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Annual Report

2070/71(2013/14)



Government of Nepal

Nepal Agricultural Research Council

Coffee Research Program

Baletaksar-1, Bhandaridanda Gulmi, Nepal

2014



Coffee seedling transplanting in polybag



Ipil-Ipil seedlings grown in nursery for temporary shade for coffee



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Annual Report

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Government of Nepal
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Coffee Research Program



Baletaksar-1, Bhandaridanda Gulmi, Nepal

2014

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Coffee Research Program (CRP)

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Cover Page Photo:

Coffee seedling growing at CRP, Baletaksar, Gulmi.

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FOREWORD

The manifest purpose of this preparation is to let know all the authenticated information to the agricultural scientists and users at a glance. This reports explains the, coffee research program establishment and coffee research activities committed by Coffee Research Program (CRP) during 2013/2014. CRP is the newly established commodity research program constituted by Nepal Agricultural Research Council (NARC). CRP is sanctioned to undertake research activities in coffee technology development. CRP will move functionally further in following years with the establishment of research facilities and competent human resources. CRP is envisioned to compete the demand for research and technologies generation in coffee research in prolong.

I am in enormous relish to publish the first Annual Report of CRP. This is an outcome of the sincere dedication and profound input of all the scientific, technical and administrative staffs of CRP, Baletaksar Gulmi. I sincerely appraise the cooperation, help and group effort of the CRP team. I am beholden to Mr. Rukmagat Pathak (Technical Officer) for his hard work to put this report into existence. I would extend my sincere gratitude to NARC for making it possible. All the serving hands are duly avowed.

Eventually, I hope the exploration findings and information presented here are useful and worthy to get inspired in achieving many more in forthcoming years. Thanks.

Krishna Bahadur Thapa
Coordinator
Coffee Research Program (CRP)
Baletaksar-1, Bhandaridanda, Gulmi

सुचना

मिति : २०७०/२०७१

Real time Basis मा रासायनिक मलको मौज्जात र तरकारीहरुको थोक तथा खुद्रा मुल्यको जानकारी लिन सकिने बारे ।

कृषि विकास मन्त्रालयले आधुनिक सुचना प्रविधिको उपयोग गरी देशभर कृषि सामग्री कम्पनी अन्तर्गत डिपोहरुमा भएका मल बिक्रि तथा मौज्जात विवरण र विभिन्न कृषि थोक बजारहरुमा कायम भएका तरकारीहरुको थोक तथा खुद्रा मुल्य real time basis मा Online मार्फत् सम्बन्धित सबैले जानकारी लिन सकिने गरी व्यवस्था मिलाइएको छ । मल बिक्री तथा मौज्जात विवरण हेर्न सर्वसाधारणले aicl.flsoft.com.np मा log on गरी Fertilizer sale and stock मा click गर्नुपर्ने छ भने तरकारीहरुको विभिन्न थोक तथा खुद्रा मुल्य हेर्न agribiz.gov.np नामको web site मा गई market information of selected wholesale market मा click गरी आएको डाइलग बक्समा all market price को button मा click गरेपछि सम्पूर्ण मुल्यहरु हेर्न सकिने छ ।

यस सुचना प्रविधिबाट सम्बन्धित सबैले Real Time Basis मा महत्वपूर्ण जानकारी हासिल गर्न सक्नेछन् । मन्त्रालयले अझ यस प्रविधिलाई कृषक मैत्री बनाउन SMS मार्फत् पनि जानकारी लिन सकिने गरी व्यवस्था मिलाउन लागिएको व्यहोरा समेत अनुरोध गर्दछु ।

प्रभाकर पाठक
प्रवक्ता

ABBREVIATIONS

ARS	Agriculture Research Station
B.S.	Bikram Savat
CBO	Community Based Organization
CCU	Coffee Cooperative Union
CDO	Chief District Officer
CoPP	Coffee Promotion Project
CRP	Coffee Research Program
CWSP	Coffee White Stem Borer
DCPA	District Coffee Producer's Association
DDC	District Development Committee
E	East
FY	Fiscal year
FYM	Farm Yard Manure
G.I.	Galvanized Iron
Hort.	Horticulture
LDO	Local Development Officer
LISP	Local Initiatives Support Program
m	Meter
Msl	Mean Sea Level
N	North
NA	Not Available
NARC	Nepal Agricultural Research Council
NCPA	Nepal Coffee Producer's Association
NeCCo	Nepal Coffee Company
NGO	Non Government Organization
RARS	Regional Agriculture Research Station
RATWG	Regional Agriculture Technical Working Group
S-3	Senior Scientist (Level 3)
SSMP	Sustainable Soil Management Program
T-6	Technical Officer (Level 6)
VDC	Village Development Committee

