

People's Republic of China

Ex-Post Evaluation of Japanese ODA Loan Project

“Broadcasting Infrastructure Improvement Project (Yunnan province)”

External Evaluator: Atsushi Tsukui, International Development Center of Japan Inc.

## **0. Summary**

The objective of this project was to improve television and radio broadcast programs in Yunnan province, in terms of both quantity and quality, by replacing equipment at both Yunnan TV Station (hereinafter called YTVS) and Yunnan Radio Station (hereinafter called YRS) as well as implementing the training in Japan, thereby contributing to the advancement of education, cultural enrichment, and knowledge enhancement for the citizens of Yunnan province, and the promotion of mutual understanding between Japan and China. This project is closely related to China's development plans, development needs, and Japan's ODA policy; therefore, its relevance is high. Additionally, the project cost was within the plan; however, the project period significantly exceeded the plan. Therefore its efficiency is fair. Both the population coverage rate and the viewership set as the project target criteria steadily increased, which evidences the project effectiveness. The efficiency of the program production is improved through the use of the procured digital equipment. The effectiveness of the training in Japan, such as the introduction of the Japanese open-plan studio, and the discussion style among citizens or intellectuals on radio programs has been observed; the improvement of the quality of broadcasting services (both in hardware and software) has contributed to the advancement of education, cultural enrichment, and knowledge enhancement for the citizens, especially for ethnic minority people of Yunnan; therefore, the effectiveness and impact are high. Regarding the sustainability of the project, the status of the organizational, technical, and financial aspects have been stable and sufficient. In this way, the sustainability of the effectiveness of the project is high.

Based on the above facts, this project is evaluated to be highly satisfactory.

## 1. Project Description



Project Location



Yunnan TV and Radio Station

### 1.1 Background

Broadcasting stations in China exist at the (1) central, (2) provincial/municipal/autonomous-regional, (3) prefectural, and (4) county levels and are supervised by the corresponding governments. In 2001, the percentage of population coverage in the whole country was 94% for television, which meant that the broadcasting services had attained their mission of information provision, cultural enrichment, and advancement of education for the citizens to some extent. For the sake of further socioeconomic development, the government aimed at the improvement of information delivery and cultural enrichment to people by setting a target of 97% population coverage for television by 2010.

Yunnan province, the target area of the project, had a population of 62,870,000 people (in 2001), comprising 25 ethnicities (documents provided by JICA). Its location has specifically historical and geographical characteristics: its border is shared with Myanmar in the west and with Laos and Vietnam in the south and south-east; additionally, the province lagged behind the socio-cultural development of the coastal areas. In 2001, there were approximately 7 million poor people. The Yunnan government established policies for the provision of cultural knowledge, education, disaster forecasting/prevention, and technology to the people through the broadcasting sector in its development plan. However, YTVS and YRS suffered from disadvantageous conditions for creating quality programs because they lacked digital equipment and facilities, caused by many years of financial shortages.

Based on the background above, the project aimed at the improvement of broadcasting programs in Yunnan both in quantity and quality to contribute to the advancement of education, cultural enrichment, and knowledge enhancement for citizens, and also, to deepen mutual understanding between Japan and China. Further, the project planned to

introduce Japanese broadcasting technology and equipment to China through the Special Terms for Economic Partnership (STEP)<sup>1</sup> program.

## 1.2 Project Outline

The objective of this project is to improve the quantity and quality of TV and radio programs in Yunnan by replacing broadcasting equipment and providing training in Japan to the staff of the broadcasting stations. In this way, the project contributes to the advancement of education, cultural enrichment, and knowledge enhancement for the citizens of Yunnan, and also to the promotion of mutual understanding between Japan and China.

### <ODA Loan Project>

Loan Approved Amount/ Disbursed Amount	3,008 million yen / 3,005 million yen
Exchange of Notes Date / Loan Agreement Exchange Date	March 2004 / March 2004
Terms and conditions	Interest rate: 0.75% Repayment period: 40 years (Grace Period 12 years) Condition for Procurement: Tied (Special Terms for Economic Partnership(STEP))
Borrower / Executing Agency	Government of the People's Republic of China / People's Government of Yunnan province
Final Disbursement Date	August 2012
Main Contractor (Over 1 billion yen)	Marubeni Corporation (Japan)
Main Consultant (Over 100 million yen)	-
Feasibility Studies: F/S, etc.	F/S by Yunnan Engineering Consulting Institute (July 2003)
Related Projects	-

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Atsushi Tsukui (International Development Center of Japan Inc.)

<sup>1</sup> Six projects (including this project) were adopted at one time as broadcasting sector projects in China. The other five projects were those in Jinan city in Shandong province; Qinghai, Anhui, Jilin provinces; and Ningxia Hui autonomous region.

## 2.2 Duration of Evaluation Study

Duration of the Study: August 2014 – January 2016

Duration of the Field Study: December 14 – 22, 2014; March 9 – 11, 2015

## 3. Results of the Evaluation (Overall Rating: A<sup>2</sup>)

### 3.1 Relevance (Rating: ③<sup>3</sup>)

#### 3.1.1 Relevance to the Development Plan of China

The government of China has placed emphasis on the broadcasting sector as a measure for enhancing people's cultural lives, and has set out policies for enhancing population coverage rates, quality of broadcasting programs, and upgrading information infrastructure including the broadcasting sector. These policies have consistently been retained in the Tenth Five-year Plan of China (2001-2005) at the appraisal to the Twelfth Five-year Plan of China (2011-2015) at the ex-post evaluation. The Twelfth Five-year Plan of China has placed emphasis on the policy of "Village to Village," which aims for the provision of public services to all rural areas and has endeavored to enhance broadcasting services. From 2010 onward, the government has pushed ahead with a policy that fuses the existing mass media, including broadcasting, to the Internet. This plan is named "Fusion of the three nets".

