

People’s Republic of China

Ex-Post Evaluation of Japanese ODA Loan Project

“Broadcasting Infrastructure Improvement Project (Qinghai Province)”

External Evaluator: Yusuke Hasegawa, International Development Center of Japan Inc.

## 0. Summary

The goal of this project was to improve the quantity and quality of TV and radio programs in Qinghai Province by updating the broadcasting infrastructure and providing training to the staffs of the broadcasting stations. This would contribute to the advancement of education, knowledge enhancement, and cultural enrichment of the citizens in Qinghai, and also to the promotion of mutual understanding between China and Japan. The project was highly relevant to the development plans and development needs of China, especially in Qinghai Province, from the appraisal to the ex-post evaluation, and also to Japan’s assistance policy for China at appraisal; therefore, the relevance of this project is high. While the project outputs were appropriately produced with some modifications to the original plan, the project cost exceeded that of the plan, and the project period was significantly longer than planned; therefore, its efficiency is low. The project significantly contributed to the improvement of the broadcast programs in quantity and quality, and has had a certain observable impact; therefore, its effectiveness and impact are high. No major problems have been observed in the institutional, technical, or financial aspects of the operation and maintenance system; therefore, sustainability of the project effects is high. In light of the above, this project is evaluated to be satisfactory.

## 1. Project Description



Project Location



Qinghai Radio and TV Station (QHBTU)<sup>1</sup>

### 1.1 Background

Broadcasting stations in China operate at the central, provincial, prefectural, and county levels and are supervised by the corresponding governments. In 2001, 94% of the population was covered by

<sup>1</sup> In September 2011, the Qinghai TV Station and the Qinghai Radio Station were merged into QHBTU. (Refer to “3.5 Sustainability.”)

television broadcasting; and as an influential means of distributing information, broadcasting was already integrated into the everyday life of Chinese citizens. With a view to enhancing the development of its society and economy, the Government of China had been working on the improvement of information access and cultural enrichment, setting a target of more than 97% of the population in administrative villages to be covered by TV broadcasting by 2010.

The Province of Qinghai is located mostly on the Qinghai-Tibet plateau and had a population of 5.3 million in 2002, 45% of whom were from 33 ethnic minority groups such as Tibetans (Source: JICA). The province is endowed with mineral resources such as natural gas, oil, and non-ferrous metal; and its rich natural environment provides tourism resources and a variety of animals and plants such as medical herbs. Nevertheless, the economy of the province and people's living and educational standards had remained underdeveloped because of insufficient funding from the central government before the "Western Development" program was launched. Although the People's Government of Qinghai Province stressed the importance of broadcasting as a key to spreading knowledge of culture, education, disaster prediction and prevention, and science and technology, as well as to promote cultural exchanges, TV and radio stations in the province had been forced to create their programs by utilizing obsolete equipment because of a lack of funds.

Against this background, this project was implemented to improve the quantity and quality of broadcasting in Qinghai Province to contribute to the advancement of education, knowledge enhancement, and cultural enrichment of the citizens in Qinghai and also for the promotion of mutual understanding between China and Japan. In addition, the project planned to introduce Japanese broadcasting technology and equipment into China under the Special Terms for Economic Partnership (STEP)<sup>2</sup>.

## 1.2 Project Outline

The objective of this project was to improve the quantity and quality of the TV and radio programs in Qinghai Province by updating the broadcasting infrastructure and providing training to the staffs of the broadcasting stations, thereby contributing to the advancement of education, knowledge enhancement, and cultural enrichment of the citizens in Qinghai and also promote mutual understanding between China and Japan.

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<sup>2</sup> JICA approved a total of six broadcasting projects under the STEP condition in China at the same time, including the Qinghai project. The target areas of the other five projects were Jinan City, Yunnan Province, Anhui Province, Jilin Province, and Ningxia Hui Autonomous Region.

<ODA Loan Project>

Loan Approved Amount/ Disbursed Amount	2,354 million yen / 2,353 million yen
Exchange of Notes Date/ Loan Agreement Signing Date	March 2004 / March 2004
Terms and Conditions	Interest Rate 0.75% Repayment Period 40 years (Grace Period) (12 years) Main Contracts: Tied (Special Conditions for Terms for Economic Procurement: Partnership (STEP)) Sub Contracts: General Untied
Borrower / Executing Agency(ies)	Government of the People's Republic of China/ People's Government of Qinghai Province
Final Disbursement Date	August 2012
Main Contractor (Over 1 billion yen)	-
Main Consultant (Over 100 million yen)	-
Feasibility Studies, etc.	"Feasibility Study Report of Applying for Japanese Government Loan for Purchasing Qinghai Radio and Television Center's Equipment" by Radio, Film and Television Design and Research Institute (July 2003)
Related Projects	None

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Yusuke Hasegawa, International Development Center of Japan Inc.

### 2.2 Duration of Evaluation Study

Duration of the Study: August, 2014 – January, 2016

Duration of the Field Study: November 9–18, 2014; January 25–28, 2015

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

### 3.1 Relevance (Rating: ③<sup>4</sup>)

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

The Government of China has placed an emphasis on television and radio broadcasting as a means of ensuring people's cultured living in its five-year plans from the Tenth Plan (2001–2005) through

<sup>3</sup> A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

<sup>4</sup> ③: High, ② Fair, ① Low

the Twelfth Plan (2011–2015). These plans aimed for informatization through developing an information infrastructure by constructing a nationwide digital TV broadcasting network, extending the coverage of TV and radio broadcasting, and developing digital broadcasts. The latest five-year plan of the State Administration of Press, Publication, Radio, Film and Television of the People's Republic of China (SAPPRFT), namely the Twelfth Plan, sets a target of having 99% or above of the population covered by TV and radio broadcasting by 2015. The Twelfth Five-Year Plan of Qinghai Province also plans to accelerate the construction of the next generation of information infrastructure such as integrated networks of telecommunication, broadcasting, and computers, and to extend TV and radio coverage in rural areas through the “Village to Village Project” in order to promote the delivery of public cultural services.

Thus, this project was in line with the development plans of China at the national and provincial levels from the time of appraisal through ex-post evaluation.

### 3.1.2 Relevance to the Development Needs of China

In 2002, Qinghai's income per capita was approximately 20% below the national average. The 2012 figure was 33,181 RMB, which still fell below the national average (38,459 RMB) by approximately 15%. In addition, there was a significant economic gap between urban and rural residents in the province that was clearly indicated by the fact that the disposable income of urban residents was 3.3 times higher than the net income of rural residents in 2012 (Source: *Qinghai Statistical Yearbook*). The provincial government recognizes the importance of broadcasting as a means of social services to bridge the gap, and this is reflected in the government's development plans. In particular, the provincial government as well as the broadcasting stations see a constant need to provide more extensive information on disaster and disaster prevention and to broadcast more programs in the Tibetan language, since the province received much attention in China and from abroad after the 2010 Yushu earthquake. The earthquake originated in the Yushu Tibetan Autonomous Prefecture, south of the province, and was widely reported.

Until around 2009 in Qinghai, broadcasting stations at the province and prefecture levels were faced with a shortage of funds, which constituted a serious obstacle to digitalizing broadcasting equipment. The central and provincial governments fully started to invest in the broadcasting sector from 2010 on, for instance, through the “Village to Village Project.” Hence, the project had exactly met a financial need of the executing agency at the time of appraisal and implementation.

From a technical viewpoint, the necessity for adopting Japan's technology in the project is confirmed because the executing agency feels that Japanese broadcasting products, especially recording and editing equipment, have had technical advantages from the time of appraisal to ex-post evaluation, and that the products are suited to making high-quality programs in line with the digitalization policy of the government. With the ongoing rapid technological progress of broadcasting equipment and systems, the Qinghai Radio and Television Station (QHBTv) is currently facing new challenges such as replacement of equipment and facilities in response to

high-definition television (HDTV) technology.

Thus, this project was in line with the needs of China for enhancing the broadcasting sector and introducing Japanese technology from the time of appraisal through ex-post evaluation, and for the financial needs of the executing agency. Because of rapid progress in technology, the executing agency currently has another need for new equipment and facilities.

### 3.1.3 Relevance to Japan's ODA Policy

Japan's Economic Cooperation Program for China (October 2001) aimed to develop an environment to promote the market economy, to improve livelihoods in order to promote social development in the inland areas, and to enhance economic activities in the private sector.

