

**BASIC DESIGN STUDY REPORT**  
**ON**  
**THE PROJECT FOR IMPROVEMENT OF RURAL**  
**LIVING CONDITION IN NAM DAN DISTRICT**  
**IN NGHE AN PROVINCE**  
**IN**  
**SOCIALIST REPUBLIC OF VIET NAM**

**FEBRUARY 2003**

**JAPAN INTERNATIONAL COOPERATION AGENCY**  
**TAIYO CONSULTANTS CO., LTD**  
**PACIFIC CONSULTANTS INTERNATIONAL CO., LTD**

## PREFACE

In response to a request from the Government of Socialist Republic of Viet Nam, the Government of Japan decided to conduct a basic design study on the Project for Improvement of Rural Living Condition in Nam Dan District in Nghe An Province and entrusted the study to the Japan International Cooperation Agency (JICA).

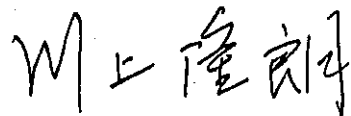
JICA sent to Viet Nam a study team from July 22 to August 30, 2002.

The team held discussions with the officials concerned of the Government of Viet Nam, 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 Viet Nam 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 Socialist Republic of Viet Nam for their close cooperation extended to the teams.

February 2003



---

Takao Kawakami

President

Japan International Cooperation Agency

February 2003

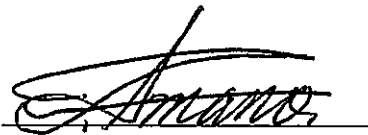
Letter of Transmittal

We are pleased to submit to you the basic design study report on the Project for Improvement of Rural Living Condition in Nam Dan District in Nghe An Province in Socialist Republic of Viet Nam.

This study was conducted by Taiyo Consultants Co., Ltd., under a contract to JICA, during the period from July 2002 to August 2002. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Viet Nam 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.

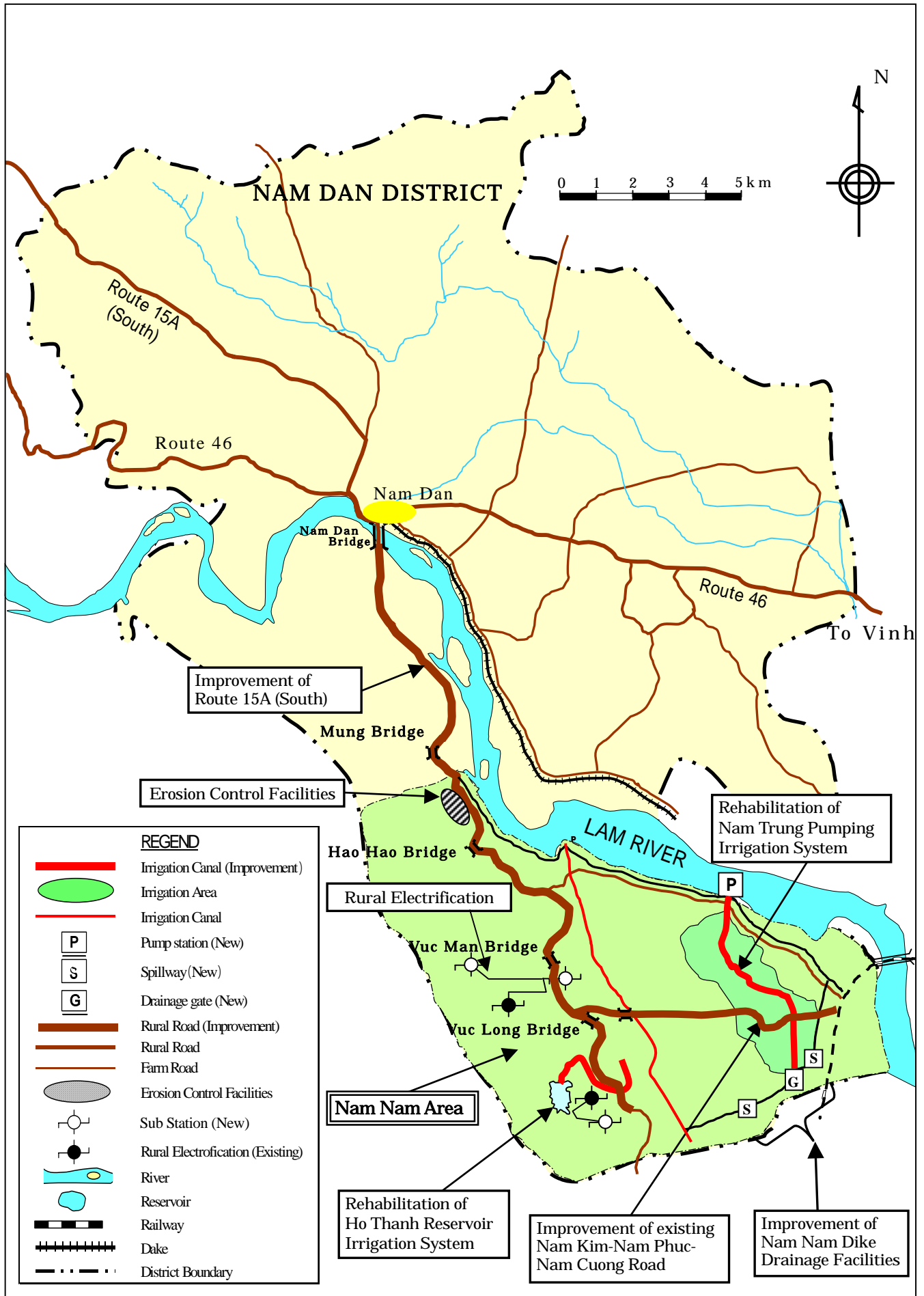
Very truly yours.



