC will issue a Trial Licence before granting a five-year license in the first instance.
- (g) A Trial Licence for community television may be issued for a period of one year and is renewable.
 - (i) The application requirements for a Trial License is the same for a five-year license.
 - (ii) A Trial Licensee will normally broadcast through a digital multiplex.
 - (iii) The NBTC will assess the Trial Licensee for compliance with license conditions after six months. If the Trial Licensee is

found to be compliant they may then proceed to apply for a five-year licence. If the Trial Licensee is found not to be compliant they may apply for an extension of their Trial License in order to become compliant

- (h) The NBTC shall develop a Roll-Out Plan for community broadcasting in Thailand and may resolve to award the grant of licences over a period of time, in order to ensure the sustainability of the community broadcasting sector in Thailand
- (i) A consideration for the NBTC in developing this Roll-Out Plan is to note expressions of interest from particular local communities in developing a community broadcasting service

3. The Governance of Community Broadcasting

- (a) The community broadcasting licensee must have a Board who come from the community that the station serves
- (b) The Board should be elected every two years and meet no less than at two monthly intervals
- (c) The Board should include representatives from a diverse range of community interests, such as:
 - i. Education
 - ii. Health
 - iii. sport and recreation
 - iv. religion
 - v. arts and culture
 - vi. youth
 - vii. women's development
 - viii. people with disabilities
- (d) The Board should be selected from women and men
- (e) The Board should appoint Committee members for the role of President, Secretary and Treasurer

- (f) The Board should appoint a Community Station Co-ordinator who manages the day-to-day operations of the station
 - (i) The Community Station Co-ordinator may be remunerated or act as a volunteer
 - (ii) If the Community Station Co-ordinator is remunerated, it must be at a reasonable rate that does not exceed what is comparable to similar supervisory roles in the Thai media industry
- (g) The Community Station Co-ordinator shall be the contact person for the NBTC, particularly in any complaint handling
- (h) The community broadcasting licensee should have at least two public meetings each year of which one should be an Annual General Meeting, to report on receive feedback on strategy, receive financial and operational reports and hear comments about station performance and new opportunities
- (i) A Community Broadcasting Station shall have an Internet web site to include the station program schedule; station location and contact details; names of Board; name and contact details of the Station Co-ordinator; list of financial donors and the amount donated; and with the capacity to live stream the audio output of the station
- (j) As well as a web site, a community station should consider engaging in social media to enhance its connection with its audience
- (k) The community broadcasting licensee should arrange for good practices on keeping financial and administrative records. These records will have to be audited at least once a year by an external and accredited accountant. Outcome of these audits should be send to the NBTC and the community members, as well as being published on the station's website.

4. Community Broadcasting is Not for Profit

- (a) A community broadcasting licensee is unable to distribute any financial surplus to any other entity
- (b) Any surplus from a community broadcasting station must be re-invested in the station itself

- (c) Typically, most, if not all, community broadcasters are unpaid volunteers but if any person is paid by the community broadcaster it should not be at higher than equivalent market rates for a comparable type of work
- (d) A community broadcaster may raise revenue by acknowledging station donors on air
 - (i) These announcements must not exceed in total five minutes per broadcast hour
 - (ii) The announcement cannot be in the form of an advertisement and should acknowledge the donor by name and provide contact details
- (e) Community Service or Family announcements broadcast for a small fee may be an additional source of revenue
- (f) All donor contributions to a community broadcasting station must be published on the station's web site and announced on air, acknowledging the source of the donation and the amount

5. Accountabilities of a Community Broadcasting Licensee

- (a) A community broadcasting licensee must comply with the Constitution and Laws of Thailand
- (b) If a community broadcasting licensee broadcasts content that the licensee has not produced itself and is on behalf of a community or interest group, then the name of the speakers and the organisation from which they come shall be broadcast before and after the content is broadcast
- (c) A community broadcasting licensee shall, produce a Code of Practice that is particular to that community station and include provisions that address the following:
 - (i) Ensuring diversity of viewpoint and fairness
 - (ii) Ensuring respect for diverse viewpoints
 - (iii) Ensuring diversity of broadcasters
 - (iv) Dealing with disputes
 - (v) Policy on Right of Reply
 - (vi) Responding to audience complaints
 - (vii) Individuals access to broadcasting

- (viii) Broadcasting political content
 - (ix) Providing broadcasting time to community groups
 - (x) Volunteer rights and responsibilities
 - (xi) Responsibility for scheduling
 - (xii) Presenter's responsibilities
 - (xiii) Ensuring accuracy in factual coverage
 - (xiv) Maintaining production and technical standards
 - (xv) The responsibilities of the Management Committee and the Station Co-ordinator
 - (xvi) Transparent and open reporting of community station operations to the Association members, the community station audience and the community to which it serves
 - (xvii) Training and development of broadcasters
- (d) A model Community Broadcasting Code of Practice, addressing the matters identified in 5(c), will be provided by the NBTC for use by a licensee but a licensee may produce their own Code, providing the matters in 5(c) are addressed

6. Return of Community Television License

- (a) A community television licensee may return its license to the NBTC before the end of a current license period if the station's operation proves to be not viable
- (b) Before accepting the return of such a license, the NBTC will conduct an investigation into the station's viability
- (c) In the event of the NBTC accepting the return of a license, the NBTC may invite applications for the license from other parties

7. Review of Community Television Regulations

The NBTC may review these regulations from time to time, particularly when issues may arise in the development of community broadcasting in Thailand.

Appendix 3: Sites per CTV Area and estimated distribution fees

Table 2 shows the DTTB sites per CTV area for reaching 95% rooftop coverage in all 39 CTV areas combined. Table 2 does not include the 11 sites needed to improve Portable Indoor (PI) coverage. Table 2 also shows the *estimated average* distribution fee for one SD CTV service to be broadcasted in each of the 39 CTV areas.

It is noted that the following key assumptions were made for calculating the estimated distribution fees:

- (1) Based on the published distribution fees for the distribution of National services for 95% rooftop reception (population coverage);
- (2) The CTV network (in a region) is fully utilised, meaning:
 - (a) A fully loaded CTV multiplex, carrying 12 SD services, implying that the *average* price per SD service will be higher if the multiplex carries less than 12 SD services;
 - (b) Broadcasting the CTV services over all transmitter sites in the CTV region, again implying that the *average* price (per site) will be higher if not all CTV broadcasters distribute their service over all sites in the CTV area;
- (3) DTTB Plan 3.3 has been deployed⁴⁰, meaning that 171 sites are deployed with the site characteristics as included in this Plan (such as frequency, Effective Radiated Power, antenna height and diagram);
- (4) The same calculation method as applied for the calculation of the National service: Long Run Incremental Cost (LRIC), which is a cost based method;
- (5) The CTV distribution fees are calculated per site (and not for population covered), resulting from the assumption of having a cost based model applied;
- (6) The multiplex centre costs are calculated to be proportional to the number of sites. This is likely not to be true as the multiplex centre costs in a layer are driven by the number of service (as each service will require an encoder) and the number of CTV areas (as each area with require a multiplex centre) and not the number of sites. However, this assumption will be off-set by the cost saving possible when the Local layer is combined with the National layers. Sharing of infrastructure between the Local and National layers will bring down the costs of the Local layer.

TABLE 2: SITES PER CTV AREA AND MONTHLY DISTRIBUTION FEE PER SD SERVICE

Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
1	2	1	M	Bangkok	54

⁴⁰ See ITU report “DTTB Plan 3.3, after analogue TV switch-off and during transition”, dated 25 August 2015.