The Medium-Term Strategy for Overseas Economic Cooperation Operations (2002–2005) of JICA (JBIC at that time), which was the policy of Japanese ODA loans at the time this project was appraised, emphasized the promotion of information technology to reduce the information gap in developing countries. In addition, the Country Assistance Strategy for China (2003) of JICA (JBIC at that time) stressed human resource development, particularly for regional revitalization and interactions, strengthening of market rules by utilizing Japan's experience through interactions with Japan's broadcasting stations (for example, through training and co-production of programs), and environmental conservation.

Thus, the orientation of these policies was consistent with a project that aimed to improve the livelihood and promote social and economic development by enhancing broadcasting in the inland areas of China.

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: ①)

### 3.2.1 Project Outputs

The project outputs can be divided into three categories: a "hard" component that is mainly related to equipment and facilities, a "soft" component that includes training and other activities, and consulting services. The planned and actual project outputs are explained below.

#### (1) "Hard" Component (procurement of broadcasting equipment and facilities)

As a whole, broadcasting equipment and facilities were provided largely as planned. Although changes were made to some of the planned equipment and facilities, they are recognized as necessary and relevant in the light of the project objective. Main modifications were as follows:

- Some of the camera equipment for TV studios and the computer broadcasting system for radio were upgraded to models with higher specifications, and a portion of the planned equipment for small-scale studios was cancelled. This was done in response to the needs of

QHBTB at that time, when the planned procurement packaging was reorganized after the start of the project.

- The civil work portion of the procurement package for audio and studio decoration that was planned for purchase by the JICA fund was cancelled and transferred to the Chinese fund. This resulted from the Chinese government's policy on foreign-invested construction enterprises that was issued after the project started, which made it impossible for Japanese construction firms to serve as the prime contractor as required by the STEP condition of the project<sup>5</sup>. The cancelled amount was then redirected to cover the cost for an expanded digital TV monitoring system for the Qinghai Radio Film and Television Bureau<sup>6</sup>, thus responding to the growing needs for digitalization.
- This project planned to provide broadcasting equipment and facilities not only to QHBTB (which was described as the target broadcasting station in the project summary document prepared by JICA) but also to the Qinghai Radio Film and Television Bureau and local broadcasting stations at the prefecture and county levels in the province. In fact, broadcasting equipment such as cameras was delivered widely to seven autonomous prefectures and prefecture-level cities and nine counties and county-level cities according to the plan<sup>7</sup>. After that, using the remaining balance of the approved loan amount, one additional procurement package was planned for the broadcasting station of the Hainan Tibetan Autonomous Prefecture, and broadcasting systems including HDTV equipment were delivered. The additional package focused on this particular broadcasting station in an attempt to create the most effect with limited resources, against the background that a new broadcast center for the station was being constructed with China's own fund at that time and that the station had a compelling need to broadcast more programs in the Tibetan language.

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<sup>5</sup> The problem arose because of a notice issued by the Chinese Ministry of Construction (at that time) in September 2004, stipulating that it had ceased to accept applications from foreign-invested construction firms for initial registration or extension of registration as eligible entities. On the other hand, according to documents provided by JICA, the legal opinions issued by the Chinese Ministry of Foreign Affairs that were a precondition for the commencement of the loan agreement stated that there was no conflict with domestic laws. After the the Ministry of Construction issued its notice, the Chinese Ministry of Finance denied the application of the STEP condition to the civil works of this project. Based on the above information, it is considered that it was difficult to foresee the problem at the time of appraisal.

<sup>6</sup> The provincial administrative institution in charge of managing and supervising the broadcast and film industry.

<sup>7</sup> Broadcasting stations at Haixi Mongol and Tibetan Autonomous Prefecture, Haibei Tibetan Autonomous Prefecture, Hainan Tibetan Autonomous Prefecture, Huangnan Tibetan Autonomous Prefecture, Yushu Tibetan Autonomous Prefecture, Golog Tibetan Autonomous Prefecture, Xining City, Golmud City, Qilian County, Menyuan Hui Autonomous County, Ping'an County, Ledu County, Xunhua Salar Autonomous County, Tongde County, Zêkog County, and Guinan County. China's local administration is divided mainly into the following levels: 1) provincial level (province, autonomous region, municipality, etc.), 2) prefectural level (prefecture, autonomous prefecture, prefecture-level city, etc.), 3) county level (county, autonomous county, county-level city, etc.), and 4) township and village level (township, town, village, etc.).

Table 1 Project Outputs (“Hard” Component)

	Plan	Change	Reason
QHBT (Television)	<ul style="list-style-type: none"> <li>Development of broadcast center (renovation of studios, air conditioners, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Civil work portion was undertaken with the Chinese fund.</li> </ul>	<ul style="list-style-type: none"> <li>Chinese government policy made it impossible for Japanese construction firms to serve as the prime contractor as required by STEP.</li> </ul>
	<ul style="list-style-type: none"> <li>Studio equipment (digital cameras/recorders/editors, HDTV cameras/recorders, lighting, etc.)</li> <li>Broadcasting van</li> <li>Broadcast center building construction (procured by the Chinese fund)</li> </ul>	<ul style="list-style-type: none"> <li>Part of the studio equipment, mobile satellite transmitter, and microwave transmitter were cancelled.</li> <li>HDTV broadcasting van was added.</li> <li>Studio cameras were upgraded/additionally procured.</li> </ul>	<ul style="list-style-type: none"> <li>Revised prediction of the use of small-scale studios</li> <li>Mobile satellite transmitter and microwave transmitter were already purchased with the Chinese fund.</li> <li>Higher-grade equipment and system were introduced in response to technology advancement. (HDTV broadcasting system)</li> </ul>
QHBT (Radio)	<ul style="list-style-type: none"> <li>Studio equipment (recording system, duplicating equipment, computer broadcasting system, etc.)</li> <li>Broadcasting van</li> </ul>	<ul style="list-style-type: none"> <li>Computer broadcasting system was upgraded.</li> <li>Some studios were changed to smaller-scale ones.</li> </ul>	<ul style="list-style-type: none"> <li>Higher-grade equipment and system were introduced in response to technology advancement. (Computer broadcasting system)</li> <li>Revised prediction of the size and use of studios (Recording system)</li> </ul>
Qinghai Radio Film and Television Bureau/ Local Stations	<ul style="list-style-type: none"> <li>Broadcast monitoring system</li> <li>Broadcasting equipment for local stations</li> </ul>	<ul style="list-style-type: none"> <li>Broadcast monitoring system was upgraded.</li> <li>HDTV studio broadcasting system including cameras and recorders were additionally procured for the station of Hainan Tibetan Autonomous Prefecture.</li> </ul>	<ul style="list-style-type: none"> <li>Higher-grade equipment and system were introduced in response to advances in technology (Improved monitoring function dealing with digital signals)</li> <li>A procurement package was added utilizing the balance of approved loan amount.</li> </ul>

Source: Documents provided by JICA and Executing Agency; interview with Executing Agency

(2) “Soft” Component (training for the staff of the broadcasting station, and other activities)

For its “soft” component, the project plan included training for the staff of the Chinese broadcasting station, co-production of programs and other collaborations between the Chinese and Japanese broadcasting stations, purchasing of programs produced in Japan, and so on. In reality, training and program co-production were implemented with some modifications to the plan, and

the changes are recognized as justifiable. On the other hand, collaboration between the Chinese and Japanese broadcasting stations and purchasing of Japanese-made programs were not realized. The details are explained below.