The Twelfth Five-year Plan of Yunnan province (2011-2015) established the following policies for the broadcasting sector: (1) the promotion of "Fusion of the three nets" (telegraph, radio/TV, and Internet) and building up the next generation of stable, broad-band information integration systems; (2) to raise the population coverage rate of radio and TV to more than 97% and 98% respectively; additionally, to achieve 100% of these rates in small villages with less than 20 households in remote areas, and to expand the full-scale use of digital TV in urban areas; (3) to develop the cultural content industry through the use of the Internet; (4) to build the capacity for production, translation, and broadcasting of radio and TV programs and films for ethnic minorities and to develop publications for them; and (5) to promote the policies of "Village to Village" and "Household to Household" (dissemination of broadcast programs to households that have difficulties receiving broadcasts by providing satellite communication facilities).

Based on the policies above, the consistency between the development policies of national and provincial governments and the project has been maintained from appraisal to ex-post evaluation.

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<sup>2</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>3</sup> ③: High, ② Fair, ① Low



Da Yu Tang village, a model village for the "Household to Household" policy in an ethnic minority community in Yuanyang County



Broadcasting programs are provided to the ethnic minority households by distribution of satellite antennas as part of the "Household to Household" policy

### 3.1.2 Relevance to the Development Needs of China

At the time of appraisal, because there are 25 ethnic minorities living in Yunnan, the government of Yunnan province aimed at human resource development and learning opportunity creation through the advancement of education and cultural programs on community-based radio and TV. For the development of Yunnan province, it was essential to provide broader groups of people with learning opportunities (such as advanced life-long education/ distance education) by improving the quality of broadcasting programs through the renovation of broadcasting equipment and facilities.

As of the ex-post evaluation, the GDP per capita of Yunnan province was 25,083 yuan, well below the national average of 41,908 yuan (roughly 60% of it). In 2013, the after-tax income per capita in urban areas was 23,226 yuan, whereas the net income per farmer was 6,141 yuan (the government of China's report, "Yunnan Province People Economic and Social Development Bulletin 2013"). Although it was not possible to simply compare the two income indicators, the disparity of income between urban people and farmers is quite considerable. YTVS and YRS have pushed ahead with the plan of expanding equipment and facilities for broadcasting to reinforce provision of educational and cultural content for the correction of these disparities. They are moving ahead with the construction of the Center of Ethnic Language Radio Television Broadcasting of Yunnan and Yunnan Comprehensive Radio Television Broadcasting Center to provide valuable, varied information to citizens, including ethnic minority people, in the province. Furthermore YTVS and YRS must upgrade their facilities and software, and increase human resource development to make full use of "new media", an internet delivery technology, to comply with the central government's policy of "Fusion of the three nets".

Based on the facts above, Yunnan province had and has the need for the enhancement

of opportunities for citizens through broadcasting programs, human resource development for local communities, and building manpower capacity in the broadcasting sector at the both appraisal and ex-post evaluation stages.

### 3.1.3 Relevance to Japan's ODA policy

"Economic Cooperation Program for China" (October 2001) by the government of Japan at the time of project appraisal set out policies such as the promotion of market-oriented economic reform, environmental arrangement for the extension of economic relationships in the private sector, and the promotion of mutual understanding between people in both countries. The Medium-Term Strategy for Overseas Economic Cooperation Operations of JICA emphasized human resource development and the correction of income disparity by reducing the information gap. The project also aimed at the reduction of the information gap, human resource development, and mutual understanding between the two countries through the reinforcement of the broadcasting sector.

Based on the facts above, this project has been highly relevant to the country's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

## 3.2 Efficiency (Rating: ②)

### 3.2.1 Project Outputs

There are two aspects of project output in YTVS and YRS: (1) upgrading "hard" components (improvement of devices and infrastructure for broadcasting) and (2) strengthening "soft" components (delivery of training to staff). A comparison between the plan and the actual output is as follows.

(1) Upgrading "hard" components (improvement of devices and infrastructure for broadcasting)

Table 1: Planned and Actual Project Outputs ("Hard" Components)

Organization	Plan	Modification	Cause of modification
YTVS	<ul style="list-style-type: none"> <li>Studio equipment (digital video cameras/recorders, digital editing machines, monitors, etc.)</li> <li>Mobile unit car</li> </ul>	<ul style="list-style-type: none"> <li>Although products were modified in terms of their specifications, their functions were not changed.</li> </ul>	<ul style="list-style-type: none"> <li>Because the specifications and prices of products at time of the appraisal had changed when the executing agency procured them.</li> </ul>
YRS	<ul style="list-style-type: none"> <li>Studio equipment (digital audio recorders/ editing machines, audio work stations, transmission devices, etc.)</li> <li>Engineering/ maintenance car</li> </ul>		

Source: Documents provided by JICA and the executing agency and interviews with YTVS and YRS

It took two years from the appraisal to the first package procurement, during which technological innovation progressed. Consequently, the procurement of the equipment was modified, as in Table 1. The specifications of the equipment were changed, while remaining within the loan amount. No change in terms of the function or intended purpose of the equipment resulted.



Digital video camera (YTVS)



Digital audio recorder (YRS)

(2) "Soft" components (the training in Japan)

In the soft components, the technical training courses were conducted for engineers at YTVS and YRS; management training courses were also conducted for administrative personnel. The comparison between the planned and actual training is as follows (Table 2).

