



Intake Box of Existing Level-2 System



Reservoir Tank of Existing Level-2 System



Use of Existing Public Faucet



Existing Faucet



Spring Water for Proposed Iba System



Spring Water for Proposed Banban System

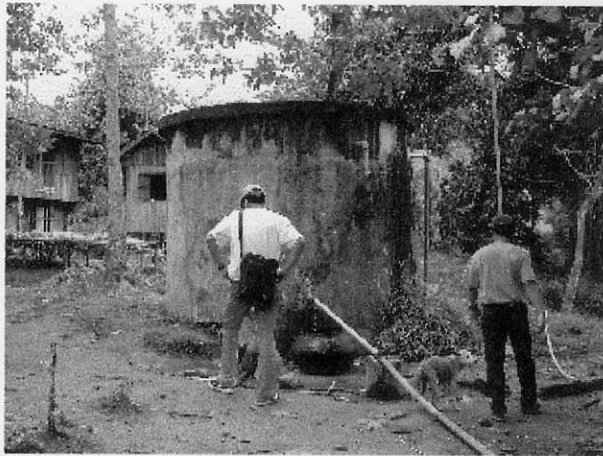
Photo-7 Rural Water Supply in Marangog Area



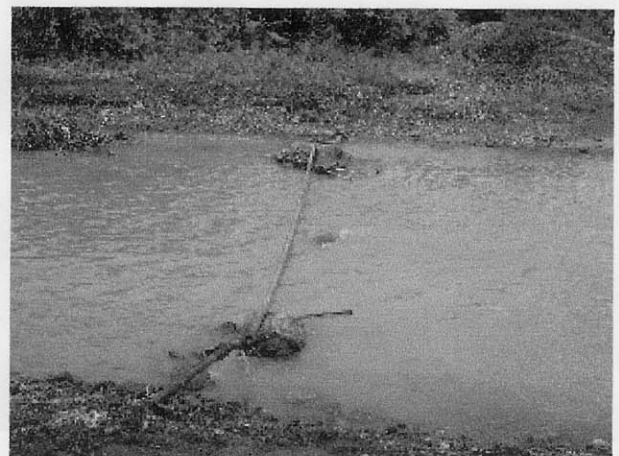
Reservoir Tank of Existing Level-2 System



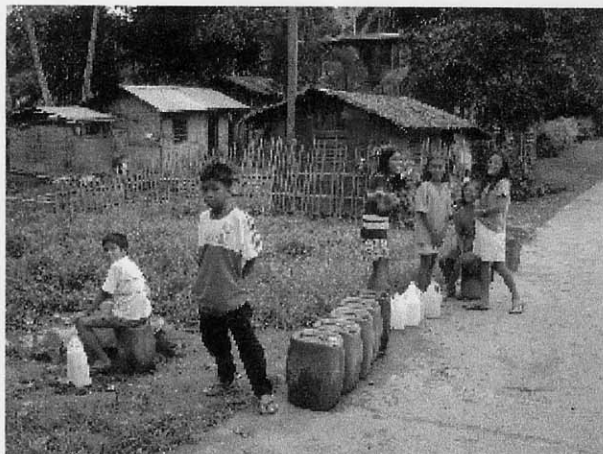
Existing Faucet(Dalacutan Area)



Existing Reservoir Tank(Silae Area)



River Crossing of Supply Pipe(Silae Area)



Existing Faucet(Silae Area)