- The project originally planned to train the technical staff from QHBTB for one month (12 person-months in total). The training was actually provided to the staff of QHBTB as well as the Qinghai Radio Film and Television Bureau, and the training period was shortened to 7–10 days for each course (six person-months in total). The contents of the training were also changed: the revised program focused on discussions and negotiations with Japanese broadcasting stations and other organizations regarding the co-production and purchase of TV programs and other collaborations, in addition to site visits to manufacturers and broadcasting stations (Table 2). The reason for the changes was that the executing agencies preferred their technical staff to be away from work for a shorter period because the project implementation was being delayed, and the agencies gave priority to negotiations with Japanese broadcasting stations to materialize planned items such as collaboration and program purchases. The training program was judged to be appropriately changed according to the progress of the project.
- After the training program was completed, the executing agencies continued to discuss the possibility of co-productions with Japanese broadcasting stations. However, this was not realized because both sides were unable to reach agreement on the subject of the program, and the negotiations took too much time. The executing agencies then decided to cooperate with a Japanese production company to create a TV program. A program on the theme of cooperation between Chinese and Japanese villages working on the “One Village One Product” movement was produced and broadcast by QHBTB. The QHBTB staff participated in shooting on location in Japan and China.
- The principal reason for not succeeding in program purchasing was that tighter restrictions on importing and broadcasting foreign TV programs were placed by SAPPRFT, which supervises the Qinghai Radio Film and Television Bureau and QHBTB, at that time than at the time of appraisal. It was difficult for potential importers to predict what types of programs would be approved before applying to the authorities. At the time of ex-post evaluation, a very limited number of foreign programs, whether Japanese or not, were being broadcast by QHBTB. The other reasons provided by QHBTB were the high price of the programs and lack of capacity to re-edit the program for broadcast in China, such as translating into Chinese.



Table 2 Project Outputs (“Soft” Component)

	Plan	Change	Reason
QHBT (Television)	<ul style="list-style-type: none"> <li>▪ Training (camera technique: 1 month × 3 staff; editing: 1 month × 3 staff; transmission: 1 month × 3 staff)</li> <li>▪ Collaboration with NHK and Hokkaido Broadcasting Co. Ltd. (HBC)</li> <li>▪ Purchase of programs/broadcasting rights of programs produced in Japan</li> <li>▪ Co-production of programs with Japanese broadcasting stations</li> <li>▪ Obtaining of programs held by NIME-WORLD</li> </ul>	<ul style="list-style-type: none"> <li>▪ Number of person-months was shortened (visits to broadcasting stations and manufacturers etc.: 10 days × 9 staff; 7 days × 6 staff; 8 days × 6 staff)</li> <li>▪ Co-produced TV program titled “Village Life” (45 min) with a Japanese production company</li> <li>▪ Collaboration with Japanese broadcasting stations, purchase of programs/broadcasting rights of programs produced in Japan, and obtaining of programs were not implemented.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Priority was given to discussions/negotiations on collaboration and program purchase. QHBT requested their technical staff be away from work for a shorter period.</li> <li>▪ Co-production with HBC was not implemented because of different interests for the theme and too much time consumed for negotiations.</li> <li>▪ NHK provided a list of the programs available for sale, but the parties did not reach an agreement on purchasing Japanese-made programs.</li> <li>▪ The main reasons for not implementing program purchase were restrictions on importing/broadcasting foreign programs and that the purchase was subject to approval by the authorities. The other reasons provided by QHBT were the high price of the programs and lack of capacity to re-edit the program for broadcast in China.</li> </ul>
QHBT (Radio)	<ul style="list-style-type: none"> <li>▪ Training (recording: 1 month × 1 staff; editing: 1 month × 2 staff)</li> <li>▪ Purchase of music produced in Japan</li> </ul>		

Source: Documents provided by JICA and Executing Agency; interview with Executing Agency

### (3) Consulting Services

Part of the consultant’s work was changed in accordance with a change in the procurement method for equipment and facilities that originally required pre-qualification (P/Q) of bidders. The P/Q step was removed during the implementation, in view of a significant delay in the procurement process. At that point, it had been two and a half years since the loan agreement was signed, mainly because procurement packaging was revised during the initial stage of the project. According to the document provided by JICA, the estimated amount of each revised package was below a specified allowable level, and post-qualification reviews were conducted instead of P/Q to ensure the quality of contractors. Thus, the change in procurement method was considered to be relevant for the purpose of speeding up the procedures.

Table 3 Project Outputs (Consulting Services)

Plan	Change	Reason
(Support in procurement) <ul style="list-style-type: none"> <li>▪ Preparation of detailed design (D/D) and pre-qualification (P/Q) documents</li> <li>▪ Evaluation of P/Q results</li> <li>▪ Preparation of tender documents</li> <li>▪ Evaluation of tender results</li> </ul> (Support in training and others) <ul style="list-style-type: none"> <li>▪ Training in Japan</li> <li>▪ Co-production of programs with Japanese broadcasting stations</li> <li>▪ Purchase of Japanese programs and broadcasting rights</li> </ul>	<ul style="list-style-type: none"> <li>▪ Preparation of P/Q documents and evaluation of P/Q results were removed. Instead, support for post-qualification (document preparation and evaluation) was conducted.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Procurement method of equipment and facilities was changed from International Competitive Bidding (ICB) with P/Q to ICB with post-qualification.</li> </ul>

Source: Documents provided by JICA; interview with Executing Agency

#### (4) STEP's Effects on Outputs

The Customer Satisfaction Survey for the STEP Loan, which was conducted with the executing agencies, reveals that the executing agencies are relatively satisfied with the content and technical level of the procured equipment and facilities. During interviews with the executing agencies, they recognized that the equipment and facilities have contributed to the improvement of their entire broadcasting infrastructure. On the other hand, the executing agencies observed that the procurement process of the STEP loan takes a long time. They also expressed their view that procurement costs would have been lower if Chinese firms had been allowed to work as the prime contractor, even when purchasing the same Japanese-made products.

As stated above, the original plan of the project included civil work undertaken by the JICA fund. However, the civil work part was transferred to the Chinese fund because of the Chinese government's policy on foreign-invested construction enterprises that was issued after the project started, which made it impossible for Japanese construction firms to serve as the prime contractor as required by the STEP condition of the project. The cancelled amount was then shifted to an expansion of equipment and facilities. Since the civil work part had constituted only a portion of a single procurement package, the effect of the change on the outputs was judged to be minimal over the entire project.

### 3.2.2 Project Inputs

#### 3.2.2.1 Project Cost

The estimated project cost at appraisal was 3,971 million yen in total, of which the Japanese ODA loan was to be used for the foreign currency portion amounting to 2,354 million yen, and the remaining 1,617 million yen was to be funded by the Chinese side for the local currency portion.

Although the local currency portion included the costs for constructing the new broadcast center and for purchasing some broadcasting equipment, the evaluator was not able to obtain the precise data on the actual cost of broadcasting equipment spent under the local currency portion. Hence, the exact amount of the actual total cost was not revealed<sup>8</sup>. Estimating from the available information such as the construction cost obtained from the executing agencies, the actual cost of the project amounted at least to 4,100 million yen (103% of the plan) and exceeded the planned amount. The actual amount disbursed from the Japanese ODA loan was 2,353 million yen, corresponding to 100% of the planned loan.

Table 4 Project Cost (Unit: million yen)

	Plan				Actual			
	FC(*1)	LC(*1)	Total		FC	LC	Total	
	JICA fund	Non-JICA fund	Total	JICA fund	JICA fund	Non-JICA fund	Total	JICA fund
Broadcasting equipment	2,121	342	2,463	2,121	2,298	18(*3)	2,316	2,298
Training	13	0	13	13	8	0	8	8
Price escalation (*2)	68	0	68	68	-	-	-	-
Contingency	110	17	127	110	-	-	-	-
Consulting services	42	0	42	42	47	0	47	47
Other (construction of broadcast center)	0	1,258	1,258	0	0	1,729	1,729	0
Total	2,354	1,617	3,971	2,354	2,353	1,747	4,100	2,353

Source: Documents provided by JICA and Executing Agency; interview with Executing Agency  
Exchange rate: 1 RMB = 14.3 yen at appraisal;

1 RMB = 13.7 yen at ex-post evaluation (average during the loan period), applied to “broadcasting equipment”;

1 RMB = 13.1 yen (the 2004 average), applied to “Other (construction of broadcast center).” Broadcast center was completed in 2004.

Note: (\*1) FC: Foreign currency; LC: Local currency

(\*2) Contingency fund to cover cost rises caused by price increases

(\*3) The amount disbursed by the Qinghai Radio and Film and Television Bureau

The procurement of equipment and facilities was originally planned to be implemented in three packages according to the organization where the equipment and facilities would be delivered: QHBTB (radio station), QHBTB (TV station), and the Qinghai Radio Film and Television Bureau. In August 2006, the total number of packages was changed to 10 by dividing the equipment and facilities into smaller packages based on their types and functions.

