

NO. 1

**BASIC DESIGN STUDY REPORT
ON
THE PROJECT
FOR
THE CONSOLIDATION OF
EDUCATIONAL TELEVISION
AND
RADIO RECORDING STUDIOS
IN
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**

January, 2002

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*Japan International Cooperation Agency
NHK Integrated Technology Inc.*

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NHK INTEGRATED TECHNOLOGY INC.**

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PREFACE

In response to a request from the Government of the Federal Democratic Republic of Ethiopia, the Government of Japan decided to conduct a basic design study on the Project for the Consolidation of Educational Television and Radio Recording Studios and entrusted the study to the Japan International Cooperation Agency (JICA).

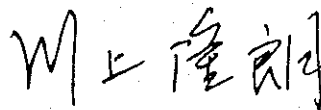
JICA sent to Ethiopia study teams from 17 July to 22 August, and from 29 November to 7 December, 2001.

The team held discussions with the officials concerned of the Government of Ethiopia, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to Ethiopia in order to discuss a draft basic design, and as this result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Federal Democratic Republic of Ethiopia for their close cooperation extended to the teams.

January 2002



Takao Kawakami

President

Japan International Cooperation Agency

January, 2002

Letter of Transmittal

We are pleased to submit to you the basic design study report on the Project for the Consolidation of Educational Television and Radio Recording Studios in the Federal Democratic Republic of Ethiopia.

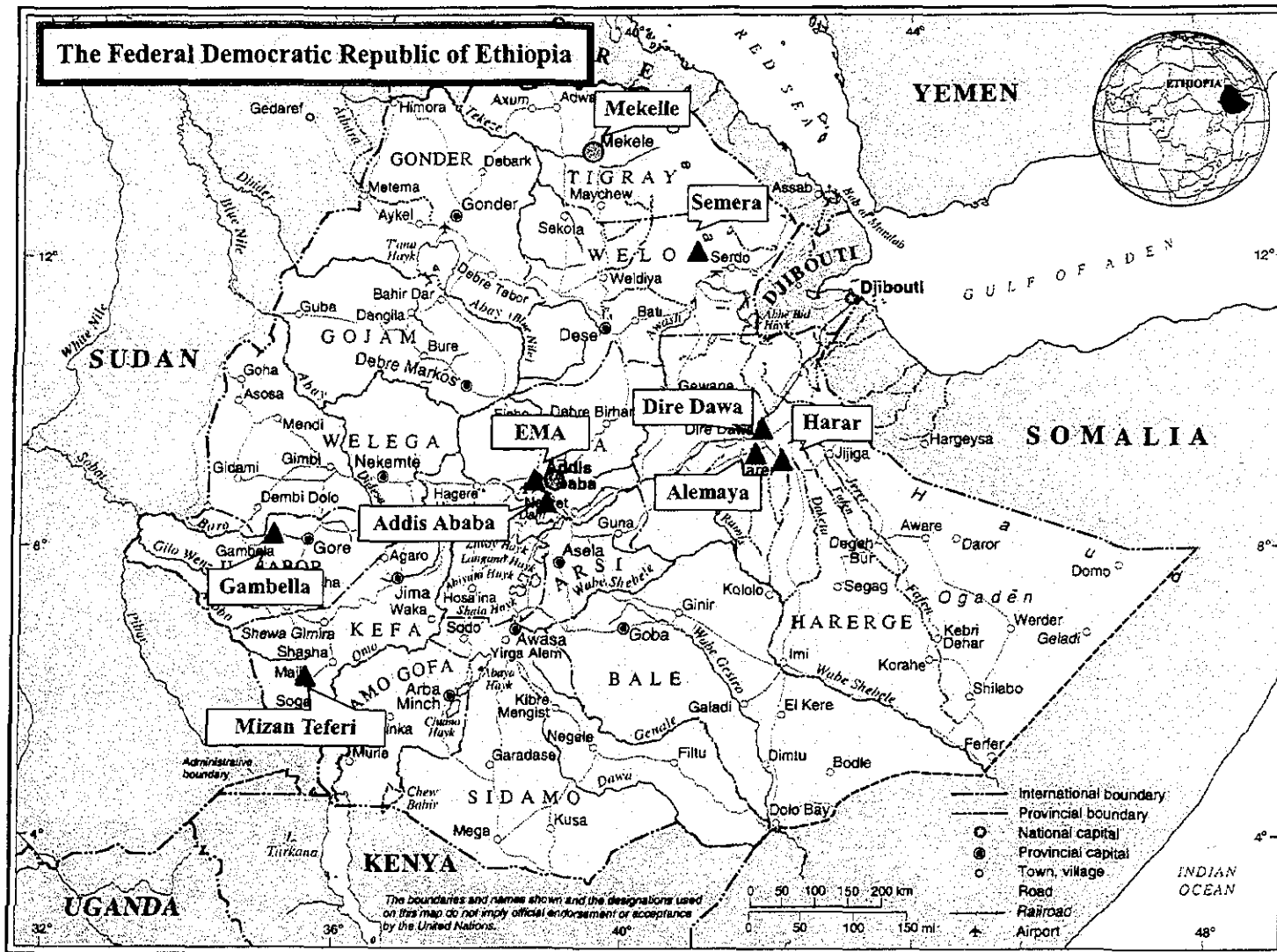
This study was conducted by NHK Integrated Technology Inc., under a contract to JICA, during the period from July, 2001 to January, 2002. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Ethiopia and formulated the most appropriate basic design for the project under Japan's grant aid scheme.

Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,

長 瀬 章

Akira NAGASE
Project Manager,
Basic design study team on
The Project for the Consolidation of
Educational Television and
Radio Recording Studios
NHK Integrated Technology Inc.



Project Sites Map

⊙ TV Studio

▲ Radio Studio

Abbreviations

A/D	:	Analog to Digital Converter
ADA	:	Audio Distribution Amplifier
AMP	:	Amplifier
AUX	:	Auxiliary
AVR	:	Automatic Voltage Regulator
AfDB	:	African Development Bank
B.B	:	Black Burst
BO	:	Boom Operator
CCU	:	Camera Control Unit
CD	:	Compact Disk Recorder/Player
CG	:	Character Generator
CR	:	Control Room
D/A	:	Digital to Analog Converter
DA	:	Distribution Amplifier
DAT	:	Digital Audio Tape Recorder
DfID	:	Department for International Development
EIAJ	:	Standard of Electronic Industrial Association of Japan
EMA	:	Educational Media Agency
ESDP	:	Education Sector Development Program
ETV	:	Ethiopian Television
EU	:	European Union
FD	:	Floor Director
FPU	:	Field Pickup Unit
ICDR	:	Institute of Curriculum Development & Research
IEC	:	International Electromechanical Committee
I/F	:	Interface
IF	:	Inter Frequency
IRI	:	Interactive Radio Instruction
ITU	:	International Telecommunication Union
JIS	:	Japanese Industrial Standard
L	:	Left
LD	:	Lighting Director
LO	:	Lighting Operator
MIC	:	Microphone

MIX	:	Mixer
MOE	:	Ministry of Education
NORAD	:	Norwegian Agency for Development Cooperation
PAL	:	Phase Alternating Line
PD	:	Program Director
PGM	:	Program
R	:	Right
REB	:	Regional Education Bureau
RET	:	Return
SIDA	:	Swedish International Development Authority
SP	:	Speaker
ST	:	Studio
STL	:	Studio-to-Transmitter Link
SYNC	:	Synchronizing Signal
TBC	:	Time Base Corrector
TD	:	Technical Director
TTC	:	Teacher Training College
TTI	:	Teacher Training Institute
TVRO	:	Television Receiving Only
UNDP	:	UN Development Program
UNESCO	:	UN Educational, Scientific and Cultural Organization
UNFPA	:	UN Fund for Population Activities
UNICEF	:	UN Children's Fund
UPS	:	Uninterrupted Power Supply
USAID	:	U.S. Agency for International Development
VDA	:	Video Distribution Amplifier
VE	:	Video Engineer
VS	:	Vector Scope
VTR	:	Video Tape Recorder
VU	:	Volume Unit
WFM	:	Wave Form Monitor
WFP	:	World Food Program

SUMMARY

Ethiopia enacted a new constitution in 1994, which guaranteed freedom of religion and independence of regional states consisting of different ethnic tribes that had been controlled by a socialist government with centralized administrative power. Since then, the country has been promoting free economy and national development. To foster human resources to support the country's development, the Ethiopian government began drafting the Education Sector Development Program (ESDP) in 1997 to improve its educational systems. As a result, a 5-year Action Plan (1997/1998 - 2001/2002) was completed in June 1999.

ESDP places great emphasis on the improvement of elementary education and lists the following six items as its main objectives:

- ① Improvement of low enrollment ratio (to raise elementary school enrollment ratio to 50% by 2000)
- ② Enhancement of educational services in remote areas and for girls (to raise the enrollment ratio of girls to 45%)
- ③ Provision of high-quality education (to distribute textbooks to individual students, upgrade school facilities, enhance teachers training)
- ④ Rationalization of the inefficient educational system (to optimize the school operations by reviewing educational program, and to decrease dropouts and repeaters)
- ⑤ Securing of adequate fund
- ⑥ Enhancement of the planning/management capabilities

Although the enrollment ratio of elementary schools reached 51% in 2000, which achieved the ESDP objective, that of secondary schools remained low at 10.3%. A distinct disparity still exists in enrollment ratio between urban and local regions. While the rate is close to 100% in urbanized Addis Ababa District and Harar Region, that in underdeveloped Afar and Somali Regions are only around 10%.