Tsuneo AMANO

Project manager,  
Basic design study team on  
the Project for Improvement of Rural  
Living Condition in Nam Dan District in  
Nghe An Province

The Joint Venture between  
Taiyo Consultants Co., Ltd. and  
Pacific Consultants International Co., Ltd.



**LOCATION MAP**

# PERSPECTIVE



PUMP STATION



MAIN CANAL



NATIONAL ROAD 15A



BRIDGE

## ABBREVIATION

B/D	Basic Design
CPO	Central Project Office
D/D	Detailed Design
DARD	Department of Agriculture and Rural Development
DOT	Department of Transportation
E/N	Exchange of Notes
F/S	Feasibility Study
GOV	Government of Viet Nam
HWL	High Water Level
JICA	Japan International Cooperation Agency
KPC Road	Nam Kim - Nam Phuc - Nam Cuong Road
LAB	Land Acquisition Board
LWL	Low Water Level
MARD	Ministry of Agriculture and Rural Development
MPI	Ministry of Planning and Investment
NR15A	National Road 15A
ODA	Official Development Assistance
O&M	Operation and Maintenance
PMB	Project Management Board
S/V	Supervision
S/W	Scope of Works
VND	Viet Nam Dong
WB	World Bank

**BASIC DESIGN STUDY REPORT**  
**ON**  
**THE PROJECT FOR IMPROVEMENT OF RURAL**  
**LIVING CONDITION IN NAM DAN DISTRICT**  
**IN NGHE AN PROVINCE**  
**IN**  
**SOCIALIST REPUBLIC OF VIET NAM**

**TABLE OF CONTENTS**

Preface	
Letter of Transmittal	
Location map / Perspective	
List of Figures & Tables	
Abbreviation	
Chapter 1. Background of the Project .....	1-1
Chapter 2. Contents of the Project	
2-1 Basic Concept of the Project .....	2-1
2-1-1 Overall Goal and Project Purpose .....	2-1
2-1-2 Basic Concept of the Project .....	2-1
2-2 Basic Design of the Requested Japanese Assistance .....	2-3
2-2-1 Design Policy .....	2-3
2-2-2 Basic Plan .....	2-11
2-2-3 Basic Design Drawing .....	2-76
2-2-4 Implementation Plan .....	2-79
2-3 Obligation of Recipient Country .....	2-87
2-4 Project Operation Plan .....	2-89
2-4-1 Operation and Maintenance of Nam Trung Pumping Irrigation System .....	2-89
2-4-2 Operation and Maintenance of Ho Thanh Reservoir Irrigation System .....	2-90
2-4-3 Maintenance of National Route 15A .....	2-90
2-4-4 Maintenance of Nam Kim-Nam Phuc-Nam Coug Road .....	2-90
2-4-5 Maintenance of Rural Electrification Facility .....	2-91
2-4-6 Operation and Maintenance Cost .....	2-92
Chapter 3. Project Evaluation and Recommendations	
3-1 Project Effect .....	3-1
3-2 Recommendations .....	3-3
Basic Design Drawing	
Appendices	
1. Member List of the Study Team .....	A-1
2. Study Schedule .....	A-2
3. List of Parties Concerned in the Recipient Country .....	A-4
4. Minutes of Discussion .....	A-7
5. Cost Estimation Borne by the Recipient Country .....	A-33