As explained in 3.2.1, one package was added in 2012 to target a broadcasting station at the

<sup>8</sup> QHBTB did not recognize the expenses related to the local currency portion of this project separately from the other spending on equipment and facilities. This was done because of the changes and modifications made during project implementation such as the removal of civil work and some of the equipment from the Japanese fund and the adjustment of quantity or quality in response to changes in needs. From interviews with the Qinghai Radio Film and Television Bureau, the bureau disbursed 1.3 million RMB in relation to this project, and a total of 132 million RMB was spent on constructing the broadcast center until 2004.

prefecture level using the remaining balance of the approved loan amount. The purpose of the change in 2006 was to encourage more bidders to participate and to make the bidding process smoother. At that point in time, two and a half years had passed since the loan agreement was signed, and some of the planned equipment had already been purchased by the Chinese fund. In addition, some facilities such as smaller-scale studios were predicted to be utilized less frequently than originally planned. Thus a part of the planned equipment and facilities were cancelled. On the other hand, some other equipment and planned facilities were upgraded or expanded in response to advances in technology. For example, while canceling individual pieces of equipment that were relatively low in value, such as equipment for small-scale studios and a mobile transmitter, the project intended to introduce higher-grade systems such as an HDTV broadcasting van and related cameras and studio equipment to meet the needs of the executing agency. This was done while carefully considering the balance of the adjusted outputs and costs. As a whole, the project cost was considered to meet the actual outputs.

Table 5 Procurement Packages: Plan and Actual (Unit: million yen)

Package	Plan at appraisal	Revised plan in August 2006	Actual	
	Total	Total	Total	(Reference) Japanese product ratio (%)
1. Radio Station	118	-	-	-
2. TV Station	1,068	-	-	-
3. Radio and TV Bureau	933	-	-	-
1. Radio System	-	124	131	29
2. TV Integrated Service Networks	-	301	311	0
3. TV Audio Equipment	-	48	133	40
4. TV Video Equipment	-	403	216	97
5. Newsgathering Vehicle	-	35	43	100
6. Mobile High-Definition Television Studio System	-	553	477	51
7. Lighting System for TV Studio	-	65	74	0
8. TV and Radio Monitor System	-	159	180	26
9. Acoustic Decoration of Studio	-	317	366	4
10. Radio and TV Equipment for Grassroots Areas	-	179	230	60
11. Radio and TV Equipment Comprehensive Package	-	-	129	21
Total	2,120	2,188	2,296	36

Source: Documents provided by JICA

Note: Amount of money was rounded down to one million yen. Percentage was rounded to unit.

### 3.2.2.2 Project Period

The project period<sup>9</sup> was significantly longer than planned. The project period planned at

<sup>9</sup> The completion of the project was defined as the completion of all components, i.e., equipment and facilities, training, and consulting services. The completion of equipment and facilities was the date of delivery when completed by the contractor,

appraisal was 70 months. The actual period was 125 months, which was 179% of the planned period. Consulting services and procurement of the equipment started at later dates than planned by 16 months and 32 months, respectively. The actual period of procurement of the equipment was 86 months compared with the planned 36 months.

Table 6 Planned and Actual Project Period

	Plan	Actual
Entire Project	March 2004 (L/A signed)–December 2009 (70 months)	March 2004–July 2014 (125 months) (179% of the plan)
a) Procurement of Equipment	October 2004–September 2007	June 2007–July 2014
b) Training	October 2004–December 2009	Training: November 2007–December 2008 Joint program creation: June 2012–August 2012
c) Consulting Services	April 2004–December 2009	August 2005–June 2012

Source: Documents provided by JICA; interview with Executing Agency

The significant extension of the project period was generated cumulatively across the entire process of the project, from the consulting contract to the revising of the procurement packages, and to the procurement process of each package. Judging from the views of the involved parties and confirmed documents, major factors that affected the delay are as follows:

- 1) The selection process for a consultant such as the pre-qualification (P/Q) procedure took a longer time than anticipated.
- 2) As stated above, procurement packages were substantially revised, and the contents to be procured were adjusted before the procurement process began.
- 3) During the procurement process for individual packages, additional procedures had to be taken for some equipment and facilities to modify the specifications in response to technological advances.
- 4) Since this project was one of the first Japanese ODA Loan Projects under the STEP condition in China, smooth implementation was not necessarily ensured by the executing agency or JICA in the early stages.
- 5) In 2009, the Chinese Ministry of Finance issued a circular notice on the implementation of Japanese ODA Loan Projects (Cai Bian Jin [2009] No.38). This notice tightened the rules for the approval process when a procurement plan was to be changed. The more stringent rules

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and the completion of training was the date when Chinese trainees returned to China and Japanese experts returned to Japan (documents provided by JICA). The completion of consulting services was defined by the evaluator as the final day of the consultant's work.

included strict adherence to assessment procedures and securing of a long enough preparation period before applying for an extension. This required more time to go through the process than in the past.

For example, here is a particular case related to the procurement of individual packages: Because of trouble that developed after the procurement contract was signed between the executing agency and the supplier, it took four years from the signing of the contract in late 2008 to the completion of delivery in 2012 for the procurement of Package 6, which included an HDTV broadcasting van. The trouble was caused by a revision of the tax system in China during the process of importing and delivering the equipment and parts in the package. The change in the treatment of tax exemption for some equipment and parts caused confrontations between the two parties as to the payer and the method of required payment. This slowed the entire delivery process and necessitated revisions to price and specifications of major equipment and parts. However, neither party was able to proceed to arranging for a revision because of their confrontation. JICA, having made an effort to resolve the standoff, organized a meeting in September 2011 that was attended by the two parties and other related parties. The meeting made a breakthrough that led to the completion of delivery. According to QHBTB, the station was greatly affected by this entire process because, in addition to the additional taxes it had to pay, it needed to spend a large amount of its own financial resources to make alterations to the HDTV broadcasting van to fill the technological gap after the contractual process had stagnated.

When a problem arises after the procurement contract is concluded, it should be solved primarily between the contracting parties, namely the executing agency and the supplier. Nevertheless, this provided a case where intervention of a third party other than the direct contracting parties contributed to solving the problem.

### 3.2.3 Results of Calculations of Internal Rates of Return (Reference Only)

This project was designed to cover a broad range of effects such as the provision of broadcasting equipment, training, a mutual understanding between China and Japan through co-production and procurement of programs, and raising awareness of environment, hygiene, and market rules. Since these items cannot be measured quantitatively and comprehensively, it was not possible to calculate the internal rate of return at appraisal and at ex-post evaluation.

In summary, the project cost exceeded the planned cost, and the project period significantly exceeded the planned period. Therefore, efficiency of the project is low.

### 3.3 Effectiveness<sup>10</sup> (Rating: ③)

Effectiveness was analyzed from the aspects of quantitative effects including operation and effect indicators (broadcast coverage, number of viewers, etc.) defined at the time of appraisal and the

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<sup>10</sup> Sub-rating for Effectiveness is to be included with the consideration of Impact.

qualitative effects concerning the improvement of the quality of broadcasting.

3.3.1 Quantitative Effects (Operation and Effect Indicators)

Although the verification of quantitative effects is to be conducted by comparing the actual performance and the target values set for one year (or two years for some indicators) after project completion as defined at the time of appraisal, it was not possible at the time of the ex-post evaluation to obtain the data that showed the actual performance achieved one year after project completion because the project was completed in 2014. However, the delivery of equipment in this project was completed in 2012 except for that of the final package, which was procured additionally using the remaining fund to target lower-level broadcasting stations. We therefore conduct our verification by comparing the newest available data from 2013 and the target values.

As shown in Table 7, broadcast coverage and the number of TV viewers in Qinghai Province, as operation and effect indicators, both greatly exceeded the target values. Broadcast coverage reached 97% (vs. the target value of 90%), and the number of TV viewers grew to 1.57 million households (vs. the target value of 1.12 million households). However, these effects are considered to reflect the direct contribution of the expansion of broadcasting networks caused by the investment of the Chinese government. This project, whose goal was to improve stages of program production such as information gathering and editing, is considered to have made only an indirect contribution. In fact, broadcast coverage exceeded the target value of 90% in the mid-2000s, when the procurement for this project had not yet begun<sup>11</sup>. Therefore, verification is conducted for the quantitative indicators listed for reference purposes that are considered to have stronger associations with the improvement of program production, in addition to the operation and effect indicators (Table 8).

