Broadcasting and Community TV in Japan

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Outline

1. A Glance at Broadcasting in Japan
2. Digitization of Broadcasting
3. Broadcasting for Communities
Summary

• Japan doesn’t have public community TV dedicated to providing information or programs to local communities.
• Instead, CATV, local terrestrial broadcasting and community FM radio have played the role.
• The Government is aware of importance of providing information to local communities.
• Thanks to the technology development, a variety of media will be able to take the role.
1. A Glance at Broadcasting in Japan
Broadcasting in Japan

- Terrestrial broadcasting
  - TV
  - Radio
  - Medium wave (AM)
  - VHF (FM)
  - V-High
  - V-Low
- Satellite broadcasting
  - BS broadcasting
    - 110 degrees east longitude CS digital broadcasting
    - 124/128 degrees east longitude CS digital broadcasting
- Multi-media broadcasting
- Cable broadcasting (Cable TV/IPTV)
- Prefectural broadcasting
- Community broadcasting

Broadcasts targeting local municipalities

Terrestrial broadcasting

110 degrees east longitude CS digital broadcasting

124/128 degrees east longitude CS digital broadcasting

Cable broadcasting

Cable broadcasting

Broadcasting
The Number of Broadcasters or Channels in Japan

• 1 public nationwide broadcaster (NHK)
• 127 private broadcasters
  • 5 key stations
  • 109 subsidiary local broadcasters
  • 13 independent local broadcasters
• 99 radio stations
• 545 cable broadcasters
• Satellite
  • BS(Broadcasting Satellite) 29 Channels
  • CS(Communication Satellite)
    • 54 Channels at 110° East Longitude
    • 162 Channels at 124/128° East Longitude
Structure of the Japanese Terrestrial Broadcasting Stations

Key Stations (5)

- $K_1$
- $K_2$
- ...
- $K_5$

“Keiretsu” Broadcasters

Subsidiaries Segmented into Prefectures (109)

Local Stations (122)

Local Viewers

Indepedents (13)

Metropolitan Viewers
Source of Revenue

• NHK (Public broadcaster)
  • Covered by viewing fees which are collected from viewers.
  • Paying the viewing fees is regarded as an obligation for citizens.
  • Terrestrial = ¥1,260/month; Terrestrial + satellite = ¥2,230

• Commercial broadcasters
  • Advertisement revenue

• CATV and other wired TV
  • Subscription fees + advertisement
  • Internet services
  • Some are supported by local governments.
Recent Trend in TV Broadcasting

• There are threats from the Internet, especially Subscription VOD.

• NHK and Key commercial broadcasters have started to provide their programs through the Internet.

• Net TV may decrease the geographical diversities of programs.
2. Digitization of Broadcasting
Digitization of Terrestrial Broadcasting

- Digitization was determined in July 2001.
- Roll-out started on December 1st, 2003.
- Analog termination was designated by law on July 24, 2011.
- Completed in July 2011 except 3 prefectures close to the seismic center of 2011 East Japan Earthquake.
- 4 years were necessary for the follow-up
The Frequency Assignment Plan revised on December 2007.

VHF Band
- 90~108MHz: Broadcasting (multi-media mobile broadcasting, etc.)
- 170~222MHz: Self-owned communications (to preserve security and safety)
- 35MHz Wide

UHF Band
- 710~770MHz: ITS (mobile phones, etc.)
- 10MHz Wide
- 40MHz Wide
Radio Frequencies Reallocated after Digitalization of TV

- **Multimedia Broadcast**
  - Broadcasting for mobile terminals
  - On disaster
  - On a train, watching sports

- **Public Broadband**
  - Information
  - News

- **Security**
  - While walking

- **Disaster**
  - Anytime
  - Anywhere
  - Wherever

- **Fire/Emergency**
  - Anytime
  - Anywhere
  - Wherever

- **ITS**
  - Realization of new broadcasting service providing various information for wireless mobile

- **Mobile Telecommunications**
  - Broadband mobile communication system for safe and secure society
  - Collision detection by vehicle-to-vehicle communication
  - To meet the increasing demands for mobile phones

NBTC/ITU Conference on Community TV ©2015 Hitoshi MITOMO
3. Broadcasting for Communities
Broadcasting for Communities

• Combination of the following system
  1. Local terrestrial broadcasting (public + commercial)
  2. CATV*
  3. Community radio*
  4. White space
  5. Multimedia broadcasting
CATV in Japan

- Currently more than 500 CATV stations exist in Japan, but few Multiple System Operators (MSOs).
- Originally as a measure against poor reception of terrestrial.
- Restricted to a geographically small area.

Reachable households: 44.24 mil.  
TV subscriptions: 29.22 mil.  
Internet subscriptions: 6.02 mil.  
Telephone subscriptions: 4.94 mil.  
Total households in Japan: 55.58 mil.