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Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
1	2	1.05	A2		
2	7	1.03	A2	Kanchana Buri	188
2	7	2	M		
2	7	2.01	A2		
2	7	2.02	A2		
2	7	2.03	A3		
2	7	2.04	A3		
2	7	3.05	A2		
3	7	3	M	Singburi	188
3	7	3.01	A1		
3	7	3.02	A1		
3	7	3.04	A1		
3	7	3.06	A3		
3	7	3.07	A3		
3	7	30.01	A1		
4	7	1.01	A1	Rayong	188
4	7	1.02	A1		
4	7	1.04	A2		
4	7	4	M		
4	7	4.01	A2		
4	7	4.02	A3		
4	7	4.03	A3		
5	3	1.06	A3	Sakaeo	81
5	3	5	M		
5	3	5.02	A2		
6	2	6	M	Trat	54
6	2	6.01	A3		
7	6	7	M	Prachaub Khiri Khun	161
7	6	7.01	A1		
7	6	7.02	A1		
7	6	7.03	A1		
7	6	7.04	A3		
7	6	7.05	A3		
8	5	3.03	A1	Nakhon Ratchasima	135
8	5	5.01	A1		
8	5	8	M		
8	5	8.02	A1		
8	5	8.03	A2		
9	4	9	M	Chaiyaphum	108
9	4	9.01	A1		
9	4	9.02	A2		

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Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
9	4	9.03	A3		
10	4	8.01	A1	Surin	108
10	4	10	M		
10	4	10.01	A1		
10	4	10.02	A2		
11	3	11	M	Sisaket	81
11	3	11.02	A3		
11	3	12.01	A1		
12	6	11.01	A2	Ubon Ratchathani	161
12	6	12	M		
12	6	12.02	A2		
12	6	12.03	A2		
12	6	12.04	A2		
12	6	12.05	A3		
13	4	13	M	Mukdahan	108
13	4	13.01	A1		
13	4	13.02	A3		
13	4	15.06	A3		
14	4	10.03	A3	Roi Et	108
14	4	14	M		
14	4	14.01	A1		
14	4	15.05	A3		
15	6	9.04	A3	Khon Kaen	161
15	6	15	M		
15	6	15.01	A1		
15	6	15.02	A1		
15	6	15.03	A1		
15	6	15.04	A2		
16	3	16	M	Loie	81
16	3	16.02	A3		
16	3	30.02	A2		
17	4	16.01	A1	Udonthani	108
17	4	16.03	A3		
17	4	17	M		
17	4	17.01	A2		
18	2	18	M	Buengkan	54
18	2	19.02	A3		
19	2	19	M	Sakhon Nakhon	54
19	2	19.01	A1		
20	10	20	M	Chiang Mai	269
20	10	20.01	A1		

Framework for Deploying Community Television Broadcasting Services in Thailand

Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
20	10	20.02	A1		
20	10	20.03	A2		
20	10	20.05	A2		
20	10	20.06	A2		
20	10	20.07	A3		
20	10	20.08	A3		
20	10	20.09	A3		
20	10	20.1	A3		
21	4	21	M	Mae Hong Son Doi kong mu	108
21	4	21.01	A1		
21	4	21.02	A1		
21	4	21.03	A1		
22	4	20.04	A2	Lampang	108
22	4	22	M		
22	4	22.01	A1		
22	4	22.04	A3		
23	12	20.11	A3	Chiang Rai	323
23	12	22.02	A2		
23	12	23	M		
23	12	23.01	A1		
23	12	23.03	A2		
23	12	23.04	A2		
23	12	23.05	A2		
23	12	23.06	A3		
23	12	23.07	A3		
23	12	23.08	A3		
23	12	23.09	A3		
23	12	23.1	A3		
24	4	23.02	A1	Nan	108
24	4	23.11	A3		
24	4	24	M		
24	4	24.01	A1		
25	4	22.03	A3	Phrae	108
25	4	25	M		
25	4	25.01	A2		
25	4	26.01	A3		
26	1	26	M	Utaradit	27
27	5	27	M	Sukhothai	135
27	5	27.01	A1		
27	5	27.02	A2		
27	5	27.04	A3		

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Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
27	5	29.01	A1		
28	4	28	M	Tak	108
28	4	28.01	A1		
28	4	28.02	A2		
28	4	28.03	A3		
29	2	29	M	Nakhon Sawan	54
29	2	29.02	A2		
30	4	27.03	A2	Phetchaboon	108
30	4	30	M		
30	4	30.03	A3		
30	4	30.04	A3		
31	5	31	M	Chumphon	135
31	5	31.01	A1		
31	5	31.02	A1		
31	5	31.03	A3		
31	5	32.01	A3		
32	2	32	M	Ranong	54
32	2	33.03	A3		
33	5	33	M	Surat Thani	135
33	5	33.01	A1		
33	5	33.04	A3		
33	5	33.05	A3		
33	5	35.02	A2		
34	9	33.02	A2	Phuket	242
34	9	34	M		
34	9	34.01	A1		
34	9	34.02	A1		
34	9	34.03	A1		
34	9	34.04	A2		
34	9	34.05	A2		
34	9	34.06	A2		
34	9	34.07	A3		
35	3	35	M	Nakhon Sri Thumarat	81
35	3	35.01	A1		
35	3	35.03	A3		
36	1	36	M	Trang	27
37	3	37	M	Song Khla	81
37	3	37.02	A2		
37	3	38.01	A3		
38	1	38	M	Satun	27
39	7	37.01	A2	Yala	188

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Community TV area	# of sites in CTV area	Site number	Type	CTV Area name	Monthly fee per CTV SD service (in k THB)
39	7	39	M		
39	7	39.01	A1		
39	7	39.02	A1		
39	7	39.03	A1		
39	7	39.04	A3		
39	7	39.05	A3		

Appendix 4: Coverage per CTV Area

In this Appendix the coverage per CTV area is provided in terms of household coverage and geographical coverage. These coverage figures are based on extensive frequency planning work carried out by the ITU and NBTC in a joint project. A range of reports have been produced on the planning of the DTTB networks, included the network for CTV services (i.e. the sixth multiplex – Mux 6). The final report on the DTTB planning is titled “DTTB Plan 3.3 in Thailand, after analogue TV switch-off and during transition”, dated 25 August 2015.

This reports includes the coverage per CTV area, both in terms of household coverage and geographical coverage. It is important to note that the used population database, as provided by NBTC, includes a total population of 64,505,166 people and 22,865,383 households.

Household coverage per CTV area

The household coverage of Mux 6 per community TV area is shown in Figure 8. It is noted that the presented figures are for rooftop reception (FX). CTV area 1 is Bangkok and 39 is Yala (see also Table 2). The largest CTV area is area 1 (Bangkok) covering 7 million households (= 20 million people) and the smallest is CTV area 21 (Mae Hong Son Doi kong mu) covering 45,800 households (= 129,000 people).

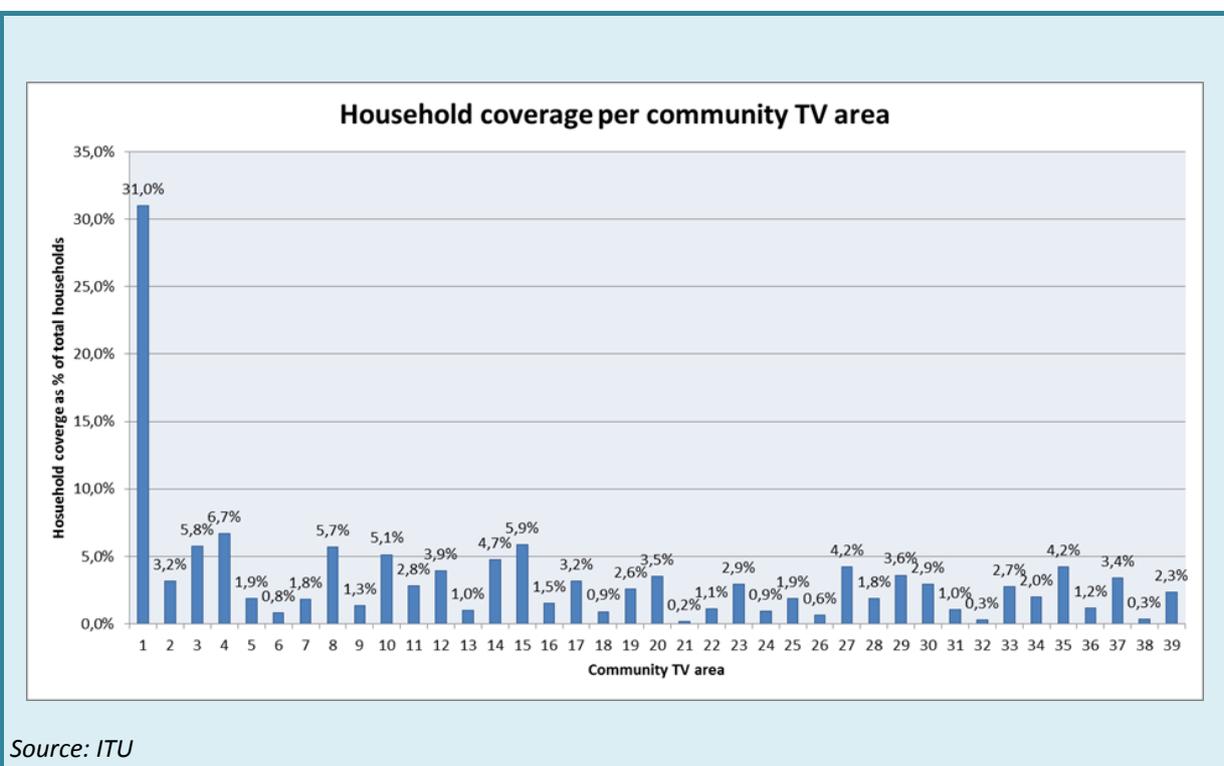


FIGURE 8: HOUSEHOLD COVERAGE PER CTV AREA IN % OF TOTAL HOUSEHOLDS

The sum of the coverage per community TV area is more than 100%. Because of overlapping community TV coverage areas, about 30% of the households are covered by more than one CTV service.