Table 7 Operation and Effect Indicators

	Baseline	Target	Actual		
	2003	2010	2010	2012	2013
	Baseline Year	1 Year After Completion			(Latest Year)
Broadcast Coverage in Qinghai (%)	89.6	90.0	95.03	96.33	96.93
TV Viewers in Qinghai (10 thousand households)	97.5	112.0	n.a.	154.0	156.7

Source: Documents provided by JICA and Executing Agencies; *Statistical Yearbook of China*

Among these indicators listed for reference purposes, more than 80% of the items achieved the target values in 2013 for both TV and radio. In particular, items such as the share of independently produced programs; the number of programs related to disaster, environmental conservation, and public health; and the number of programs targeting children showed a steady increase. According to

<sup>11</sup> Broadcast coverage in Qinghai was 92.5% in 2005. (Source: *Statistical Yearbook of China*)

QHBTU, the broadcasting equipment procured in this project accounts for approximately two-thirds of the station's entire equipment inventory for program production based on the number of pieces. This indicates that the equipment provided by this project greatly contributed to the improvement of the production process of QHBTU's programs.

The number of TV channels, which is one of the indicators that did not achieve its target values, has not changed from four from the time of appraisal because new approval has not been obtained. On the other hand, a new radio channel called the "Life Channel" was set up. Currently, QHBTU does not purchase or broadcast programs produced in foreign countries. The principal reason mentioned by QHBTU was the difficulty in planning to broadcast these programs because the number and broadcasting hours of foreign programs were strictly regulated. In addition, broadcasting all of these programs had to be approved in advance by the higher administrative bodies of China such as SAPPRT. Other reasons pointed out by QHBTU included the generally high costs of buying foreign programs directly, a lack of capacity to reprocess the programs such as dubbing on its own, and a lack of experience with direct importing. On the other hand, there is also a shared understanding that broadcasting foreign content could increase the attractiveness of the station and thereby its earning power in an environment where there is a growing competition with other TV stations (such as satellite channels in the other provinces) over attracting a greater audience. It is presumed that QHBTU intended to purchase Japan-made programs at least to a certain extent, since the training session of the project had as one of its purposes a discussion of this issue with Japanese broadcasting stations, as stated above. Judging from the above information, the regulations of the authorities mostly affected the results of program purchasing.

Table 8 Other Indicators

		Baseline	Target	Actual		
		2003	2010	2010	2012	2013
		Baseline Year	1 Year After Completion			(Latest Year)
Number of education programs (programs/year)	T	14	16 (*)	17	18	18
	R	4	6 (*)	8	8	8
Broadcasting hours per day of education programs (hours/day)	T	11.3	12.4(*)	12	14	14
	R	2	4(*)	4.4	5	5
% Share of independently produced programs (%)	T	9.86	15 (*)	15	20	20
	R	60	66(*)	72	80	80
Number of independently produced programs (programs/year)	T	2,371	2,736	2,430	2,740	2,740
	R	40,880	54,100	53,220	54,300	54,300
Number of channels (channels)	T	4	6	4	4	4
	R	4	5	4	5	5
Broadcasting hours (hours/year)	T	21,900	27,740	27,740	27,740	27,740
	R	21,298	26,621	26,280	35,040	35,040
Number of programs related to disaster management (programs/year)	T	364	380	390	410	410
	R	730	912	907	979	979
Number of programs related to environmental conservation (programs/year)	T	208	218	237	240	240
	R	2,920	3,650	3,840	3,907	3,907
Number of programs related to public	T	208	312	314	321	321



		Baseline	Target	Actual		
		2003	2010	2010	2012	2013
		Baseline Year	1 Year After Completion			(Latest Year)
health (programs/year)	R	2,920	3,650	3,694	3,812	3,812
Number of programs related to the development of market economy (programs/year)	T	160	160	163	164	164
	R	730	912	914	920	920
Number of programs produced in other countries (programs/year)	T	624	624	0	0	0
	R	94	114	0	0	0
Number of programs produced in Japan (programs/year)	T	219	238	0	0	0
	R	38	67	0	0	0
Number of programs targeting ethnic minority groups (programs/year)	T	312	468	480	484	484
	R	5,840	7,300	7,473	8,243	8,243
Number of programs targeting women (programs/year)	T	414	466	468	501	501
	R	1,095	1,369	1,396	1,427	1,427
Number of programs targeting children (programs/year)	T	104	104	280	310	365
	R	547	684	580	650	787

Source: Documents provided by JICA and Executing Agencies; *Statistical Yearbook of China*

T: Qinghai TV Station; R: Qinghai Radio Station

Note (\*): It is indicated in the JICA document that these are target figures for 2008 and “two years after completion.”

### 3.3.2 Qualitative Effects

The use of equipment and facilities procured in this project at QHBTv improved the quality of broadcast through the diversification of program production tools, enhancement of production techniques, promotion of business operations, and so on. Appreciation of QHBTv’s programs from viewers and concerned persons has generally been improving. In concrete terms, the following qualitative effects are observed:

- The HDTV Outside Broadcasting Van made it possible to flexibly produce and broadcast quality programs. Some examples are as follows: 1) on-site reporting was conducted as part of the special memorial program on the 2010 Yushu earthquake that was aired by China Central Television (CCTV) in 2013; 2) location shooting for a popular TV variety show, “Men and Women Climb the Highland” (total 40 parts; Satellite Channel), produced jointly with Anhui Television, was conducted; 3) live broadcasts of political events such as the People’s Congress and the People’s Political Consultative Conference of the province, and large-scale sporting events such as “The Tour of Qinghai Lake,” which is an international road cycling race.
- Technological transition from analog to digital equipment realized as a full-scale digital system in all stages of recording, editing, and airing. This improved the quality of the picture and video image.
- The improved stationwide operational network generated an efficient operation model in accordance with the times. For example, a production system using no video tapes was realized, and a nonlinear editing system<sup>12</sup> was introduced. This improved the efficiency of a series of

<sup>12</sup> Computer-based editing system dealing with digitalized data, which does not require “linear work” such as rewinding and fast-forwarding of videotapes according to the time flow.

work processes, saving the cost and time of recording, editing, and airing.

- The appreciation of governmental bodies in the country concerning the programs produced by QHBTB has been improving. In the period from 2012 to 2013, 37 and 64 programs won awards from the state and province, respectively. For instance, QHBTB's documentary program titled "Looking Development: Brilliant Words" was selected by SAPPREFT as one of "The 18 Excellent Chinese Documentary Programs of the Communist Party."
- The audience rate survey of TV programs in Xining City shows that QHBTB's "Qinghai News Report" received an average rating of 3.5% and was ranked third among news programs, and "People's One Hour" received a rating of 2.8% and became the sixth-ranked news program in 2013 (Source: *China TV Rating Yearbook*). While most of the top-ranking programs in this genre were nationally-broadcast shows produced by CCTV, the programs produced by QHBTB are considered to have been chosen for the citizens of Xining because of their closeness to people's daily lives.
- The answers from the beneficiary survey<sup>13</sup> also confirmed the qualitative and quantitative improvement of the programs of QHBTB. The survey results indicated that the station's TV programs concerning education, culture, and living improved in comparison with programs of 5 to 10 years ago in the following aspects (in decreasing order of the appreciation of TV viewers): (i) increase in the number of programs; (ii) provision of more local information; (iii) usefulness to broaden knowledge; and (iv) provision of more easily understood programs. Radio programs were also highly evaluated by listeners in the following aspects (in decreasing order): (i) provision of more local information; (ii) increase in the number of programs; (iii) provision of more easily understood programs; and (iv) usefulness to broaden knowledge.

On the other hand, a direct link between the activities conducted as part of the soft component and the improvement of broadcast quality was not found. As stated in "3.2.1 Project Outputs," the training of the technical staff was shortened, and the contents of the training were modified. This was done to focus on the meetings with Japanese broadcasting stations to promote collaboration and on site visits to manufacturers and broadcasting stations. The purchasing of programs produced in Japan, and co-productions between the broadcasting stations of both countries, were not realized.