Table 2: Planned and Actual Project Outputs ("Soft" Components)

Organization	Plan	Modification	Cause of modification
YTVS	<ul style="list-style-type: none"> <li>• Training in Japan (Camera technique: 1 month × 5 persons, equipment maintenance technique: 1 month × 4 persons, media management: 1 month × 4 persons, newest technology: 1 month × 5 persons)</li> <li>• Coalition with Fujisawa city (friendship city)</li> <li>• Collaboration such as the coproduction of the TV program with Japanese broadcasting station (with Chukyo TV, Chiba TV, and TV Nagasaki)</li> <li>• Purchase of TV content such as Japanese programs and broadcast rights</li> </ul>	<ul style="list-style-type: none"> <li>• 5 batches of the training courses in Japan for the total of 38 experts in divisions such as broadcast management, editing, broadcasting techniques, industrial development for the duration from 10 to 14 days. Consequently the training for 475 man-days in total was conducted.</li> <li>• Regarding the coproduction of a TV program with a Japanese TV station, it was replaced by a coproduction with a Japanese production company.</li> <li>• Purchase of Japanese TV programs, broadcast rights, and Japanese music were not implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• The duration of the training course was shortened and the number of trainees was increased because it was deemed to be sufficient for technical staff to acquire the skills to operate the procured equipment by receiving instructions from manufactures at the time of equipment delivery, and that more engineers needed to share a common understanding of capability, extensibility, and utility of the high definition technology.</li> <li>• Collaboration with a Japanese broadcasting station and cooperation with Fujisawa city (friendship city) were not realized because the related parties in both countries were not positive enough to incur the cost needed for collaboration and coalition such as opportunity costs and necessary administrative costs.</li> <li>• Purchase of Japanese TV programs was not implemented because, in 2008, the time YTVS proceeded with the purchase, the relevant law was changed by the government, which made it impossible for the station to make the purchase.</li> </ul>
YRS	<ul style="list-style-type: none"> <li>• Training in Japan (editing techniques: 1 month × 1 person, equipment maintenance technique: 1 month × 3 persons, transmission techniques: 1 month × 1 person, media management: 1 month × 3 persons, production technique: 1 month × 1 person)</li> <li>• Purchase of Japanese music</li> </ul>	<ul style="list-style-type: none"> <li>• 5 batches of the training courses in Japan for the total of 38 experts in divisions such as broadcast management, editing, broadcasting techniques, industrial development for the duration from 10 to 14 days. Consequently the training for 475 man-days in total was conducted.</li> <li>• Regarding the coproduction of a TV program with a Japanese TV station, it was replaced by a coproduction with a Japanese production company.</li> <li>• Purchase of Japanese TV programs, broadcast rights, and Japanese music were not implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• The duration of the training course was shortened and the number of trainees was increased because it was deemed to be sufficient for technical staff to acquire the skills to operate the procured equipment by receiving instructions from manufactures at the time of equipment delivery, and that more engineers needed to share a common understanding of capability, extensibility, and utility of the high definition technology.</li> <li>• Collaboration with a Japanese broadcasting station and cooperation with Fujisawa city (friendship city) were not realized because the related parties in both countries were not positive enough to incur the cost needed for collaboration and coalition such as opportunity costs and necessary administrative costs.</li> <li>• Purchase of Japanese TV programs was not implemented because, in 2008, the time YTVS proceeded with the purchase, the relevant law was changed by the government, which made it impossible for the station to make the purchase.</li> </ul>

Source: Documents provided by JICA and the executing agency and interviews with the YTVS and YRS

With respect to training in Japan, although medium-term courses for the duration of 1 month for engineers at YTVS and YRS were planned (810 man-days in total), in implementation, this was changed to short-term courses for 38 persons for 10 to 14 days



for the main training content of site visits (475 man-days in total). The reasons for shortening the duration and increasing the number of trainees were as follows: the duration was deemed to be sufficient for technical staff to acquire the skills required to operate the procured equipment by receiving instructions from manufactures upon delivery of the equipment; and more engineers needed to have a common understanding of the capability, extensibility, and utility of high definition (hereinafter called "HD") technology. To respond to the learning needs of YTVS and YRS, such as the concept design of program productions and learning about the products made using HD technology, the training content of training in Japan was modified accordingly. These changes are deemed to be within the appropriate range of the purpose of the project.

The purchase of Japanese TV programs was not implemented. The reason for this is that although government policy did not (apparently) prohibit purchases by local broadcasting stations at the time of the appraisal, the government changed the relevant law to prohibit such purchases at the time YTVS proceeded with the plan in 2008.

In regard to the coproduction of a TV program with a Japanese broadcasting station, with the support of the consulting agency, YTVS and NHK Enterprises, a Japanese production company, coproduced a special program "Long Town Banquet"<sup>4</sup> in October 2008. According to YTVS, production staff from YTVS learned from Japanese technical staff the process for producing following: (1) production along with a deliberate plan which is made in advance; (2) composition of the program from the view point of the personas (e.g., citizens, farmers); (3) developing detailed scenes (to convey the culture and values of the personas).

### (3) Consulting service

Consulting services for equipment procurement were used as planned. As noted above, since the purchase of Japanese programs and music was not implemented because of a change in government policy, planned supporting service regarding the purchase was also not implemented.

### (4) Effect of STEP conditionality

The project applied the conditions of STEP consisting of the following requirements: the main contractor should have ties to Japan, the share of products of Japanese origin should be more than 30% of the total contract amount. These conditions were met.

As an effect of the STEP project to procure Japanese products, YTVS has spent their own funds, even after completion of the project, to purchase Japanese studio equipment

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<sup>4</sup> It is a traditional event among ethnic minority of Hani in Yunnan province, organizing a banquet at a very long table where people place their sheets on a line.

such as video cameras that were procured by this loan project, because of the needs of compatibility of functions and usability of the equipment. According to YTVS, Japanese products for the broadcasting sector are some of the best products. YTVS and YRS intend to expand their equipment and facilities using Japanese products.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

The total amount of actual project cost was 3,747 million yen, as planned (100%). The foreign currency cost of the project was 3,005 million yen, which is almost the same as the planned amount. The local currency cost of the project was 742 million yen, which is almost the same as the planned amount (99% of it).