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संक्षिप्त वार्षिक प्रतिवेदन

नेपाल सरकार, नेपाल कृषि अनुसन्धान परिषद अन्तरगत कफी अनुसन्धान कार्यक्रम, आ.व. २०७०/२०७१ सालमा स्थापित भएको कफी सम्बन्धी अनुसन्धान गर्ने बस्तुगत अनुसन्धान कार्यक्रम हो। यस आ.व. मा सम्पन्न गरिएका क्रियाकलापहरूमध्ये धेरैजसो क्रियाकलापहरू स्थापना र पूर्वाधार विकाससँग सम्बन्धित रहेका छन्। कफी सम्बन्धी अनुसन्धानका क्रियाकलापहरूको सुरुवातको रूपमा कफीका विभिन्न जातहरू सङ्कलन, कफी विरुवा उत्पादनको लागि नर्सरी स्थापना, कफी बगैँचा स्थापना र कफीको जातिय परीक्षण स्थापना सम्बन्धी कार्यहरू सम्पन्न गरिएको छ।

कफीका १९ वटा जातहरूको बीउ संकलन गरी आगामी समयका लागि रोज तयार हुने गरी कफीको नर्सरी स्थापना गरिएको छ। यसबाट करिब १५ हजार कफीका विरुवाहरू आगामी वर्ष रोपणका लागि योग्य हुनेछन्। यि विभिन्न कफीका जातहरूलाई सरकारी, गैरसरकारी कार्यालयहरू र कृषकको माग अनुसार व्यवसायीक उत्पादन र अनुसन्धान कार्यका लागि प्रयोगमा ल्याइनेछन्।

यस आ.व. मा कफी अनुसन्धान कार्यक्रम स्थलमा कफीका विभिन्न जातहरूको विरुवाहरू रोपण गरी कफी बगैँचा स्थापना गरिएको छ। यस कफी अनुसन्धान कार्यक्रमको औपचारिक सुरुवात नेपाल सरकारका मुख्य सचिव श्रीमान् लीलामणि पौड्यालज्यूबाट २०७१ साल बैशाख ३ गते कफीको विरुवा रोपण गरी सुरु गरिएको थियो। यसै गरी उक्त दिन नेपाल कृषि अनुसन्धान परिषद्का कार्यकारी निर्देशक डा. दिल बहादुर गुरुङ्गज्यू, वाली तथा बागवानी निर्देशक श्री यज्ञ प्रसाद गिरी, गुल्मी जिल्लाका प्रमुख जिल्ला अधिकारी श्री कमलराज ढकाल स्थानीय विकास अधिकारी श्री हरिप्रसाद ज्ञवाली नेपाल कृषि अनुसन्धान परिषद्का बरिष्ठ बैज्ञानिकहरू, गुल्मी जिल्लाका विभिन्न कार्यालयका कार्यालय प्रमुखहरू, स्थानीय राजनीतिक दलका व्यक्तित्वहरूबाट कफी विरुवा रोपण गरी यस स्थलमा कफी बगैँचा स्थापना गरिएको छ। उक्त बगैँचामा विभिन्न कफीका जातहरूका विरुवाहरू रोपण गरी कफीको फिल्ड जिन बैकको रूपमा आगामी वर्षमा विकास गर्दै लगिने छ।

कफीका पाँच प्रकारका जातहरू (सेलेक्सन-१०, एलो कटुरा, गुल्मी स्थानीय, स्याङ्जा स्पेसियल र छेत्रदीप) को ३०० विरुवा रोपण गरी कफी बगैँचा स्थापना गरिएको छ। पाँच प्रकारका प्राङ्गारिक मलहरू (गाई वस्तुको मल, बाखाको मल, तोरीको पिना, गड्यौली मल र कुखुराको मल)को यी कफीका जातहरूमा प्रभाव अध्ययनका लागि परीक्षण सुरु गरिएको छ।

कफी विरुवाको वृद्धि विकास र उत्पादन वृद्धिका लागि कफी विरुवालाई छहारी आवश्यक पर्दछ। कफीलाई अस्थायी छहारी प्रदान गर्न कफी बगैँचामा रहर रोपण गरिएको छ।