Some of the technical staff at QHBTB who participated in the training commented that they found the training useful because they could gain knowledge on the latest equipment and facilities. The technical staff also exchanged information and viewpoints with Japanese engineers at the manufacturers of broadcasting equipment that were visited as part of the training program. However, considering that this experience does not necessarily indicate a direct connection with the equipment and facilities procured in this project, and that the training was conducted for a limited period of time, the contribution of the training to the improvement of program production at QHBTB is thought to

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<sup>13</sup> The beneficiary survey was conducted in December 2014 in Xining City, and Hainan Tibetan Autonomous Prefecture (Gonghe County and Guide County), using questionnaires administered by researchers. Valid answers were obtained from 100 people in total (64 males and 36 females). The questionnaire mainly consisted of questions regarding TV and radio viewing and listening behavior, evaluation of QHBTB programs, and knowledge and interest in foreign countries (U.S., Korea, and Japan) via broadcasting.

have been limited on the whole.

The effects of some activities in the soft component on a mutual understanding between Japan and China will be explained below in “3.4 Impacts.”



Setting Up the HDTV Broadcasting Van for Broadcast (QHBT)



Inside of HDTV Broadcasting Van (QHBT)

### 3.4 Impacts

#### 3.4.1 Intended Impacts

(1) Advancement of Education, Cultural Enrichment, and Knowledge Enhancement for Qinghai Citizens

As stated above, the number and broadcasting hours of programs related to education, culture, and social and living information have been increasing from the time of appraisal. According to QHBT, the station is always adjusting the contents and expression techniques of these programs to the social situations and needs of the audience. For example, the number of programs related to disaster prevention has increased since the earthquake in 2010, and weather forecasting programs now include disaster warnings and geological hazard information.

The Tibetan channel, which is mainly broadcast in the Tibetan language and one of two satellite channels operated by QHBT, has remarkably expanded according to the needs of the people in the Tibetan ethnic minority group. When the channel launched in 2006, daily broadcasting was limited to only two hours, of which one hour was for programs broadcast in Mandarin Chinese. Currently the channel broadcasts 18 hours a day. Throughout China, there are three Tibetan channels operated by different province-level TV stations. All programs on QHBT's channel are produced in the Amdo dialect of the Tibetan language. Thus, the QHBT Tibetan channel serves as useful means of accessing information by the Amdo Tibetan people who, according to QHBT, have the largest population (2.6 million) of all dialect groups in a total population of approximately five million. For example, “Road to Wealth” is broadcast by this channel to provide a variety of information on livestock farming and daily living for the Tibetan people. Apart from QHBT, in the broadcasting station of the Hainan Tibetan Autonomous Prefecture where the equipment and facilities were provided by this project, two thirds of the independently produced TV programs are in Tibetan. From our interview with the station, these programs are appreciated enormously by the Tibetan

residents, especially elderly people, whose mother tongue is not Chinese.

As mentioned above, our beneficiary survey also ascertained that QHBTBTV programs related to education, culture, and social and living information are appreciated by the audience because of the wealth of the number of programs, closeness to the locality, enhancement of knowledge, and easy understanding and so on. In particular, the respondents named TV programs such as “Legal Program,” “Qinghai News Report,” “People’s One Hour,” and radio programs such as “Political Hotline” and “Downtown Story.” These are all recognized as useful programs to obtain information or knowledge that is closely related to the viewers’ daily lives.

From the above information, QHBTBTV is strengthening awareness of the people through the enhancement of programs related to culture, education, and social and living information. QHBTBTV is also making an effort to respond to the needs of society with an increase in programs about disaster prevention after a big earthquake hit the province, and by expanding its programming to improve the information access of ethnic minority groups. The audience is also utilizing the programs to increase knowledge and to obtain useful information for their daily lives. We therefore conclude that beneficial impacts have been achieved by the project.



Delivered Studio Equipment and Facilities  
(Hainan Tibetan Autonomous Prefecture)



Delivered Japanese-made Studio Camera  
(Hainan Tibetan Autonomous Prefecture)

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

The 45-minute TV program “Village Life,” which was co-produced with a Japanese production firm in 2012, was aired approximately twice on QHBTBTV’s satellite channel and its terrestrial channel, respectively. The theme of the program was the cooperation between Chinese and Japanese villages working on the “One Village One Product” movement. Although the program content was relevant to the deepening of mutual understanding between Japan and China, information on concrete responses from viewers after the broadcasting was not obtained.

Some technical staff of QHBTBTV who participated in the training in Japan commented that they were impressed by the earnest and diligent attitude of Japanese workers at the broadcasting stations and manufacturers they visited.

On the other hand, we conducted a beneficiary survey to find out how the media changed the

people's impression of and interest in Japan. Since QHBTB's airing of Japanese-made programs has been extremely limited for the last five years, our questions did not address particular broadcasting stations. The respondents obtain their information about Japan mostly from news programs from CCTV out of all types of TV programs. The answers concerning the frequency of gaining knowledge of Japan from TV programs compared with 5 to 10 years ago were "no change" for 53% of respondents, "increased" for 23%, and "decreased" for 4%. The answers concerning changes in the impression of Japan as seen in TV programs compared with 5 to 10 years ago were "no change" for 41%, "became better" for 14%, and "became worse" for 21%. When the same question was asked concerning viewers' impressions of the United States and Korea, more people answered "no change" (54% and 57%, respectively) and fewer answered "became worse" (7% and 1%, respectively).

Because the purchasing and airing of programs concerning Japan have been extremely limited, it is considered that this project had a very limited impact on deepening the understanding of Japan among citizens of Qinghai in general. However, as stated above, some of the participants in the training as part of this project deepened their understanding of Japanese people by observing the work attitude of Japanese workers and engineers at broadcasting stations and companies.

### (3) Strengthening of Collaboration Between Japanese and Chinese Broadcasting Stations

There were no identified cases of collaboration between QHBTB and Japanese broadcasting stations being strengthened through this project. The TV program "Village Life" was co-produced with a Japanese production company in 2012. A portion of the video pictures used in the program was provided at no charge by the Oita Broadcasting System (OBS), but there has been no cooperation with OBS after this. It is presumed that the momentum to pursue collaborations with foreign broadcasting stations was not generated because there was no purchasing of Japanese-made programs or co-production with Japanese broadcasting stations in the project, which was also affected by other factors such as the policy and regulations of the upper authorities and the resource limitations of QHBTB.

#### 3.4.2 Other Impacts

Other positive impacts include the fact that the advertising revenue of QHBTB has been increasing since 2009 when Qinghai TV Station and Qinghai Radio Station were merged into QHBTB. The advertising revenue of the TV section, which accounts for approximately 80% of the total advertising revenue, has grown at a rate of more than 10% annually. QHBTB associates this with the increase in the viewer ratings of certain programs owing to the improved production level.

Construction of the new broadcast center for QHBTB was completed in 2004, and the center became fully operational. No impact on the natural environment arising from this project has been identified. This project did not involve the acquisition of new land or the relocation of inhabitants.

As discussed above, target values were attained for the majority of quantitative indicators defined for the purpose of verifying the effects of this project. Qualitative indicators also confirmed improvements in the quality of programs by improving various program production technologies and methods. Although some of the planned impacts were missing or limited, it was found that programs responding to the needs of society were produced and utilized for the daily lives of the people.

Based on the above information, 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

In September 2011, the Qinghai TV Station and the Qinghai Radio Station were merged into QHBTv, and the Qinghai Radio Film and Television Bureau and QHBTv became organizations that are equally ranked at the same level of administration. As a result, the respective organizations operate and maintain the equipment and facilities provided to them in this project. In addition, the equipment and facilities delivered to local broadcasting stations such as the station in Hainan Tibetan Autonomous Prefecture are maintained by each station.

At QHBTv, under the supervision of the Deputy Technical Manager, the Technical Maintenance Department controls the overall system of operation and maintenance. The Maintenance and Repair Division in the department serves as the contact point with production and other departments. Each of these departments is responsible for operation and maintenance of the equipment and facilities it owns. In the Qinghai Radio Film and Television Bureau, the Secretariat Office and the Monitoring Center are in charge of operating and maintaining the LAN network system and the TV and radio monitoring network system, respectively.

As stated above, owing to the reorganization of administrative bodies that was undergone after the project started, the Qinghai Radio Film and Television Bureau and QHBTv became equally ranked organizations in the administration. However, the division of responsibility for the equipment and facilities procured in this project has been clearly organized. Although it was observed at the time of the ex-post evaluation that the transfer of some records and documents for radio equipment to QHBTv had not been completed, the transfer work is ongoing between the bureau and QHBTv, and there is no particular problem identified for the future. Thus, no institutional problems are found in operation and maintenance.