To rectify the situation, a decentralization policy was adopted to delegate a substantial part of authority concerning the implementation of elementary and secondary education to regional governments. Each Regional Education Bureau (REB), according to new curricula,

is now developing their own textbooks, teachers' guidelines, syllabi, and other educational materials. In addition, the elementary/secondary education system that consisted of the Elementary Course (1st to 6th grade), the First Secondary Course (7th to 8th grade), and the Latter Secondary Course (9th to 12th grade) was changed to a new system comprised of the Elementary Course (first cycle: 1st to 4th, second cycle: 5th to 8th), the First Secondary Course (9th to 10th), and the Latter Secondary Course (11th to 12th). Under this system, the Elementary Course given in the first eight years is taught in local languages.

In Ethiopian schools, radio and TV programs are widely used to supplement a lack of textbooks and other educational materials. Although unified programs used to be broadcast nationwide under the old system, respective regions are now trying to produce and broadcast their own radio/TV programs in their local languages incorporating their unique culture and customs in order to enhance the effectiveness of education.

Educational radio programs are also widely used for literacy education for adults, as well as for correspondence courses for teachers' training that are now authorized to issue official teacher's licenses of elementary and secondary education.

At present, only Educational Media Agency (EMA) and six Regional Education Bureaus (REB) are adequately equipped to produce and broadcast educational programs with the studios, but they are not enough to cover the entire nation.

Currently, the production staff of REBs without studio facilities travel to EMA to rent their studios to produce their programs. The EMA studios, however, are almost fully occupied to produce EMA's own programs, leaving only limited time slots for other regions. In addition, the language and cultural barriers create communication problems between the staff of EMA and REBs, resulting in inefficient production and low-quality programs.

Under these circumstances, the Ethiopian government, in an effort to strengthen the production and broadcasting of educational programs in local languages at respective regions for the improvement of the access to and the quality, equality, and efficiency of education, requested the government of Japan to implement a grant aid project for the consolidation of radio and TV educational program studios.

In response to this request, the Japanese government dispatched a preliminary study team

in May 2000 to identify the background and the appropriateness of the proposed project. Subsequently, the Basic Design Study Team on the Project for the Consolidation of Educational Television and Radio Recording Studios was dispatched for a 40-day period from July 16 to August 24, 2001 to conduct a survey to verify the appropriateness of the project, determine its optimum scale (and necessary contents), and draft a basic design.

It was confirmed between the Ethiopian side and the Japanese side at the preliminary study that the following works should be carried out by the Ethiopian side for implementing the project.

- ① Preparation of studio building at each site for the installation of procured equipment
- ② Securing of the transmitting facilities to broadcast produced programs

The site survey reveals that the following 3 project sites among 10 sites have already completed the works to be done by the Ethiopian side.

Radio Studio

- ① EMA Radio Studio
- ② Gambella Radio Studio

TV Studio

- ③ EMA TV Studio

With regard to the remaining 7 project sites (Afar, Oromia, SNNP, Harar, Addis Ababa and Dire Dawa), it is absolutely indispensable for the implementation of the project that the works mentioned above should be carried out by the Ethiopian side.

The Ethiopian Ministry of Education will be responsible for the overall supervision of the project, and the Educational Media Agency (EMA) and the Regional Education Bureaus (REB) will be in charge of the execution of the project.

Since the Ethiopian side has already made sufficient appropriations and established necessary systems for the project implementation, the project will be operated and maintained smoothly after its implementation.

The following effects and benefits are expected on the implementation of this project.

(1) Direct Effects

- Population to Benefit

Elementary school pupils	1,241,265
Secondary school students	687,633
Teachers	34,931
General listeners/viewers	13,019
Total	1,976,848

- Expected Benefits

Each region will be able to produce an increased number of educational programs using their own local languages.

Project sites	No. of programs before the Project	No. of programs after the Project	No. of programs to increase
EMA Radio Studio	460	990	530
EMA TV Studio	80	120	40
Afar Region Semera Radio Studio	84 (max.)	240	156
Oromia Region Alemaya Radio Studio	None produced in the past	336	336
SNNP Region Mizan Teferi Radio Studio	None produced in the past	336	336
Gambella Region Gambella Radio Studio	168 (max.)	336	168
Harare Region Harare Radio Studio	168 (max.)	246	78
Addis Ababa Radio Studio	168 (max.)	450	282
Dire Dawa Region Dire Dawa Radio Studio	168 (max.)	336	168
Tigray Region Mekelle TV Studio	None produced in the past	20	20
Total No. of programs	1,296	3,410	2,114

(2) Indirect Effects

- ① Access to education will be improved in local areas, and educational disparity between the urban and local regions will be mitigated.
- ② The overall quality of education will be improved.
- ③ The enrollment ratios of elementary and junior high schools will increase.
- ④ Education for girls will be ensured.