Table 3: Project Cost, Planned and Actual Amounts (unit: million yen)

	Plan				Actual			
	FC*	LC**	Total		FC*	LC**	Total	
	(Target of loan)	(Not-targeted by loan)	Total	of which loan amount	(Target of loan)	(Not-targeted by loan)	Total	of which loan amount
Broadcasting equipment	2,669	712	3,381	2,669	2,927	742	3,669	2,927
Training in Japan (of which purchase of Japanese programs)	46 (22)	-	46 (22)	46 (22)	26	-	26	26
Price escalation***	101	1	102	101	-	-	-	-
Contingency	141	36	177	141	-	-	-	-
Consulting service	51	-	51	51	49	-	49	49
Commission					3		3	3
<b>Total</b>	<b>3,008</b>	<b>749</b>	<b>3,757</b>	<b>3,008</b>	<b>3,005</b>	<b>742</b>	<b>3,747</b>	<b>3,005</b>

Source: Documents provided by JICA and executing agency

Note: FC\*: Foreign currency, LC\*\*: Local currency, Price escalation\*\*\*: Contingency for the rise of project costs due to inflation

Exchange rate at the appraisal: 1 yuan= 14.3 JPY. Actual exchange rates: the following IMF annual rates are applied to the corresponding annual expenses to compute the total amount in the local currency; 1 yuan = 13.1 JPY (2004), 13.5 JPY (2005), 14.6 JPY (2006), 15.5 JPY (2007), 14.9 JPY (2008), 13.7 JPY (2009), 12.4 JPY (2011)

In relation to the distribution of procurement packages, there were three packages at project appraisal, whereas there were five packages in actuality (Table 4).

Regarding package 4, the contents of the package were included in the plan. These consisted of items removed from the original packages 1, 2, and 3 in rearranging the

items so as to make the procurement easier. The modification was approved by JICA in 2006.

The reason for adding package 5 was that after completion of the procurement in the original plan (modified packages 1 to 4) in December 2010, there remained an unused amount in the budget for price escalation and the purchase of Japanese programs, which was impossible to use because of the change in government policy. Consequently, the budget was allocated to the additional package of equipment to make better use of the procured equipment. This change was approved by both governments of China and Japan; therefore, it is deemed to be valid.

Table 4: The Amount of Respective Packages

Package	Plan (million yen)	Actual (million yen)
1. Equipment and facilities for YRS	655	606
2. Equipment and facilities for YTVS	1,128	334
3. Equipment and facilities for YTVS	886	727
4. Equipment and facilities for YTVS*		1,119
5. Equipment and facilities for YTVS*		144
Total	2,669	2,930

Source: Documents provided by JICA

\*Package 4 and 5 were added after project commencement

### 3.2.2.2 Project period<sup>5</sup>

Total project period was significantly longer than planned, the actual periods was 106 months which were equivalent to 183% of the planned period (Table 5).

Table 5: Project Period, Plan and Actual

	Plan	Actual
Whole project	From March 2004 (signing of the Loan Agreement) to December 2008 (58 months)	From March 2004 (signing of the Loan Agreement) to December 2012 (106 months) (183% of planned duration)
a) Procurement of equipment	From October 2004 to December 2008	From August 2004 to December 2012
b) Training	From October 2004 to December 2008	From September 2007 to May 2008
c) Consulting service	From April 2004 to December 2008	From March 2006 to December 2012

<sup>5</sup> The end of the project period is defined as the completion of all three components, that is, the procurement of equipment, the implementation of staff training, and the use of consulting service.

The delay was caused by the following four reasons:

- (1) The conclusion of the contract among the executing agency and the consulting agency was delayed. (The understandings of "the Guidelines for the Employment of Consultants under Japanese ODA Loans" between the executing agency and the consulting firm were different, although JICA China office held a seminar to explain the guidelines for executing agency. Further, the need of coordination over the corporate tax and the contract of Japanese TV programs purchase arose between both sides.)
- (2) It took some time for the executing agency and JICA to communicate on fixing the items in the packages since the executing agency dealt with STEP project for the first time.
- (3) The procurement of package 1 was performed twice because there was a fault in the bidding qualifications of the first winning bidder.
- (4) After completion of procurement of the planned items in December 2010, the executing agency procured the additional package to make effective use of the remaining loan amount.

### 3.2.3 Results of Calculations of Internal Rates of Return

The effectiveness of the project resulted in not only upgrading the broadcasting equipment and facilities but also various additional aspects such as the training in Japan, and dissemination of information for people's awareness of the environment, public health, and market rules. Therefore it is difficult to measure quantitatively (and comprehensively) the effect on the internal rate of return. The project did not compute a rate at either the project appraisal or ex-post evaluation stage.

Based on the facts above, although the project cost was within the plan, the project period significantly exceeded the plan. Therefore the efficiency of the project is fair.

## 3.3 Effectiveness<sup>6</sup> (Rating: ③)

### 3.3.1 Quantitative Effects (Operation and Effect Indicators)

This ex-post evaluation validates evidence by comparing the target values two years after project completion, which was set at the appraisal, and the actual values.

In respect to the operation and effect indicators of both the population coverage rate and the number of viewers/listeners, the actual values exceeded the planned values at the time of project completion. All quantitative indicators, except the number of educational programs on YTVS, attained their targets as of two years after project completion. The

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<sup>6</sup> Sub-rating for Effectiveness is to be put with consideration of Impact.

reason for failing to achieve that number is as follows. According to YTVS, while the government definition of an educational program at the appraisal could not be verified, it could, yet, be verified at the ex-post evaluation (for instance, programs about preparing for university entrance examinations, rebroadcasted programs, and adult education programs were not defined as educational programs). Therefore, the failure of achieving this indicator could have caused by the difference between the definitions at the two time points. Consequently the extent to which the project achieved the planned number of educational programs remains unclear.