#### 3.5.2 Technical Aspects of Operation and Maintenance

QHBTv has a total of 125 engineers (31 senior-level, 51 middle-level, and 43 entry-level engineers) and technicians. The technical staff is assigned to the Technical Maintenance Center or production departments and works on the operation and maintenance of the equipment and facilities procured in this project. The Qinghai Radio Film and Television Bureau has nine engineers (six senior-level and three middle-level engineers) of approximately 40 staff members working in the

main functions of the bureau.

In QHBTB and the bureau, protocol documents or manuals for ordinary operations and emergencies are prepared on the use of the equipment and facilities generally and individually. For example, manuals regarding the duty and emergency plan of the General Operation Network Center, technical regulations and procedures on program making, regulations on operation and maintenance of production machines and equipment, manuals on the use of nonlinear editing systems for each manufacturer were identified at QHBTB. In addition, the emergency plan for the LAN system room, regulations on the operation and maintenance of general equipment, and regulations on the duty system of operation and maintenance were found in the bureau. The main protocol documents and manuals are located on the wall of the premises so that the staff can easily check them. These documents and manuals are utilized during in-house training, as explained below.

Training for operation and maintenance is first provided to the staff of the executing agencies by manufacturers or integrators of the equipment and facilities. For example, engineers of QHBTB participated in the training for the HDTV broadcasting van that was held in Beijing by the manufacturer. In addition, QHBTB provides its own training to its staff. Recently, in-house training was conducted about nonlinear editing. QHBTB considers the qualifications for an engineer as one of the criteria for employing its technical staff, but it also sets a regulation that requires personnel to pass two kinds of exams for them to be assigned to the person in charge of managing equipment and facilities.

In summary, the technical staff is being fostered with the combination of various means such as training by manufacturers, in-house training by QHBTB, and on-the-job training. In addition, internal exams are provided by QHBTB so that appropriate employees are involved in operation and maintenance. From the above, it is considered that the presence of sufficient technology for operation and maintenance is ensured.



Broadcast Control and Monitoring Center  
(Qinghai Radio Film and Television Bureau)



Nonlinear Editing Room with Operation Manual  
(QHBTB)

### 3.5.3 Financial Aspects of Operation and Maintenance

With regard to QHBTB's business operation, concrete figures for revenue and expenditures were



not obtained from QHBTB during the ex-post evaluation. Therefore, the analysis in this section is based mainly on the information on the financial structure and its trends that were acquired during interviews with QHBTB and the Qinghai Radio Film and Television Bureau. According to QHBTB, the revenue of the station is composed of advertising revenue, revenue from the business operations of affiliated organizations, and subsidies from the government. The advertising revenue has been on the increase for the last five years. In particular, the advertising revenue of the TV section, which accounts for approximately 80% of the total advertising revenue, has grown at a rate of more than 10% annually. The subsidy from the provincial government is divided into two components: ordinary funding whose amount is fairly stable every year, and a special fund that can be provided depending on the government programs. The latter has been showing an increasing trend. This entire situation has resulted in a growth in total revenue. The budget for operation and maintenance usually accounts for approximately 10–15% of the total annual budget. There were no major problems identified during the interviews about operation and maintenance and the updating of the equipment and facilities. The expense for operation and maintenance during the latest year was 15.3 million RMB (241 million yen).

At the time of the ex-post evaluation, QHBTB was planning to upgrade its entire broadcasting system to respond to HDTV broadcasting by the end of 2014. However, it was anticipated that the largest part of the required budget would be financed by the government, and that a small portion would be invested by the station.

From the above information, combined with the situation stated below in “3.5.4 Current Status of Operation and Maintenance,” the necessary funding is secured and a large amount of investment in upgrading is not expected. Therefore, it is considered that the financial sustainability of operation and maintenance is guaranteed.

#### 3.5.4 Current Status of Operation and Maintenance

According to QHBTB, the equipment and facilities procured in this project are maintaining a stable operation. There are still equipment and facilities that were delivered recently, such as the Total Operation Network System and the HDTV broadcasting van. Most of the purchase contracts stipulate that necessary consumable and precision parts will be provided for one to three years after initial delivery by the supplier. In addition, QHBTB is letting contracts for maintenance services with the manufacturer after the guaranteed period of all the procured equipment. Daily checkups of the equipment and facilities are carried out by the Technical Maintenance Department, and there have been no major problems with repairing of the equipment or securing of spare parts.

While some of the equipment and facilities in the project, which were delivered during the early period of the project, were already updated to newer versions, these updating activities have been conducted without any major problems from technical as well as financial aspects.

In summary, sufficient action is taken for operation and maintenance on a daily basis, and equipment is updated as necessary. Therefore, it is considered that operation and maintenance are



performed appropriately.

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.

## **4. Conclusion, Lessons Learned and Recommendations**

### 4.1 Conclusion

The goal of this project was to improve the quantity and quality of TV and radio programs in Qinghai Province by updating the broadcasting infrastructure and providing training to the staffs of the broadcasting stations. This would contribute to the advancement of education, knowledge enhancement, and cultural enrichment of the citizens in Qinghai, and also to the promotion of mutual understanding between China and Japan. The project was highly relevant to the development plans and development needs of China, especially in Qinghai Province, from the appraisal to the ex-post evaluation, and also to Japan's assistance policy for China at appraisal; therefore, the relevance of this project is high. While the project outputs were appropriately produced with some modifications to the original plan, the project cost exceeded that of the plan, and the project period was significantly longer than planned; therefore, its efficiency is low. The project significantly contributed to the improvement of the broadcast programs in quantity and quality, and has had a certain observable impact; therefore, its effectiveness and impact are high. No major problems have been observed in the institutional, technical, or financial aspects of the operation and maintenance system; therefore, sustainability of the project effects is high. In light of the above, this project is evaluated to be satisfactory.

### 4.2 Recommendations

#### 4.2.1 Recommendations to the Executing Agency

In November 2014, the broadcasting station of Hainan Tibetan Autonomous Prefecture commenced full-scale operations of its new broadcast center, thus beginning the operation of all equipment and facilities procured in this project. This project has played a significant role in developing the broadcasting infrastructure and enhancing the levels of producing and broadcasting technology across Qinghai Province, in the sense that broadcasting equipment and facilities were provided not only to QHBTB (a province-level station) but also to a number of local stations in seven autonomous prefectures and prefecture-level cities and nine counties and county-level cities through the Qinghai Radio Film and Television Bureau. Since this is an appropriate timing to reflect on the 10-year cooperation project between Japan and China having born fruit, and the contribution of this project to the tireless efforts of the central and provincial governments of China to enhance the quality and quantity of broadcasting, we recommend that the executing agency implement public relations activities concerning this project.

#### 4.2.2 Recommendations to JICA

The final procurement of equipment and facilities in this project was completed in July 2014 with a delivery to the broadcasting station of Hainan Tibetan Autonomous Prefecture, which commenced full-scale operations of its new broadcast center in November 2014. The station is equipped with a modern HDTV broadcasting system, including studio equipment for Chinese and Tibetan broadcasts and program production systems. These have contributed greatly to the improvement of the local broadcasting station. This is considered to be a suitable opportunity to publicize the information regarding the cooperation between the two countries for supporting the broadcasting infrastructure from the local level. We therefore recommend that JICA place relevant information on its website.

#### 4.3 Lessons Learned

##### **(1) Strengthening of Information Sharing During the Implementation of the Project Involving Quickly Changing Technology**

The project took approximately eight and a half years from the signing of the loan agreement to the conclusion of the contract for the final procurement package, and more than 10 years to the completion of delivery. This significantly exceeded the planned period. It is necessary to implement a project in areas that face rapid progress in technology such as broadcasting, taking into consideration that the more the project is prolonged, the wider the gap in technical needs that is created between the needs at the planning stage and those at the time of delivery. When the delivery process of a procurement package in this project slowed considerably because of trouble that developed between the executing agency and the supplier (which was caused by a revision of the tax system in China made during the implementation of the project), JICA's active involvement in the situation led to the completion of delivery. This implies that active intervention of a third party during conflict between contracting parties could become an effective means to ensure a smooth execution of procurement contracts.