Geographical coverage per CTV area

The CTV rooftop coverage of each of the 39 CTV coverage areas is shown in Figure 9 to Figure 47. It is noted that the white lines in the figures mark the province borders and the purple lines the tambons (the smallest administrative areas). From these figures it can be observed that CTV areas cover multiple provinces and can cover large areas and number of people. For example, CTV area 1 (Bangkok) covers (partly) over 15 provinces and 31% of the population (i.e. 20 million people).

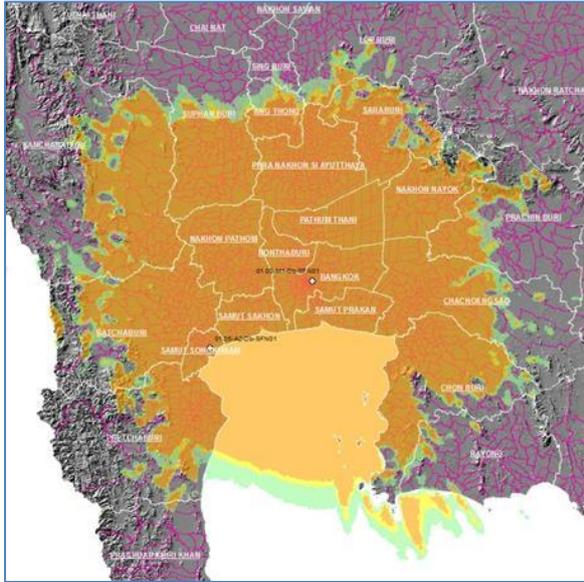


FIGURE 9: COMMUNITY TV AREA 1 (BANGKOK)

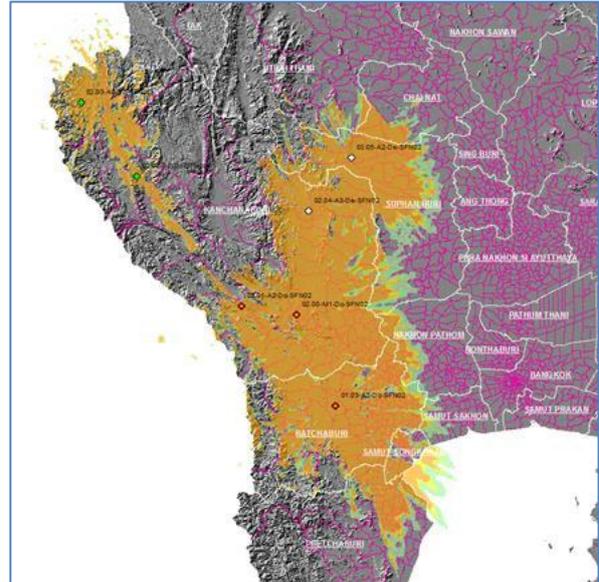


FIGURE 10: COMMUNITY TV AREA 2 (KANCHANA BURI)

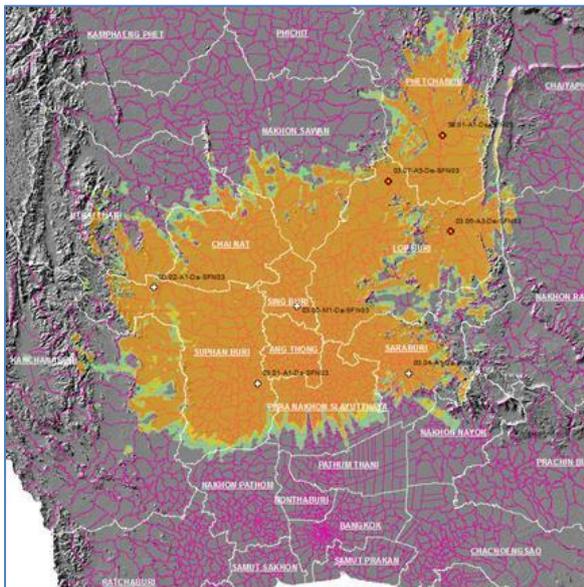


FIGURE 11: COMMUNITY TV AREA 3 (SINGBURI)

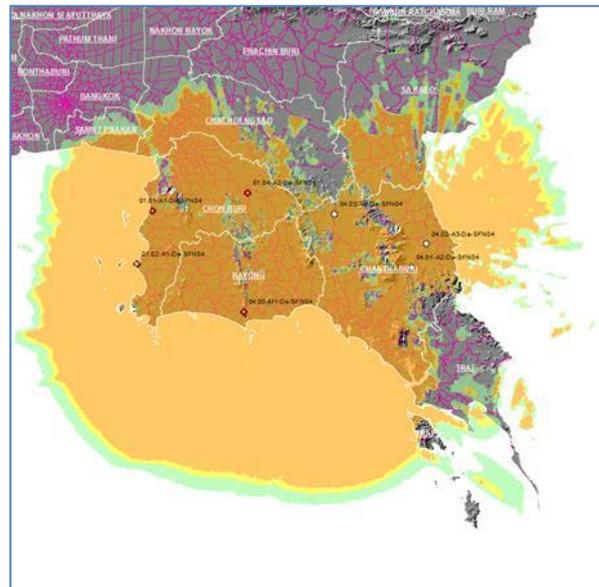


FIGURE 12: COMMUNITY TV AREA 4 (RAYONG)

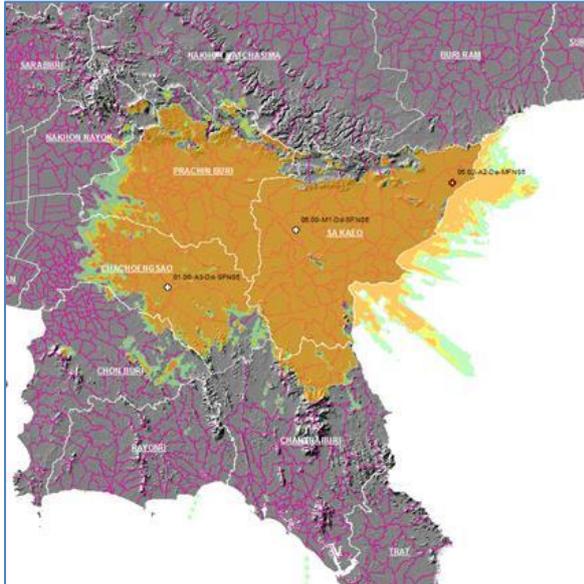


FIGURE 13: COMMUNITY TV AREA 5 (SAKAEO)

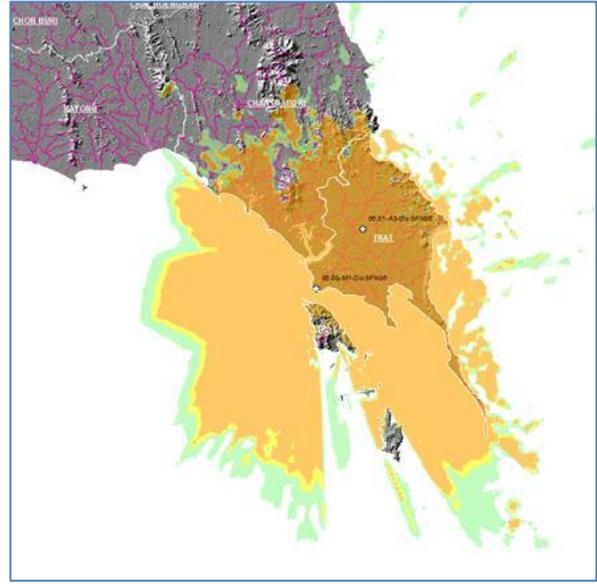


FIGURE 14: COMMUNITY TV AREA 6 (TRAT)