Table 6: Operation and Effect Indicators

Indicator	Organization	Baseline	Target	Actual	Actual
		2003	2010	2012	2014
		Baseline Year	2 Years After completion	Completion Year	2 Years After Completion
Population coverage rate (Yunnan province) (%)	T	91.5	93.0	96.5	98.3
Number of viewers/listeners (Yunnan province, 10 thousand households)	T	1,000	1,046	1,260	1,382

Source : Documents provided by JICA and executing agency  
(T: YTVS)

Table 7: Other Quantitative Indicators

Indicator	Organization	Baseline	Target	Actual	Actual
		2003	2010	2012	2014
		Baseline Year	2 Years After completion	Completion Year	2 Years After Completion
Number of independently produced programs (per week)	T	24	48	51	59
	R	82	120	139	151
Rate of independently produced programs (%)	T	9.8	50.0	38.0	56.1
	ET	-	50.0	50.5	52.1
	R	39.0	70.0	56.0	74.8
Number of channels	T	6	7	9	10
	R	6	6	10	10
Broadcasting hours(per day)	T	107	120	132	141
	R	84	110	118	127
Broadcasting hours of education programs (per day)	T	5.3	37.0	32.5	39.4
	ET	-	32.0	30.7	35.8
	R	22.0	35.0	35.3	40.2
Number of education programs (per day)	T	26	55	28	35
	ET	-	48	56	49

	R	25	40	49	49
Number of programs related to disaster prevention (per week)	T	7	14	16	19
	R	7	14	15	20
Number of programs related to environment conservation (per day)	T	5	6	8	10
	R	2	4	5	8
Number of programs related to public health (per day)	T	3	5	6	9
	R	4	6	6	8
Number of programs related to the development of market economy (per day)	T	2	3	4	7
	R	1	2	3	6
Number of programs produced in a foreign country (per day)	T	6	8	8	9
	R	1	1	2	4
Number of programs produced in Japan (per day for TV, per year for radio)	T	1	2	2	2
	R	0	0	0	0
Number of ethnic-minority-focused programs (per day)	T	1	2	3	6
	R	5	5	7	11
Number of programs targeting women (per day)	T	2	4	6	9
	R	1	2	4	8
Number of programs targeting children (per day)	T	2	4	5	7
	R	1	2	3	6

Source: Documents provided by JICA and executing agency

(T: YTVS, R: YRS, ET: Yunnan Education Television Station that was planned to be established at the appraisal. This station was not founded (see also "3.5.1 Institutional Aspects of Operation and Maintenance") in practice; therefore, the values in the table refer to the numbers from the Child Channel and the Education Channel of YTVS. The number of the programs in YTVS excludes programs from these two channels.)

### 3.3.2 Qualitative Effects

The digital editing system procured for the project makes it possible to produce and edit in a non-linear manner (a type of editing work using computer) without using video tapes, resulting in streamlining of production time and costs. Concretely, at the time of program production, the staff can edit the program until just before the on-air time of the news because of the digital system. Previously, using the analog system, they had to finish the editing 3.5 hours before the on-air time (it took this length of time to process the program for broadcasting), thereby, news articles that were not finished being edited by 3.5 hours before broadcasting had to be carried forward to the next day. Currently, news events that happen right before the on-air time can still be broadcasted. Regarding the streamlining of the cost, the purchase of the cassette tapes is no longer required.

Additionally, efficient use of former tape storage space is now possible (interview with YTVS).

During training in Japan, YTVS staff learned the advantages of NHK's open-plan studio, in which the mobility of staff in program production is facilitated. Thereafter, they adopted that style for the procured studio (a studio of 400 m<sup>2</sup>). This style of studio has contributed to efficient program production. On another occasion during training in Japan, staff had the opportunity to witness a live broadcast program at an outdoor site. After returning to China, this experience was employed in setting up equipment for live broadcasts. For instance, they applied this experience to the cases of live broadcasting such as the torch relay for the Beijing Olympics, important events/festivals of ethnic minorities, reports of earthquake disasters, and so on. According to YTVS, the quality of their live broadcasts has improved.

Regarding radio programs, a method of program production including listeners' discussions (direct participation) has been adopted in YRS's news program "Golden Hot Line". This program records and broadcasts meetings in which the leaders of local government and listeners discuss local issues, which happened for the first time for a radio program in Yunnan province. According to YRS, the program has acquired a favorable reputation from many listeners.

YTVS's and YRS's history of winning awards also supports the observation of an improvement in the quality of their programs. YTVS's program "The Voice of Earth" earned the 22<sup>nd</sup> "Star Light Award" (one of the three major titles of State Administration of Press, Publication, Radio, Film and Television of the People's Republic of China<sup>7</sup> for image products). The program "Red and Blue" also won the prize of Best Short Documentary Film at Sheffield International Documentary Festival, which is one of the most important film festivals in the UK. Moreover the results of market research back up the quality improvement of their programs. According to CVSC-Sofres Media, one of the most famous media research institutions in China, the audience rate of YTVS in Kunming city (the capital of Yunnan province) has risen from 18.4% in 2002 to 22.3% in 2013. The listening rate of YRS in the city has also risen, from 61.7% in 2002 to 69.6% in 2013.

Based on these facts, (1) all of the quantitative indicators (except one) achieved their targets, (2) the content and methods of production were improved by the procured equipment and facilities, and (3) the achievements of YTVS and YRS were valued by foreign and domestic organizations and were confirmed by results from a market research firm. Therefore, the effectiveness of the project is high.

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<sup>7</sup> It is a national-level organization that supervises the sectors of the press, publication, radio, film, and television.



Open studio in Japanese style. Staff collaboration encourages efficient production.



The studio of "Golden Hot Line" in which a Japanese method (viewers and experts discuss hot topics) is employed

#### Column: Application of Japanese method of disaster reporting

In 2014, Yunnan province experienced two large earthquakes. A quake of magnitude 6.5 hit Ludian county in August, and another quake, with magnitude 6.6, hit Jingguw county in October, resulting in disasters in these areas. Specifically, the earthquake in Ludian killed over 600 people. YTVS made a series of reports about the disaster using the procured equipment and facilities of this project. They broadcasted the situation in the disaster area to the whole country and provided helpful information for victims in the area. For instance, information provisions on the aftershock of quakes after the each occurrence of the shock; the distribution of water, food, living necessities, and so on; assistance for reconstruction after the disaster (waging a campaign for the promotion of specialty goods in the disaster area). These news reports for disasters did not previously exist in China. YTVS had learned them from the news programs of the Great East Japan Earthquake (hereinafter called GEJE).