Spring Water for Proposed Silae System

Photo-8 Rural Water Supply in Silae-Dalacutan Area

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Abbreviations

ADB	: Asian Development Bank
ARC	: Agrarian Reform Community
ARISP	: Agrarian Reform Infrastructure Support Project
ARSP	: Agrarian Reform Support Project
BARBD	: Bureau of Agrarian Reform Beneficiary Development
BARCs	: Barangay Agrarian Reform Council
BARIE	: Bureau of Agrarian Information and Education
BAS	: Bureau of Agricultural Statistics
BFD	: Bureau of Forest Development
BHN	: Basic Human Needs
BL	: Bureau of Lands
BSWM	: Bureau of Soils and Water Management
CARP	: Comprehensive Agrarian Reform Program
CBP	: Central Bank of the Philippines
CDA	: Cooperative Development Authority
CDF	: Countryside Development Fund
CENRO	: Community Environment and Natural Resources Office
CIDA	: Canadian International Development Authority
CVIARC	: Central Visayas Integrated Agricultural Research Center
DA	: Department of Agriculture
DAR	: Department of Agrarian Reform
DENR	: Department of Environment and Natural Resources
DFA	: Department of Foreign Affairs
DILG	: Department of Interior and Local Government
DOF	: Department of Finance
DOH	: Department of Health
DOLE	: Department of Labor and Employment
DOST	: Department of Science and Technology
DPWH	: Department of Public Works and Highways
DSWD	: Department of Social Welfare and Development
DTI	: Department of Trade and Industry
ECC	: Executive Coordination Committee
EIA	: Environment Impact Assessment
EMB	: Environment Management Bureau
EU	: European Union
FAO	: Food and Agriculture Organization
F/S	: Feasibility Study

GDP	: Gross Domestic Product
IFAD	: International Fund for Agricultural Development
IRA	: Internal Revenue Allotment
JBIC	: Japan Bank for International Cooperation
LBP	: Land Bank of Philippines
MINSSADP	: Mindanao Sustainable Settlement Area Development Project
NIA	: National Irrigation Administration
NOMIARC	: Northern Mindanao Integrated Agricultural Research Center
PARO	: Provincial Agrarian Reform Officer
PCA	: Philippines Coconut Authority
PDMS /FAPsO	: Project Development & Management Staff / Foreign Assisted Projects Office
PENRO	: Provincial Environment and Natural Resources Office
PHILRICE	:Philippines Rice Research Institute
PPDO	: Provincial Planning and Development Office
PPMO	: Provincial Project Management Office
RDC	: Regional Development Council
RIARC	: Regional Integrated Agricultural Research Center
SUFMPC	: Silae United Farmers Multipurpose Cooperative
UN	: United Nations
UNDP	: United Nations Development Program

Unit of Measurements

mm	: millimeter
cm	: centimeter
m	: meter
km	: kilometer
sq.m	: square meter
sq.km	: square kilometer
ha	: hectare
l. lit	: liter
cu.m	: cubic meter
MCM	: million cubic meter
ppm	: parts per million
pH	: potential of hydrogen
EC	: electric meter
g	: gram
kg	: kilogram
KWH	: Kilowatt per hour
t,ton	: metric ton
sec.	: second
min.	: minute
hr.	: hour
ave.	: average
min.	: minimum
max	: maximum
%	: percent
No.	: number
°C	: degree centigrade
ET	: eavapo-transpiration
N	: nitrogen
P	: phospahte
K	: potassium
Peso	: Philippine peso
US\$: US Dollar = peso(2000)

CHAPTER 1 BACKGROUND OF THE PROJECT

For support CARP beneficiaries, a different approach is required to develop ARCs in the marginal lands. However, any development technique is no available in the Philippines regarding to ARC development in the marginal lands. Under the circumstance, in 1994 the Government of the Philippines (GOP) made a request for the Government of Japan (GOJ) on a Feasibility Study of Development of Agrarian Reform Communities in marginal areas, twelve sites of ARC , each representative site by region. The Japan International Cooperation Agency (JICA) was entrusted to conduct the Feasibility Study for typical four sites of ARC(Sappaac, Cofcaville,Marangog and Silae-Dalacutan areas). Based on the result of the feasibility study, in November 1998, the GOP requested the JOP for grant aid for the Project on Agrarian Reform Communities Development in the four of marginal. Finally the Government of Japan has concluded to conduct a Basic Design Study for two sites, out of the four sites, Marangog area in Hilongos municipality, Leyte province and Silae area both in Malaybalay and Cabanglasan municipalities, Bukidnon province areas to produce the showcases for concerned areas. The study areas have area within 300ha, which are designated by DAR in parts of ARC area.

The main components of the Project for two site in the original request include the facilities and equipments / materials to enhance land productivity, stabilize agricultural production and upgrade the rural life, which include (1) access roads and farm roads (2) irrigation facilities (3) drainage facilities (4) post harvest facilities (5) rural water supply systems (6) multi purpose meeting hall (7) rural electrification (8) demonstration farms and livestock and poultry demonstration facilities (9) equipment and materials(farm machinery and female carabao for dispersal).