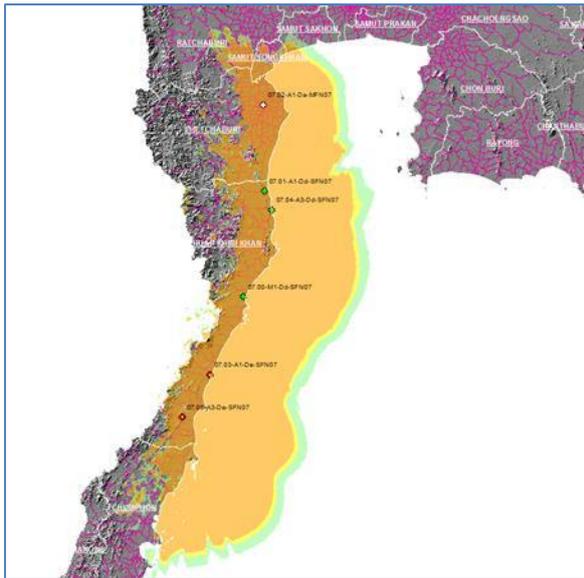


FIGURE 15: COMMUNITY TV AREA 7 (PRACHAU KHIRI KHUN)

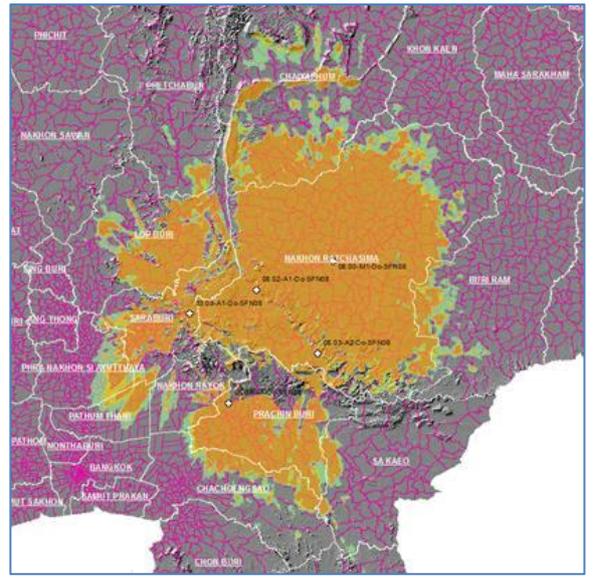


FIGURE 16: COMMUNITY TV AREA 8 (NAKHON RATCHASIMA)

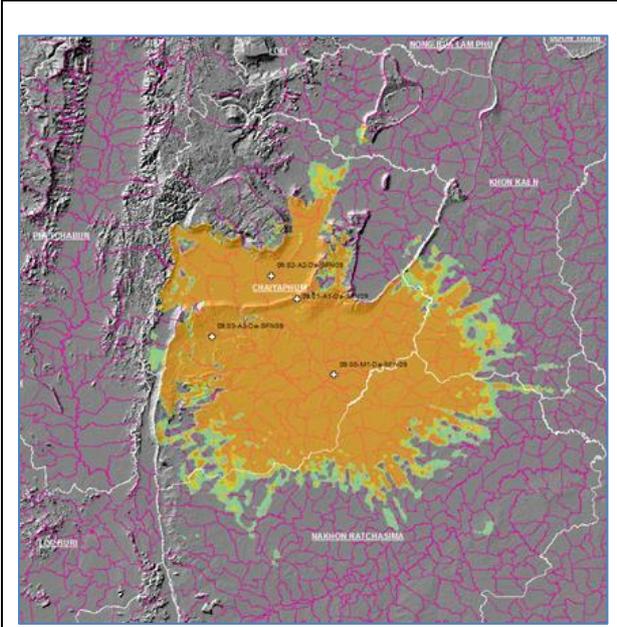


FIGURE 17: COMMUNITY TV AREA 9 (CHAIYAPHUM)

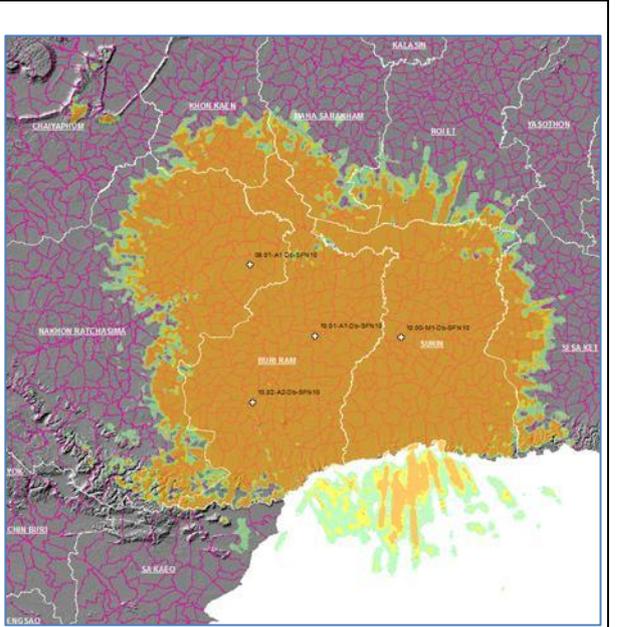


FIGURE 18: COMMUNITY TV AREA 10 (SURIN)

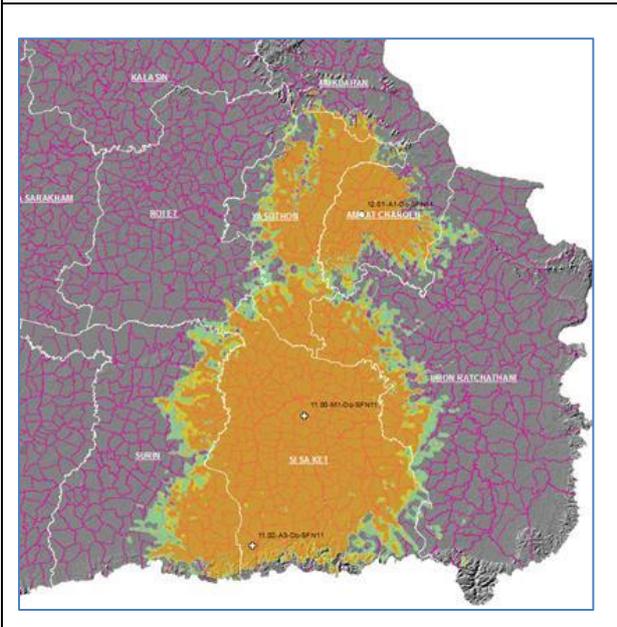


FIGURE 19: COMMUNITY TV AREA 11 (SISAKET)

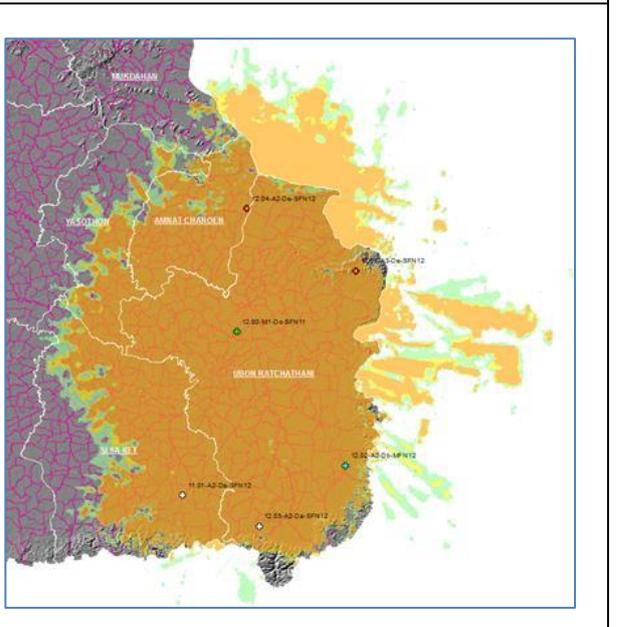


FIGURE 20: COMMUNITY TV AREA 12 (UBON RATCHATHANI)