In 2011, YTVS was planning to dispatch crews of reporters to Japan to report in GEJE to the public in China. They could carry this out with the cooperation of TV Asahi through the Embassy of Japan in China's facilities. The crews learned about content and methods of reporting the disaster from Japanese broadcasting stations. After returning to China, their experience was shared in YTVS, and then, applied to the case of the earthquake reports in Ludian and Jingguw. In this case, Japanese knowledge was effectively applied to China using the equipment and facilities procured.

Since 2013, The government of China has reviewed disaster prevention including reports of the domestic disaster and conducted research on emergent reporting of disasters/disaster prevention of Japan. YTVS has formulated in 2014 "Regulation of the Emergent Report of Disaster and Disaster Prevention", which refers to related rules for Japanese broadcasting stations. This regulation consists of the system of emergent reporting in the event of a disaster at the station in addition to a clear assignment of



responsibilities in this case. YTVS has developed fast-track reactions for disaster reporting.



Report of Ludian Earthquake in 2014



The mobile unit of transmitting equipment procured by the project

### 3.4 Impacts

#### 3.4.1 Intended impacts

(1) Advancement of education, cultural enrichment and knowledge enhancement for the citizens

As in Table 7 above, the numbers and durations of broadcast programs related to education, culture, and socio-cultural information have risen since the appraisal.

The beneficiary survey<sup>8</sup> indicates that citizens in Yunnan province watch and listen to the programs of YTVS and YRS, and appreciate their local relevance, promptness, and usefulness.

With respect to the viewership and listenership, 60% and 40% of people in Yunnan watch YTVS and listen to YRS, respectively, on a routine basis. People's most favorite programs are news and health programs. More than 80% of YTVS's viewers recognize the improvement in the quality of programs in terms of the local relevance, diversity, and usefulness compared to the quality in 5-10 years ago. In the same manner, more than 70% of YRS listeners responded that YRS's programs have improved in terms of diversity and usefulness. In an increasing trend of Internet usage and a declining trend of TV and radio usage, the advantageous features of YTVS and YRS programs have been retained and supported by their audiences.

With respect to ethnic-minority people, they [except for Miao (Hmong) people] show a trend similar to that of Han people (major ethnic group) regarding watching TV and listening to the radio, and appreciate the content of TV and radio programs. Although

<sup>8</sup> The beneficiary survey was conducted in December 2014 at approximately 10 sites in Kunming prefecture, Xiaoshuijing village (ethnic minority area) and Yuxi prefecture using a questionnaire. Researchers heard the answers directly from beneficiaries and recorded them on paper. The numbers of valid responses were 50 in Kunming prefecture, 20 in Xiaoshuijing village, and 30 in Yuxi prefecture (50 males and 50 females). The contents of questions mainly covered the trends of watching TV and listening to the radio, the evaluation of YTVS's and YRS's, programs, information about and interest in foreign countries (US, Korea, and Japan), through TV and radio programs.

Miao people do not listen to the radio, they still watch TV in a similar manner to that of Han and other ethnic-minority people; they also appreciate YTVS's TV programs. Like Han people, ethnic-minority people are also deemed to receive benefits from the improvement of the quality of YTVS.

During the project period, the programs in ethnic minority languages were broadcasted to elderly ethnic minority people, especially female people, who do not understand Putonghua. Because the beneficiary survey shows that the elderly appreciate programs on legislation and health in particular, it is found that information from TV offers benefits to the elderly who do not understand Putonghua.

Based on the facts in the beneficiary survey, the project has had an impact on the advancement of education, cultural enrichment, and knowledge enhancement for the citizens of Yunnan.

#### (2) Strengthening of collaboration between Japanese and Chinese broadcasting stations

Collaboration between Japanese and Chinese broadcasting stations as a result of the project after project completion was not observed. However YTVS reported that they have been affiliated with TV Asahi for a long period to dispatched television crews to report on GEJE for China, and to exchange materials for programs (column "Application of Japanese method of disaster reports"), although this is not a direct impact of the project.

#### (3) Promotion of Mutual Understanding between Japan and China

Since the purchase of Japanese TV programs has not been implemented, the impact on mutual understanding between Japan and China as a result of the purchase is difficult to observe. Additionally, evidence that shows an improvement of the impression of Japan from the beneficiary survey has not been obtained.

There was no Japanese TV program purchased and broadcasted within the scope of the project; there has been a limited number of broadcasted programs related to Japan during and after the project; thereby, the project does not have a noticeable impact on mutual understanding between Japan and China. However, YTVS reported that staff dispatched to training in Japan increased their interests in (and understanding of) Japanese technical staff work behaviors.

#### 3.4.2 Other Impacts

There were no negative impacts on the natural environment or any resettlement of residents because of this project.

Based on the facts above, this project has largely achieved its objectives. Therefore effectiveness and impact of the project are high.

### 3.5 Sustainability (Rating:③)

#### 3.5.1 Institutional Aspects of Operation and Maintenance

Because of organizational changes in 2012, the Yunnan Radio, Film, TV Department was changed into the Administration of Press, Publication, Radio, Film and Television of Yunnan province (hereinafter called APPRFTY). Yunnan TV Department and Yunnan Radio Department were changed to YTVS and YRS, respectively. Yunnan Education TV Station, which was planned to be established at the time of the appraisal, was not established at the time of ex-post evaluation; instead, the Child Education Channel was established within YTVS in 2006. Because the channel is specialized for the production and broadcast of educational programs, the objective of the establishment of Yunnan Education TV Station has been achieved.

Responsibility for maintenance and management of the procured equipment and facilities was assumed by YTVS and YRS under the supervision of APPRFTY. YTVS and YRS have 1,673 staff in total (the portion of YTVS staff is 70% and that of YRS staff is 30%), including 442 technical staff who are in charge of the broadcast operation, control/transmission system management, facility management, and maintenance. According to YTVS and YRS, sufficient numbers of appropriate personnel have been assigned.