In addition, for more effective involvement, the third party must be able to sense the problem as early as possible. Thus, JICA, together with the supervising agency or other organizations of the partner country, should pay special attention to developments in the procurement process by keeping in close contact with the executing agency and supplier in projects that involve equipment that may become technologically obsolete. While it would be difficult to set a uniform arrangement of communication because the supervising system of Japanese ODA loan projects is different from country to country, possible measures include regular meetings involving a broad range of concerned parties on an individual project basis. Another option is to establish a reporting system among the interested parties to share information whenever necessary, without requiring "regular" meetings.

##### **(2) Importance of the Assessment of Achievement and Risk in Highly Difficult Soft Component**

The soft component planned in this project included training, the purchase of Japanese television programs, and co-productions with Japanese broadcasting stations. Unlike the hard component, in

which procurement is conducted based on a more or less concrete plan, the soft component in this project involved challenging activities that aimed to promote mutual understanding between Japan and China on the basis of many uncertain factors such as business decisions of the broadcasting stations in both countries, negotiations between broadcasting stations, and the policies of both countries. In planning such a difficult soft component, it is necessary to carefully locate and assess the extent of risks to achievement, beginning at the time of appraisal. In particular, if the activities in the soft component are susceptible to the direct impact of policies and regulations, such as licensing and approval of the government, we need to conduct information processing and analysis in advance that focuses on feasibility. For example, a major factor that impeded the purchase of Japanese programs in this project was the policies and regulations of the Chinese authorities. According to the documents provided by JICA, although the past records of the purchase of foreign-made programs was confirmed, the possibility of restrictions on purchases or imports was not recognized as an explicit risk at the time of appraisal, and a survey on relevant policies and rules was commissioned after the beginning of the project.

For a highly difficult soft component, setting high goals at the time of planning to maximize the effects of a bilateral cooperation project is a strategy that should not be rejected. On the other hand, proper recognition of the risks that can greatly affect the manifestation of effects and sufficient sharing of this recognition between the two countries in advance would provide the basis for a common understanding among the people from both countries as to how much success would be probable in reality. Explicit indication of such risks at the time of appraisal would also facilitate a convincing ex-post verification of the actual results.

### **(3) Relevant and Effective Public Relations for the Project**

In the documents provided or the press release disclosed by JICA on this project, the project was summarized as targeting QHBT (Qinghai TV Station and Qinghai Radio Station at the time of appraisal). An explanation about the cooperation to be rendered to the stations at the prefecture and county levels was omitted. In reality, in addition to the broadcasting station at the province level, namely QHBT, the equipment and facilities were provided to the local stations of seven autonomous prefectures and prefecture-level cities and nine counties and county-level cities. Referring to a list of procuring items that were initially planned, cooperation with local broadcast stations was included in the project plan, indicating that the project essentially aimed to enhance broadcasting of the entire province that covered lower-tier administrative bodies. The equipment and facilities provided in this project when the broadcasting stations in Qinghai (especially at the local level) were faced with a shortage of funds were highly appreciated. However, an entire picture of the project has not necessarily been shown explicitly outside the province in China or in Japan. When JICA implements public relations activities in starting a new project, it should consider providing information adequately and proactively on the project's role in, and contribution to, the development of the partner country, fully considering the effect of dissemination.

Comparison of the Original and Actual Scope of the Project

Item	Plan	Actual
<p>1. Project Outputs “Hard” Component</p>	<p>&lt;Qinghai TV Station&gt;</p> <ul style="list-style-type: none"> <li>• Development of broadcast center (renovation of studios, air conditioners, etc.)</li> <li>• Studio equipment (digital cameras/recorders/editors, HDTV cameras/recorders, lighting, etc.)</li> <li>• Broadcasting van</li> <li>• broadcast center building construction (procured by the Chinese fund)</li> </ul> <p>&lt;Qinghai Radio Station&gt;</p> <ul style="list-style-type: none"> <li>• Studio equipment (recording system, duplicating equipment, computer broadcasting system, etc.)</li> <li>• Broadcasting van</li> </ul> <p>&lt;Qinghai Radio Film and Television Bureau/Local Stations&gt;</p> <ul style="list-style-type: none"> <li>• Broadcast monitoring system</li> <li>• Broadcasting equipment for local stations</li> </ul>	<p>&lt;Qinghai Radio and TV Station&gt;</p> <ul style="list-style-type: none"> <li>• Development of broadcast center (renovation of studios, air conditioners, etc.)</li> <li>• Civil work related to renovation of studios (procured by the Chinese fund)</li> <li>• TV studio equipment (digital cameras/recorders/editors, HDTV cameras/recorders, lighting, etc.)</li> <li>• HDTV broadcasting van</li> <li>• broadcast center building construction (procured by the Chinese fund)</li> </ul> <ul style="list-style-type: none"> <li>• Radio studio equipment (recording system, duplicating equipment, computer broadcasting system, etc.)</li> <li>• Radio broadcasting van</li> </ul> <p>&lt;Qinghai Radio Film and Television Bureau/Local Stations&gt;</p> <ul style="list-style-type: none"> <li>• Broadcast monitoring system</li> <li>• Bureau’s operation network system</li> <li>• Broadcasting equipment for local stations (cameras, recorders, editors)</li> </ul>
<p>“Soft” Component</p>	<p>&lt;Qinghai TV Station&gt;</p> <ul style="list-style-type: none"> <li>• Training (camera technique: 1 month × 3 staff; editing: 1 month × 3 staff; transmission: 1 month × 3 staff): Total 270 person-days</li> <li>• Collaboration with NHK and Hokkaido Broadcasting Co. Ltd. (HBC)</li> <li>• Purchase of programs/broadcasting rights of programs produced in Japan</li> <li>• Co-production of programs with Japanese broadcasting stations</li> <li>• Obtaining of programs held by NIME-WORLD</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiations with/site visits to broadcasting stations and manufacturers, etc.: 10 days × 9 staff; 7 days × 6 staff; 8 days × 6 staff): Total 180 person-days</li> <li>• Co-produced TV program titled “Village Life” (45 min) with a Japanese production company</li> <li>• Collaboration with Japanese broadcasting stations, purchase of programs/broadcasting rights of programs produced in Japan, and obtaining of programs were not implemented.</li> <li>• Obtaining of programs held by NIME-WORLD was not implemented.</li> </ul>

	<p>&lt;Qinghai Radio Station&gt;</p> <ul style="list-style-type: none"> <li>▪ Training (recording: 1 month × 1 staff; editing: 1 month × 2 staff): Total 90 person-days</li> <li>▪ Purchase of music produced in Japan</li> </ul>	<ul style="list-style-type: none"> <li>▪ Purchase of music produced in Japan was not implemented.</li> </ul>
Consulting Services	<p>(a) Support in procurement</p> <ol style="list-style-type: none"> <li>① Preparation of detailed design (D/D) and pre-qualification (P/Q) documents</li> <li>② Evaluation of P/Q results</li> <li>③ Preparation of tender documents</li> <li>④ Evaluation of tender results</li> </ol> <p>(b) Support in training and others</p> <ol style="list-style-type: none"> <li>① Training in Japan</li> <li>② Co-production of programs with Japanese broadcasting stations</li> <li>③ Purchase of Japanese programs and broadcasting rights</li> </ol>	<p>(a) Support in procurement</p> <ol style="list-style-type: none"> <li>① Preparation of detailed design (D/D) and post-qualification documents</li> <li>② Preparation of tender documents</li> <li>③ Evaluation of tender results</li> </ol> <p>(b) Support in training and others</p> <ol style="list-style-type: none"> <li>① Training in Japan</li> <li>② Co-production of programs with a Japanese production company</li> </ol>
2.Project Period	March 2004–December 2009 (70 months)	March 2004–July 2014 (125 months)
3.Project Cost		
Amount paid in Foreign currency	2,354 million JPY	2,353 million JPY
Amount paid in Local currency	1,617 million JPY (113 million RMB)	1,747 million JPY (133 million RMB)
Total	3,971 million JPY	4,100 million JPY
Japanese ODA loan portion	2,354 million JPY	2,353 million JPY
Exchange rate	1 RMB = 14.3 JPY (As of September 2003)	1 RMB = 13.7 JPY (Average between 2003 and 2012; applied to broadcasting equipment) 1 RMB = 13.1 JPY (2004 average; applied to building of broadcasting station)