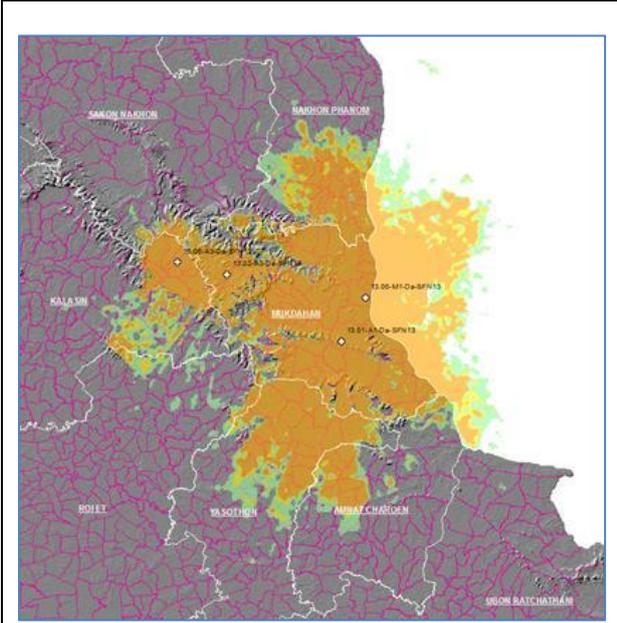


FIGURE 21: COMMUNITY TV AREA 13 (MUKDAHAN)

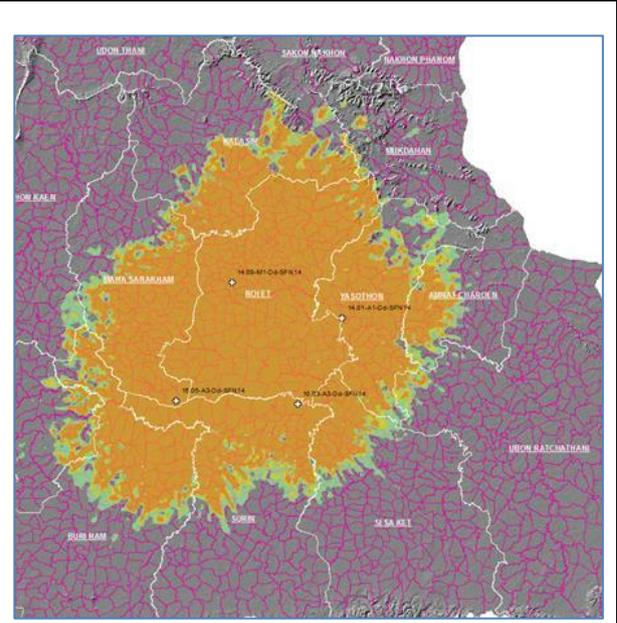


FIGURE 22: COMMUNITY TV AREA 14 (ROI ET)

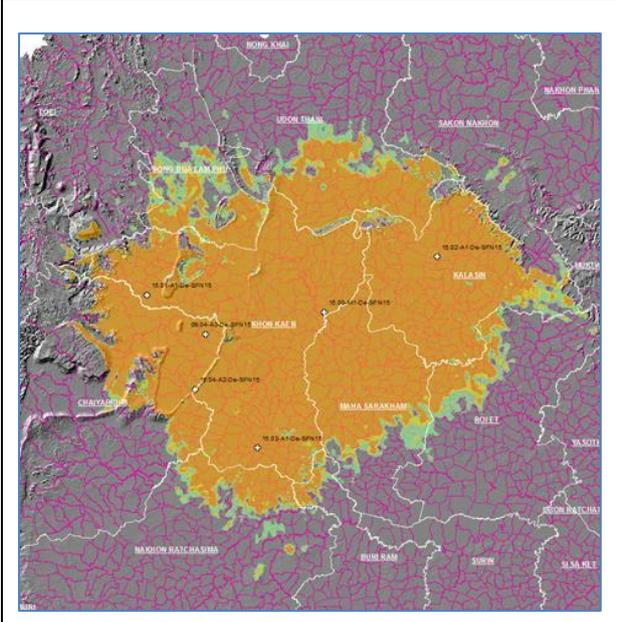


FIGURE 23: COMMUNITY TV AREA 15 (KHON KAEN)

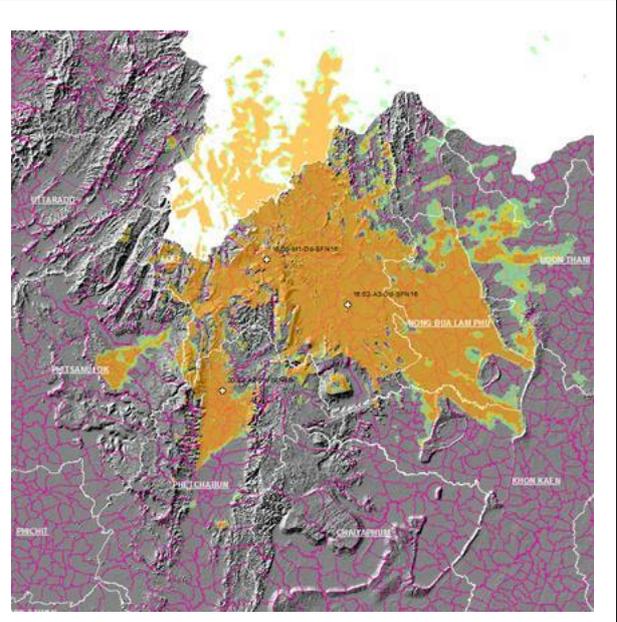


FIGURE 24: COMMUNITY TV AREA 16 (LOIE)

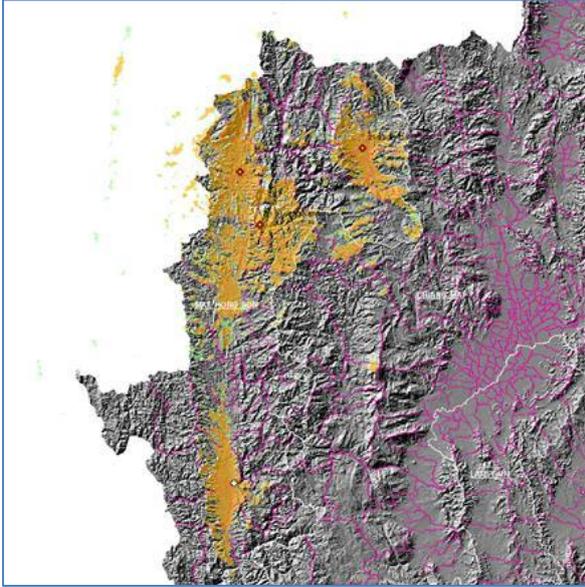


FIGURE 29: COMMUNITY TV AREA 21 (MAE HONG SON DOI KONG MU)

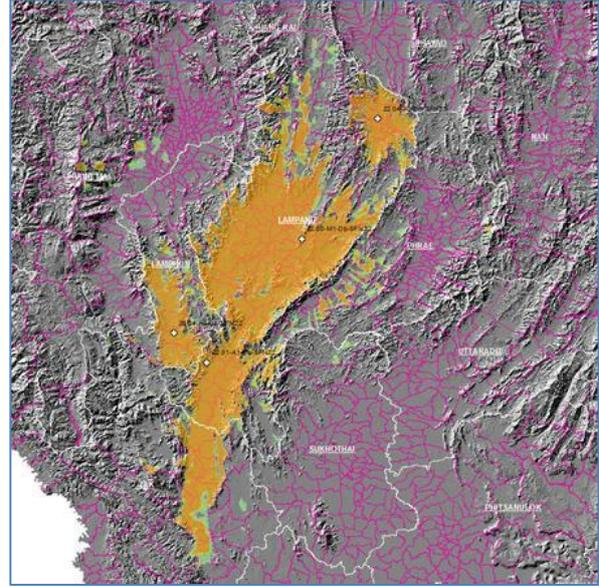


FIGURE 30: COMMUNITY TV AREA 22 (LAMPANG)

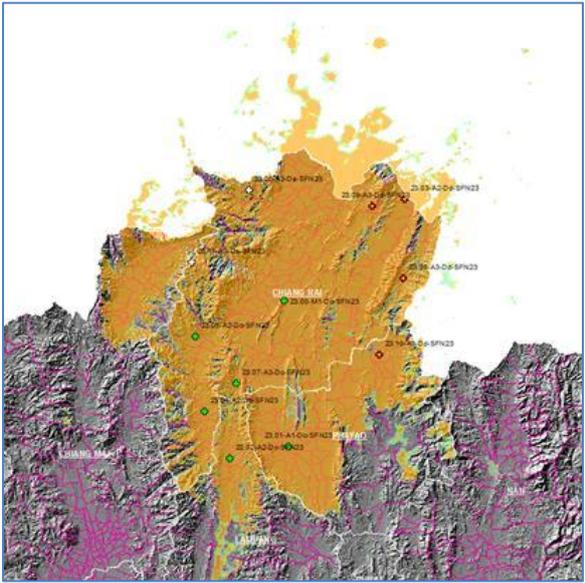


FIGURE 31: COMMUNITY TV AREA 23 (CHIANG RAI)