Source: JCTA

Total optical fiber construction:
- Length: 258,489km
- Optical fiber trunk line: 64.6%
1. Community-based broadcasting
2. The main role is retransmission of programs released from key stations.
3. Community channels for providing information to local communities are provided.
4. Triple-play service (broadcasting, telephone, broadband)

**Broadcasting**
- Multi-channel broadcasting
  - Retransmission of terrestrial TV programs
- Community channel
  - Independent programs released for local communities

**Local community**

**Telecommunication**
- Broadband, IP phone
  - Public information service
    - Disaster prevention, medical/health care, education, public service support

• Providing a wide range of services from local content to community-oriented applications

Source: JCTA
Most CATV stations were established by local community including local governments for eliminating poor reception of terrestrial TV and revitalizing local economies.

A major capital investor is local governments.

### Close Relationship with Local Communities

75% of CATV stations are financially supported by local governments.

**Major capital investors of CATV stations**

- **Local governments:** 203 stations (37%)
- **Third sector companies:** 219 stations (40%)
- **Others:** 123 stations (23%)

**Total:** 545 stations

Source: JCTA
CATV Seeks to Be a Key Player in the Flow of Information in a Local Community

CATV is getting more into local communities, communications and the flow of information.
Community Broadcasting (FM Radio)

- Community broadcasting as community-based media* was first introduced in January 1992.
- Objectives:
  - to provide information closely related to local communities
  - To contribute to enhancing communication in local communities.

* In a radius of 5 to 15 km, receivable with commercially available FM radio receivers.
Programs Released from Community Broadcasting

- **Life information**
  - Road traffic
  - Hospitals
  - Weather forecasts
  - Entertainment

- **Administrative information**
  - Municipal public relations,
  - Municipal parliament information
  - Disaster information

- **Tourist information**
  - Sightseeing spots
  - Tourist facilities
  - Events

- **Local news**
• Community FM stations have been steadily spreading.
• Approximately 10 stations newly open every year.
• As of November 2015, a total of 294 stations are open in 46 prefectures.
A disaster broadcasting station is an FM radio station temporarily opened in time of a disaster, such as a storm, heavy rain, flood, earthquake, or large-scale fire.

Local governments make the most of it as a means of providing and collecting information.

Effective in providing locally customized information regarding shelters and lifeline restoration for disaster victims.

One month after the 1995 Great Hanshin-Awaji Earthquake, a license was issued to Hyogo Prefecture for an FM station in response to the request of the Prefecture.

Frequencies: Selected from idle frequencies reserved for FM radio.

Licensing: Simple immediate licensing procedures

⇒ Oral application and licensing
## Cases of Setting Up Temporary Broadcasting Stations after Disasters

<table>
<thead>
<tr>
<th>Type</th>
<th>Station established</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heavy rain and flood</strong> (4)</td>
<td>Tsuwano-cho (heavy rain in July 2013) (Already closed) Tamba (heavy rain in August 2014) (already closed) Joso (heavy rain from September 10, 2015 (Typhoon No. 18) (opened on September 14, 2015 and still in operation)) Tochigi (heavy rain from September 10, 2015 (Typhoon No. 18) (opened on September 15, 2015 and still in operation))</td>
</tr>
<tr>
<td><strong>Snow damage</strong> (1)</td>
<td>Yokote (Tohoku heavy snow in January 2011)</td>
</tr>
<tr>
<td><strong>Volcano</strong> (2)</td>
<td>Abuta-cho (Mt. Usu in Hokkaido from May through March 2000) Takaharu (Mt. Shinmoedake from April 2011 through March 2012)</td>
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</tbody>
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Temporary Broadcasting Stations in the time of the Great East Japan Earthquake in 2011

- Local governments opened broadcasting stations as a means of providing disaster information, evacuation information, etc.
- The first station opened on the day of the earthquake, providing rescue information, water and food supplies.
- Opened in 21 cities and towns damaged by the tsunami within a month after the quake.
- A total of 30 stations opened in 28 cities and towns.
- Currently, ten stations are in operation in nine cities and towns.

http://www.jayamagata.or.jp/news/news110418_02.html
http://blogs.yahoo.co.jp/yoshimizushrine/folder/1511484.html?p=1
### Differences between Temporary Broadcasting and Community Broadcasting

<table>
<thead>
<tr>
<th>Temporary disaster broadcasting station</th>
<th>Community broadcasting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antenna power</strong></td>
<td>Minimum required antenna power.</td>
</tr>
<tr>
<td></td>
<td>Less than 20 W in principle</td>
</tr>
<tr>
<td><strong>Licensee</strong></td>
<td>Local governments</td>
</tr>
<tr>
<td></td>
<td>Private corporations</td>
</tr>
<tr>
<td><strong>Period of license</strong></td>
<td>Period until the lives of victims have become stable. Re-licensing possible.</td>
</tr>
<tr>
<td></td>
<td>5 years. Re-licensing possible.</td>
</tr>
</tbody>
</table>
Pros and Cons of Community Broadcasting from the Japan’s Experience

• Pros
  • Provides locally customized information
  • Creates stronger ties within local communities
  • Useful especially when a disaster strikes local communities

• Cons
  • Financial difficulties for start-up and low profitability
  • Weak management bases
  • Limited commercial sponsorship
  • Necessity of public assistance
  • Low abilities of gathering information and program production
  • Competition with other broadcasting