This project will be carried out even more smoothly and effectively provided that:

- Transmission facilities to broadcast educational programs are expanded and upgraded, and
- A sufficient number of radio and TV sets are provided for each elementary and secondary school.

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Abbreviations

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Chapter 1

Background of the Project

Chapter 1 Background of the Project

1-1 Background of the Project

Ethiopia's human poverty index (HPI) ranks 89th, and its human development index (HDI) ranks 172nd among 174 nations. It is one of the least progressed nations in human development not only among Sub-Saharan countries but also compared to the world standards. The elementary school enrollment ratio of Ethiopia is only 51% in 2000, and there still exists large disparity between male and female enrollments (60.9% for male and 40.7% for female).

Ethiopia is comprised of diverse ethnic tribes. While Amharic being the country's official language, elementary education is conducted in ethnic languages, which, along with other complicated factors, is hindering the improvement of various educational indexes.

As an effective measure to remove these obstacles, a number of donor organizations took notice of distance education and have been extending assistance to various fields of distance education from elementary to higher education, including the training of teaching staff and administrators.

The history of distance education in Ethiopia dates back to the Pilot Radio Literacy Program in 1964. Since then, the Ethiopian schools have been using widely TVs and radios to supplement the lack of textbooks and other educational materials. Unified programs used to be produced and broadcasted nationwide. However, as elementary schools began teaching in local languages according to their respective curricula, each region is now trying to make and air their own educational TV and radio programs in local languages that incorporate their own cultures and customs to enhance the effectiveness of education.

Educational radio programs are also widely used for adult literacy education, as well as correspondence courses for training teachers, which are now authorized to issue official teacher's licenses in elementary and secondary education.

However, only the studios of Educational Media Agency (EMA) and six studios in Regional Education Bureaus (REB) are currently equipped to produce and broadcast educational programs, which are not sufficient to cover the entire country.

To cope with these situations, the government of the Federal Democratic Republic of Ethiopia (hereinafter referred to as “the Ethiopian government”) requested the government of Japan to extend a grant aid for consolidation of educational TV and radio program production equipment for the central and regional TV and radio studios to enable them to produce and broadcast their own educational programs in their local languages. However, as some portions of the request were unclear, the Japanese government dispatched a preliminary study team to Ethiopia in May 2000 to verify the appropriateness for grant aid and to identify the optimum scale of the proposed project.

The importance of distance education is stressed in ESDP's Action Plan. It states the government's intention to further promote and enhance distance education, as it i) complements face-to-face education, and ii) provides learning opportunities and access for dropouts, youths, and adults. Distance education is also expected to play a central role in providing teachers' training, literacy education, life-long education, female education, and educational services to remote areas. The top priority area of EDSP is elementary education, which takes up 60% of the country's entire educational budget. Combined with secondary education, this segment accounts for more than 70% of the total educational budget. Considering that distance education directly supports and supplements elementary and secondary education, its position is extremely important.

1-2 Contents of the Project

The official request for the Project for the Consolidation of Educational Television and Radio Recording Studios was made by the Ethiopian government in December 1997.

Project sites are the EMA in Addis Ababa and eight of Regional Education Bureaus, in which radio and TV equipment to produce educational programs will be installed. The equipment was requested for the following sites:

- (1) Educational Radio Program Production Equipment for:
- Educational Media Agency (EMA) Radio Studio 1 set
 - Afar Regional Education Bureau Semera Radio Studio 1 set
 - Oromia Regional Education Bureau Alemaya Radio Studio 1 set
 - SNNP Regional Education Bureau Mizan Teferi Radio Studio 1 set

- Gambella Regional Education Bureau Gambella Radio Studio 1 set
- Harar Regional Education Bureau Harare Radio Studio 1 set
- Addis Ababa Regional Education Bureau Addis Ababa Radio Studio 1 set
- Dire Dawa Regional Education Bureau Dire Dawa Radio Studio 1 set

(2) Educational TV Program Production Equipment for:

- Educational Media Agency (EMA) TV Studio 1 set
- Tigray Education Bureau Mekelle TV Studio 1 set

After the discussions during the preliminary study in May 2000, it was decided to exclude the Assosa Radio Studio in Benishangul Region from the project, because Benishangul Region opted for alternative equipment procurement plan outside of Japan's Grant Aid. Furthermore, Alemaya's site in Oromia Region was newly requested in place of Assosa's site.