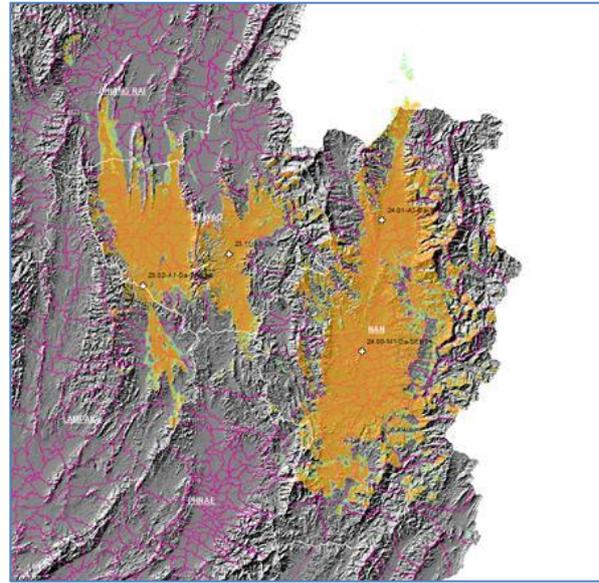


FIGURE 32: COMMUNITY TV AREA 24 (NAN)

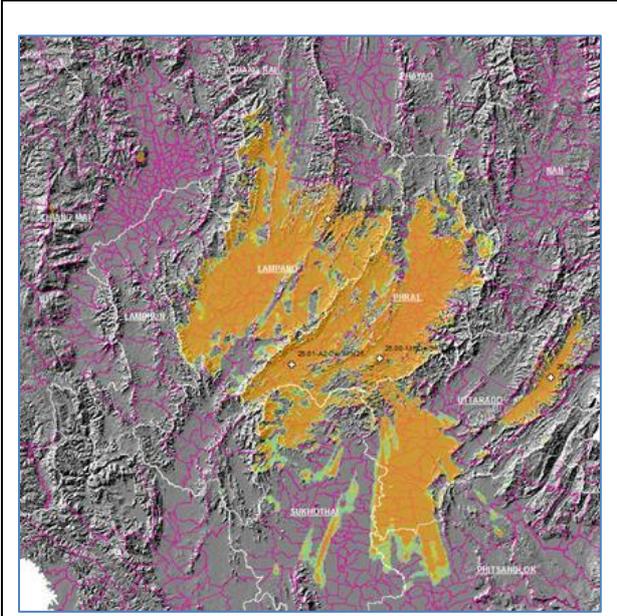


FIGURE 33: COMMUNITY TV AREA 25 (PHRAE)

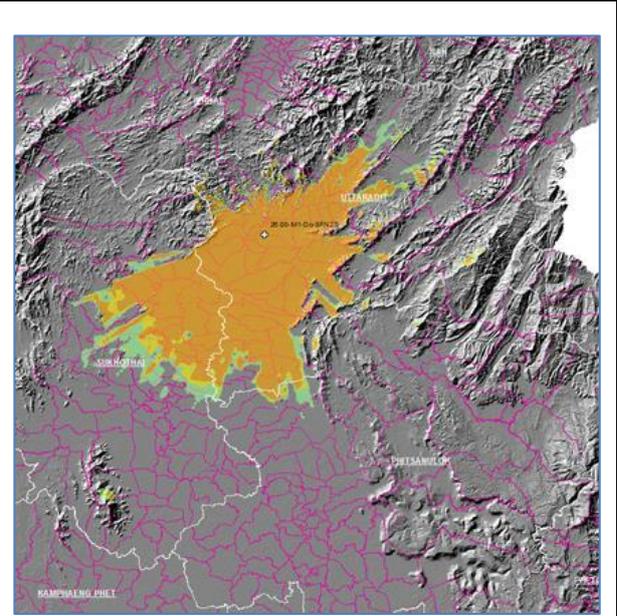


FIGURE 34: COMMUNITY TV AREA 26 (UTARADIT)

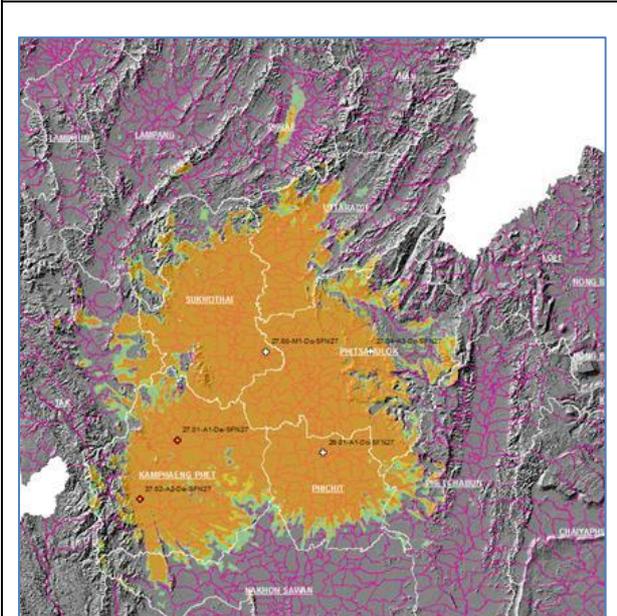


FIGURE 35: COMMUNITY TV AREA 27 (SUKHOTHAI)

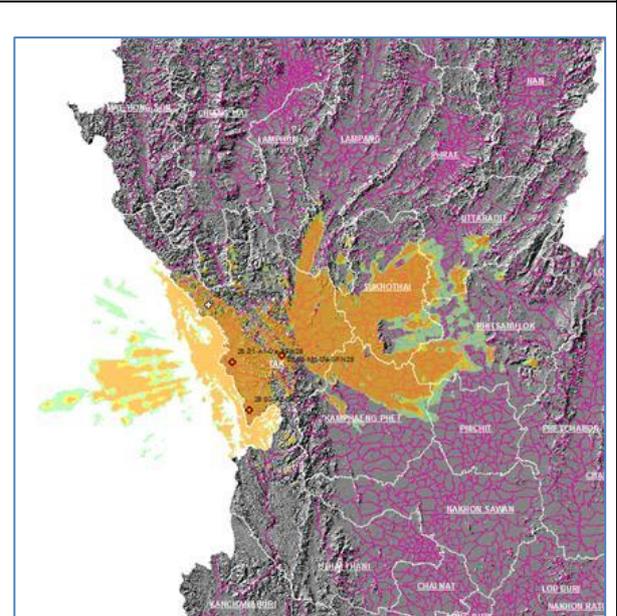


FIGURE 36: COMMUNITY TV AREA 28 (TAK)

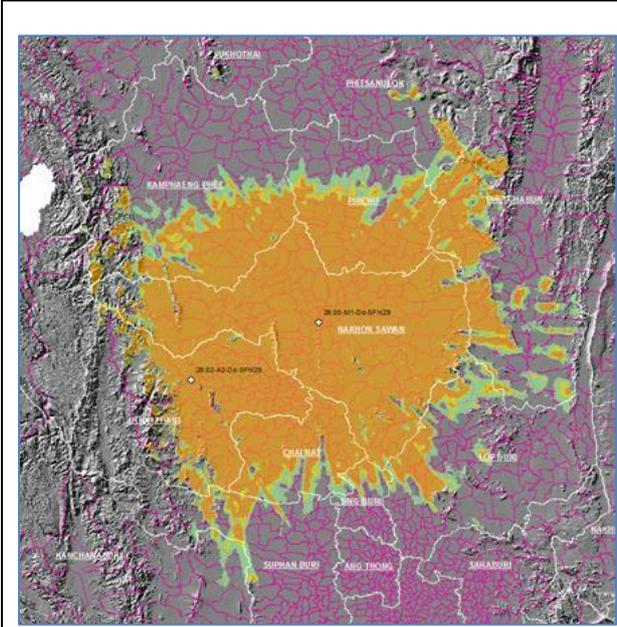


FIGURE 37: COMMUNITY TV AREA 29 (NAKHON SAWAN)