#### 3.5.2 Technical Aspects of Operation and Maintenance

As noted above, there are 442 technical staff members who directly operate the procured equipment and facilities in this project. This group consists of 4 staff members with the certification of "Advanced Engineer", 43 staff members with the certification of "Junior Advanced Engineer", and 102 staff members with the certification of "Engineer". According to APPRFTY, they have maintained their skills in a sufficient level to operate the equipment.

In the ex-post evaluation study, it is confirmed that there are training sessions provided by the manufacturers when new equipment is procured. Additionally, there are manuals available and ready to be referred to by technical staff.

Moreover, since the launch of the project, each division or department in YTVS has conducted ad-hoc training sessions or technical meetings (approximately once every two months) to solve the problems that arise in everyday operation of equipment and facilities. They continue these same activities at the same frequency at the ex-post evaluation.

Based on the facts above, no problems in terms of the technical aspects of operating and managing the procured equipment and facilities are found.

### 3.5.3 Financial Aspects of Operation and Maintenance

Considering the financial statuses and steadily increasing advertising sales volume since 2002 in YTVS and YRS, both organizations have maintained steady financials. For this reason, the two organizations are deemed to be able to afford to allocate sufficient budgets for operation and maintenance work (Table 10 and Table 11).

Table 10: Financial Status of YTVS

(unit: 10 thousand yuan)

Item	2002	2009	2010	2011	2012	2013
Total annual revenue	169	731	850	1,126	1,203	1,020
Sales: advertisement	104	583	588	745	899	845
Sales: Others	10	85	209	307	177	71
Subsidy	55	63	53	74	127	104
Other income	0	0	0	0	0	0
Total annual expenditure	108	661	809	1,068	1,127	1,014
Employment cost	17	62	123	138	150	153
Program production, purchase	36	171	229	407	413	421
Administration expense	42	338	331	406	425	250
(of which maintenance cost)	(1)	(3)	(4)	(5)	(8)	(3)
Investment for fixed asset	4	48	41	60	34	80
Money paid to government	6	35	41	15	56	28
Other costs	3	7	44	42	49	82

Source: Documents provided by the executing agency

Table 11: Financial Status of YRS

(unit: 10 thousand yuan)

Item	2002	2009	2010	2011	2012	2013
Total annual revenue	37	76	96	102	99	122
Sales: advertisement	26	42	57	61	69	93
Sales: Others	1	3	2	1	2	1
Subsidy	10	29	35	39	22	28
Other income	0	2	2	1	6	0
Total annual expenditure	36	57	71	97	91	111
Employment cost	17	24	29	34	42	52
Program production, purchase	2	6	6	9	12	9
Administration expense	3	13	16	15	16	12
(of which maintenance cost)	(1)	(3)	(4)	(5)	(8)	(3)
Investment for fixed asset	2	2	4	19	1	5
Money paid to government	1	2	3	4	4	6
Other costs	11	10	13	16	16	27

Source: Documents provided by the executing agency

#### 3.5.4 Current Status of Operation and Maintenance

In YTVS and YRS, the equipment and facilities, including those procured by the project, are properly operated and managed according to the personnel plan and the regulations for maintenance. Systems for better management of the equipment, such as bar-code management system, have been designed and installed.

Some devices such as mixers were over their usable lives because of a high frequency of usage, and alternative devices have been installed. Appropriate measures for providing substitutions have been taken by the two organizations.

For these reasons, the two organizations are not deemed to have problems in terms of operation and maintenance of equipment.

Based on the facts above, no major problems have been observed in the institutional, technical and financial aspects of the operation and maintenance system. Therefore sustainability of the project effects is high.



Stored digital cameras procured by the project



A bar-code reader system for management of usage of equipment

## 4. Conclusion, Lessons Learned and Recommendations

### 4.1 Conclusion

The objective of this project was to improve television and radio broadcast programs in Yunnan province, in terms of both quantity and quality, by replacing equipment at both Yunnan TV Station (hereinafter called YTVS) and Yunnan Radio Station (hereinafter called YRS) as well as implementing the training in Japan, thereby contributing to the advancement of education, cultural enrichment, and knowledge enhancement for the citizens of Yunnan province, and the promotion of mutual understanding between Japan and China. This project is closely related to China's development plans, development needs, and Japan's ODA policy; therefore, its relevance is high. Additionally, the project cost was within the plan; however, the project period significantly exceeded the plan. Therefore its efficiency is fair. Both the population coverage rate and the viewership set as the project

target criteria steadily increased, which evidences the project effectiveness. The efficiency of the program production is improved through the use of the procured digital equipment. The effectiveness of the training in Japan, such as the introduction of the Japanese open-plan studio, and the discussion style among citizens or intellectuals on radio programs has been observed; the improvement of the quality of broadcasting services (both in hardware and software) has contributed to the advancement of education, cultural enrichment, and knowledge enhancement for the citizens, especially for ethnic minority people of Yunnan; therefore, the effectiveness and impact are high. Regarding the sustainability of the project, the status of the organizational, technical, and financial aspects have been stable and sufficient. In this way, the sustainability of the effectiveness of the project is high.

Based on the above facts, this project is evaluated to be highly satisfactory.

## 4.2 Recommendations

### 4.2.1 Recommendations to the Executing Agency

None.

### 4.2.2 Recommendation to JICA

None.

## 4.3 Lessons learned

### (1) Application of Japanese knowledge of emergent disaster reporting and disaster prevention to projects in the disaster prevention sector

As described in the column "Application of Japanese method of disaster reports", YTVS provided the victims of the disaster with necessary information for disaster prevention and reconstruction after the earthquakes in Ludian and Jingguw in 2014. The methods and contents of that information were learned from a Japanese broadcasting station after GEJE. The knowledge accumulated by the Japanese broadcasting station in that sector can be shared with large numbers of countries in which people suffer from natural disasters. For the formulation of new projects based on yen loans or technical cooperation in the disaster prevention sector, it is worth considering incorporating the methods and content of disaster prevention report, which are strong points of Japanese knowledge, into the component of these projects.