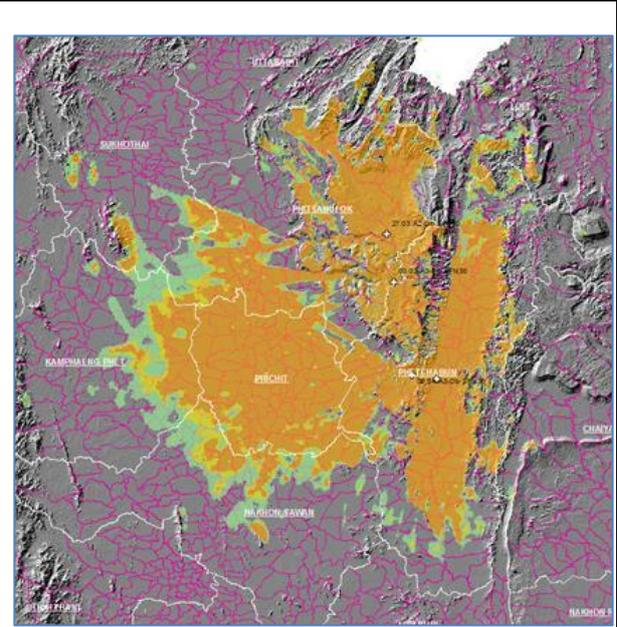


FIGURE 38: COMMUNITY TV AREA 30 (PHETCHABOON)

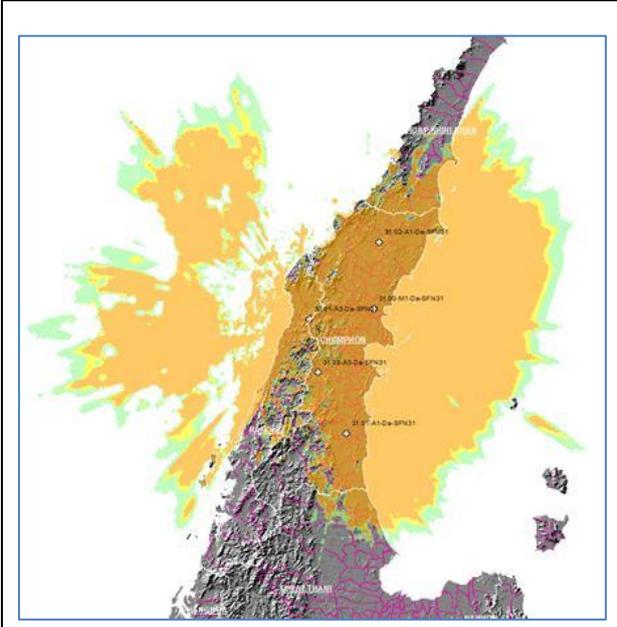


FIGURE 39: COMMUNITY TV AREA 31 (CHUMPHON)

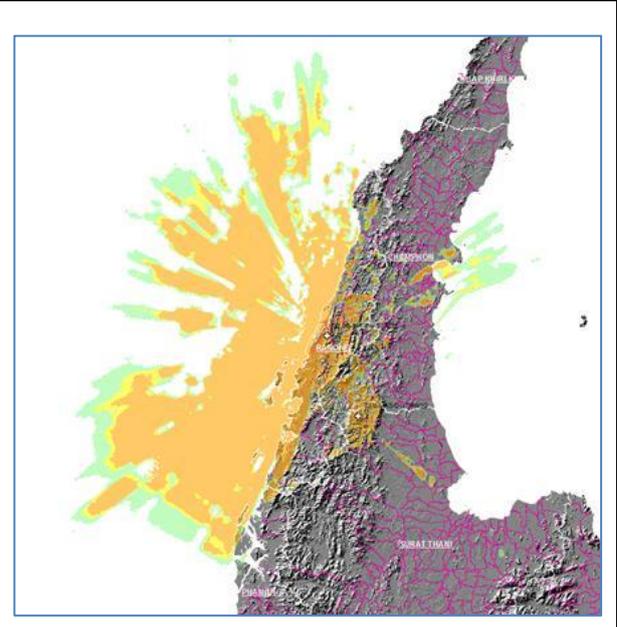


FIGURE 40: COMMUNITY TV AREA 32 (RANONG)

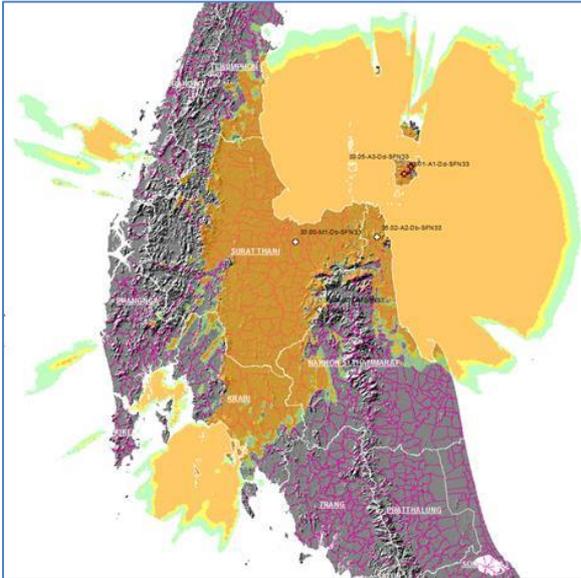


FIGURE 41: COMMUNITY TV AREA 33 (SURAT THANI)

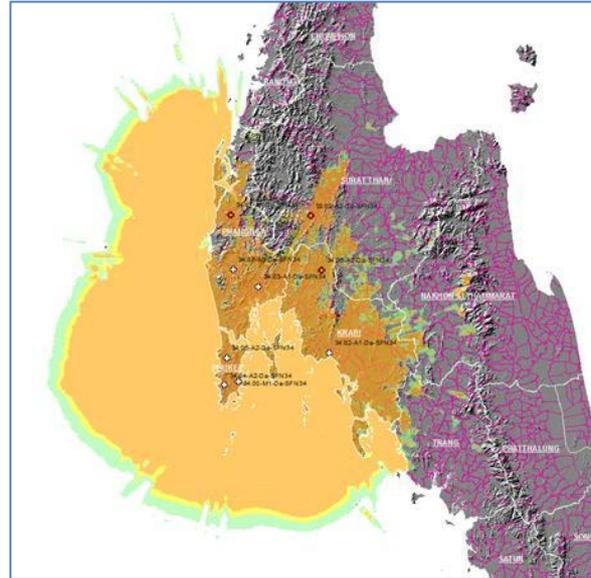


FIGURE 42: COMMUNITY TV AREA 34 (PHUKET)

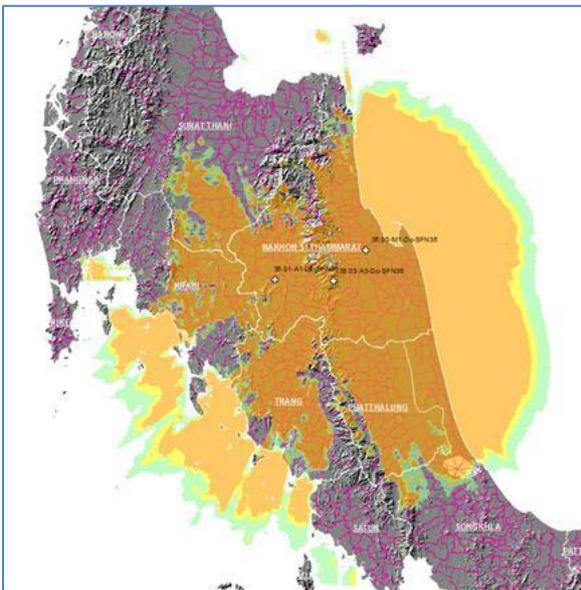


FIGURE 43: COMMUNITY TV AREA 35 (NAKHON SRI THUMARAT)

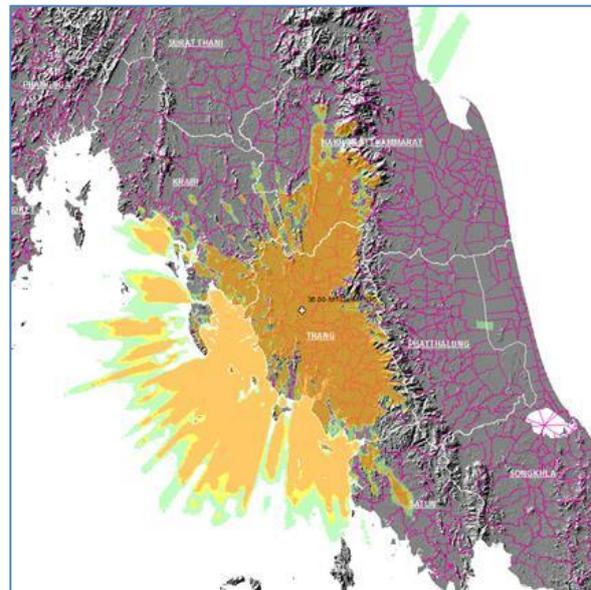


FIGURE 44: COMMUNITY TV AREA 36 (TRANG)

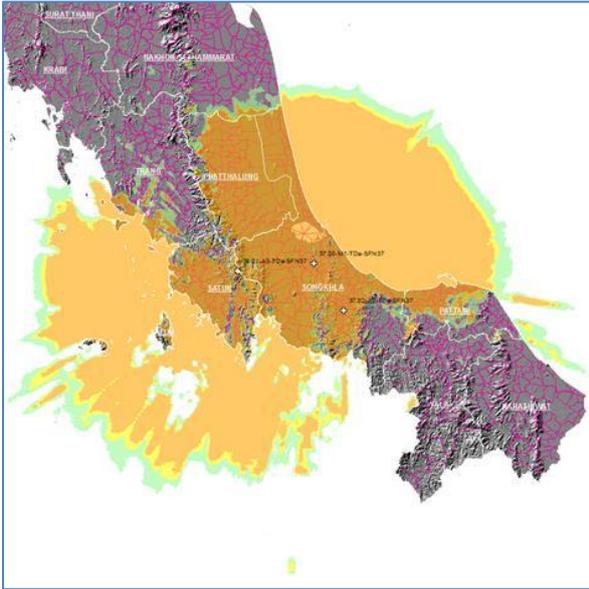


FIGURE 45: COMMUNITY TV AREA 37 (SONG KHLA)

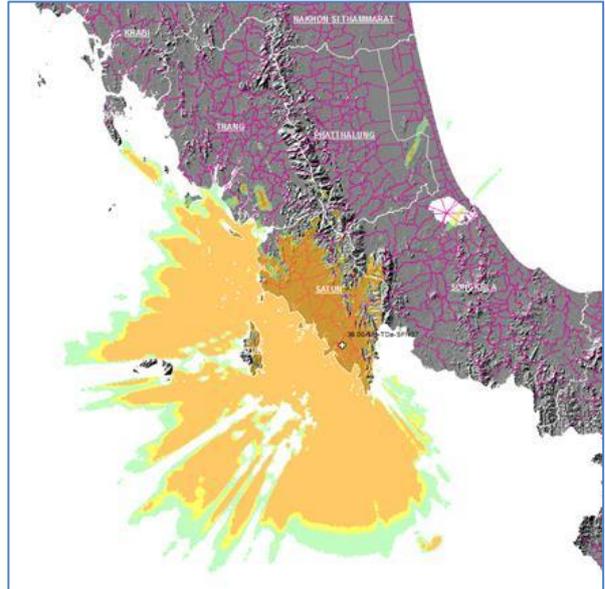


FIGURE 46: COMMUNITY TV AREA 38 (SATUN)

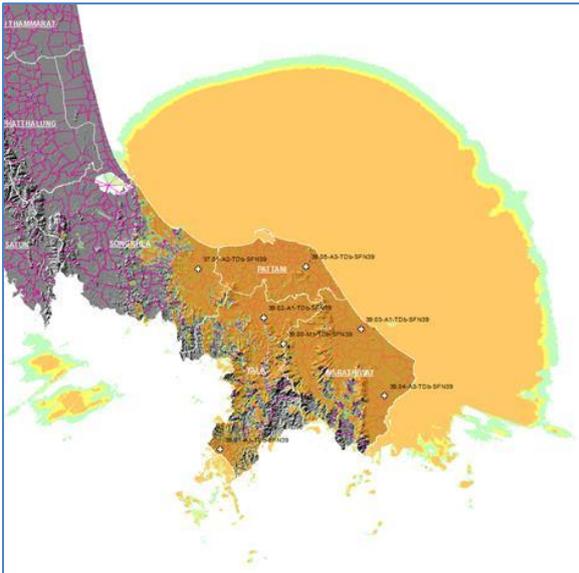


FIGURE 47: COMMUNITY TV AREA 39 (YALA)

Appendix 5: Proposed model for CTV Code of Practice

This model code is for community television broadcasters to adopt as their obligation to develop a station Code of Practice. Alternately, a community television station may adopt its own Code of Practice provided the matters in 5(c) of the Community Television Regulation are addressed.

This Community Television Code is to be understood in addition to the requirements of the Laws of Thailand. The principle-based Code that follows is indebted to the approach of the Community Broadcasting Association of Australia.

Principle 1: A community station should meet community interests

- (a) There should be a diversity of community interests in the content and operation of the community station
- (b) Presenters on the station should represent the diversity of the community it serves, including diversity of age, gender, interests and culture
- (c) If there are minorities in the community, such as language minorities, opportunity to broadcast should be considered
- (d) The programme schedule of the station should reflect the range of interests in the community it serves in a fair way
- (e) Organisations and individuals should be considered when preparing the programme schedule
- (f) The majority of time in the programme schedule should reflect local community interests

Principle 2: A community station should be independent

- (a) A community station should be independent in its decision-making and operation
- (b) The community station's peak decision making forum is the Board
- (c) The operation of the community station will be overseen by the Board and, on a day to day basis, by the Station Co-ordinator, who shall be responsible to the Board
- (d) Board decisions will be available to all members
- (e) No political or business or other interests shall influence the operations or content of a community station, which shall be operated for the sole interests of its members and audience.

Principle 3: Content on the community station should demonstrate a diversity of perspectives and respect a diversity of views

- (a) In issues of controversy, the principal perspectives on an issue in contention should be broadcast
- (b) A right of reply may be granted to a person or organisation that has been critiqued but the opportunity and extent of a right of reply should be decided by the Station Co-ordinator
- (c) Community broadcasting is characterised by democratic discourse and sometimes divergent and conflicting views are part of this. A community broadcaster should ensure that such discourse is conducted fairly, without any one perspective crowding out other views

Principle 4: Community broadcasting volunteers should be valued

- (a) Community station volunteers should be properly inducted into the policies and practice of the community station
- (b) Community broadcasting volunteers should have media skill development opportunities within the station
- (c) Community broadcasting volunteers should be clear about their roles and responsibilities
- (d) A grievance process should be in place for community broadcasting volunteers within the station

Principle 5: Accuracy in content is critical to the credibility of a community broadcasting station

- (a) Community broadcasters should endeavour to ensure that information broadcast is accurate
- (b) Accuracy can be achieved by seeking verification of information before broadcast
- (c) In live station produced content, accuracy can be enhanced by a presenter questioning a guest's or contributor's claims
- (d) Accuracy is critical in the broadcast of emergency information that, where possible, should come directly from emergency services personnel
- (e) In opinion content views expressed should be based on accurate information
- (f) Where the accuracy of information is uncertain, this should be made clear to the audience, however, this does not mean that a community station can broadcast rumours

Principle 6: The governance of a community station should be open and transparent

- (a) The income and expenditure of a community station should be made publicly available on a timely and published at least annually on the station's website
- (b) A community station should ensure that there is a good standard of record keeping, including meeting minutes; accounts payable and receivable; assets and liabilities; current rates for advertising and sale of airtime; up to date list of volunteers and their responsibilities; frequency of equipment maintenance; and list of community groups who have been or are currently broadcasting
- (c) A list of donors and the date and amount of their contribution should be placed on the station's website (Community Broadcasting Regulation 4)
- (d) A community station must report annually to the NBTC

Principle 7: A community station should be particularly responsive to its audience in the handling of complaints

- (a) Any audience complaints about content should in the first instance be referred to the Station Co-ordinator
- (b) If the Station Co-ordinator is unable to resolve the matter, then the complaint should be referred to the station Board
- (c) If the Board is unable to resolve the matter, then the complaint may be referred to the NBTC
- (d) A complainant may go directly to the NBTC if there has been no response from a community station within 30 days
- (e) Audiences should be encouraged to use social media to provide feedback on station content
- (f) Any complaint should be in some form of writing
- (g) A record of complaints and whether they have been upheld should be kept by the community station
- (h) An upheld complaint has to be assessed against the relevant broadcasting legislation, regulation or code



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