### (2) The need for risk and implementation process analysis of the soft components with high-difficulty

The project did not implement the purchase of Japanese programs. The cause was a change in the related law in China. However if this direct cause had not occurred, the

implementation of the purchase should have yet been very difficult, according to the facts collected in the ex-post evaluation. For instance, there yet remained a number of issues such as research and selection of the program that could gain the acceptance of the Chinese audience, the process to clear the copyrights domestically and in Japan, the coordination with the central government and provincial broadcasting agencies on the maximum number of foreign TV programs that were allowed to be broadcasted in the whole country, the program scheduling in YTVS upon clearance of all of the conditions above, and so forth, to be solved before purchase; in essence, the component of purchasing Japanese programs was the one with high-difficulty to be achieved. At the time of the ex-post evaluation purchase has been allowed due to the change of the operation of related legal systems, YTVS yet does not purchase and broadcast any Japanese program because selecting Japanese programs that can lead to the audience rate increase is so difficult (interview with YTVS).

In these difficult cases, one needs careful investigation at the appraisal with respect to the types and levels of risk that may restrict the implementation of the project components. While the appraisal documents had confirmed the past actual achievements of purchase of foreign TV programs as well as Japanese ones, it did not recognize the possibility of restrictions on the purchase or import of foreign TV programs as well as above difficulties to be solved, as an explicit risk. It was after the beginning of the project that a survey on relevant policies and rules was conducted.

Because the objective of the promotion of mutual understanding between the two countries based on Japanese programs sounded relevant to reinforce the meaning and effect of the bilateral cooperation project, the information analysis as well as the confirmation of a possible implementation process like the above study, and the subsequent information sharing between the two countries on a feasible objective for the purchase would have been essential at the appraisal.

Comparison of the Original and Actual Scope of the Project

Item	Plan	Actual
<p>1. Project Outputs</p> <p>Hard components</p>	<p>&lt;YTVS&gt;</p> <ul style="list-style-type: none"> <li>▪ Studio equipment (digital video cameras/recorders, digital editing machines, monitors, etc.)</li> <li>▪ Mobile unit car (3 packages in total)</li> </ul> <p>&lt;YRS&gt;</p> <ul style="list-style-type: none"> <li>▪ Studio equipment (digital audio recorders/editing machines, audio work stations, transmitting devices, etc.)</li> <li>▪ Engineering/maintenance car (4 packages in total)</li> </ul>	<p>&lt;YTVS&gt;</p> <ul style="list-style-type: none"> <li>▪ As planned</li> </ul> <p>&lt;YRS&gt;</p> <ul style="list-style-type: none"> <li>▪ As planned</li> </ul>
<p>Soft components</p>	<p>&lt;YTVS&gt;</p> <ul style="list-style-type: none"> <li>▪ Training in Japan (Camera technique: 1 month × 5 persons, equipment maintenance technique: 1 month×4 persons, media management: 1 month × 4 persons, newest technology: 1 month × 5 persons)</li> <li>▪ Coalition with Fujisawa city (friendship city)</li> <li>▪ Collaboration such as the coproduction of a TV program with Japanese broadcasting station (with Chukyo TV, Chiba TV, and TV Nagasaki)</li> <li>▪ Purchase of TV content such as Japanese programs and broadcast rights</li> </ul> <p>&lt;YRS&gt;</p> <ul style="list-style-type: none"> <li>▪ Training in Japan (editing technique: 1 month × 1 person, equipment maintenance technique: 1 month × 3 persons, transmitting technique: 1 month × 1 person, media management: 1 month × 3 persons, production technique: 1 month × 1 person)</li> <li>▪ Purchase of Japanese music</li> </ul>	<p>&lt;YTVS and YRS&gt;</p> <ul style="list-style-type: none"> <li>▪ 5 batches of the training courses in Japan for a total of 38 experts in divisions such as broadcast management, editing, and broadcasting techniques, industrial development for the duration of 10 to 14 days. Consequently, training for 475 man-days in total was conducted.</li> <li>▪ Regarding the coproduction of a TV program with a Japanese TV station, it was replaced by a coproduction with a Japanese production company. Purchase of Japanese TV programs, broadcast rights, and Japanese music were not implemented.</li> </ul>
<p>Consulting service</p>	<p>(a) Assistance in procurement</p> <p>(1) Technical support for preparation of detailed design (D/D) and pre-qualification (P/Q) documents</p> <p>(2) Technical support for</p>	<p>(a) Assistance in procurement</p> <ul style="list-style-type: none"> <li>▪ As planned</li> </ul>



	evaluation of P/Q results (3) Technical support for preparation of tender documents (4) Technical support for evaluation of tender results (b) Assistance in training (1) Training in Japan (2) Co-production of programs with Japanese broadcasting stations (3) Purchase of Japanese programs and broadcasting rights	(b) Assistance in training (1) Training in Japan (2) Co-production of programs with Japanese broadcasting stations (3) Purchase of Japanese programs and broadcasting rights
2. Project period	March 2004 – December 2008 (58 months)	March 2004 – December 2012 (106 months)
3. Project cost		
Amount paid in Foreign Currency	3,008 million JPY	3,005 million JPY
Amount paid in Local Currency	749 million JPY (52 million yuan)	742 million JPY (52 million yuan)
Total	3,757 million JPY	3,747 million JPY
Japanese ODA Loan portion	3,008 million JPY	3,005 million JPY
Exchange rate	1 yuan = 14.3 JPY (As of September 2003)	1 yuan = 13.1 JPY (2004), 13.5 JPY (2005), 14.6 JPY (2006), 15.5 JPY (2007), 14.9 JPY (2008), 13.7 JPY (2009), 12.4 JPY(2011)