आ.व. २०७०/२०७१ मा कफी अनुसन्धान कार्यको लागि पूर्वाधार सुबिधा विकासका केहि कार्यहरू सम्पन्न भएका छन्। १ वटा ३ कोठे चौकिदार भवन निर्माण गरी तत्कालका लागि कार्यालय प्रयोजनका लागि प्रयोग गरिएको छ। सिंचाई र खानेपानी सुबिधाको लागि ८१० मीटर २ इन्चको जि.आई. पाईप र २ वटा पानी ट्याँकी निर्माण कार्य सम्पन्न भई प्रयोगमा

आएको छ । ३७० मिटर लामो चेन लिंक फेन्स निर्माण कार्य सम्पन्न गरिएको छ । ६ वटा गह्रा सुधार कार्य सम्पन्न गरिएको र २३८ घन मीटर ढुङ्गाको जाली भरी भिरालो जमिनमा ग्याबियन बाल लगाउने कार्य सम्पन्न गरिएको छ । कार्यक्रम स्थललाई प्रतिनिधित्व हुने गरी माटोको उर्वराशक्ति सम्बन्धी प्रारम्भिक अध्ययनको लागि २७० वटा माटोका नमुनाहरू सँकलन गरी विश्लेषणको लागि माटो विज्ञान महाशाखा, खुमलटारमा पठाईएको छ ।

EXECUTIVE SUMMARY

Coffee Research Program (CRP) is a recently established commodity research program in nepal under Nepal Agricultural Research Council (NARC). Most of the activities in the fiscal year 2070/2071 were focused for infrastructure facility development. However, the research activities were initiated by coffee germ plasma collection, nursery establishment and coffee varietal and manurial trial establishment.

Coffee nursery was established in order to produce quality coffee seedlings. More than fifteen thousand coffee seedlings of 19 different varieties and local collections are growing in the nursery which will be used for research purposes in the following years. The coffee seedlings will also be distributed as per the demand of government offices, non government organizations and to coffee farmers.

Different varieties of coffee collected from ARS (Hort.), Malepatan, Pokhara and Gulmi, planted in a small block within CRP surrounding in 200 m² area in opening day of CRP on 03 Baisakh, 2071 B.S. Coffee plantation will be continued in this block in following year as a unit of germplasma maintenance of coffee.

Coffee orchard was established by planting 300 seedlings of five different varieties of coffee namely 'Chhetradeep', 'Gulmi Local', 'Selection-10', 'Syangja Special' and 'Yellow Caturra' in four ropani of land facing east slope. The orchard can be used for conducting research activities on various aspects of coffee related problems in following years. Five types of different organic manures (FYM, goat manure, mustard oil cake, poultry manure and vermi-compost) were also applied as trial on manurial effect on coffee.

Coffee plants require shade for satisfactory growth and for higher yield. As temporary shade to coffee, pigeon pea was planted in the newly established coffee orchard.

Infrastructure facilities are essential to carry out research activities. The initial works have been accomplished as infrastructure facility development at CRP site in the fiscal year 2070/2071 B.S. A shed/watchman house was constructed which has been used as office building of CRP until the new office building constructed. A irrigation pipeline (2" G. I. pipe) of 810 meter length with two reservoir tanks were established which has provided facility for drinking water and irrigation purpose in CRP site. Similarly 370 meter chain linked fencing work was accomplished which

will work as protection for research site from wild and grazing animals in future. Six terraces and 238 M³ of gabion stone wall were developed which will protect land slide and contribute for land improvement. 270 soil samples were collected and sent to Soil Science Division, Khumaltar to analyze as routine test. This report will provide preliminary soil fertility status of the CRP complex.

1. WORKING CONTEXT

Coffee Research Program(CRP) is a recently established commodity research program of Nepal Agricultural Research Council (NARC) under Government of Nepal. The Coffee Research Program was formally initiated on 3rd Baisakh of 2071 B.S. at Baletaksar Village Development Committee, Ward no-1, in Gulmi district. The coffee was first introduced in Nepal in 1995 B.S by monk Hira Giri at Anapchaur in the same district. Coffee cultivation was extended to other districts from the Gulmi and now it is being one of the potential exportable commodities of Nepal.

Coffee Research Program (CRP) is situated at 850 m asl at Baletaksar VDC Ward no-1 Bhandaridanda in Gulmi district. Agro ecologically the site falls under sub tropical climate having latitude of 27° 56' 17.85" N to 27° 58' 44.87" N and longitude of 83° 25' 29.21" E to 83° 25' 30.20" E. The site has north-south to east-west aspect having gradual to steep slope with clay to sandy loam soil. It is located at six kilometer north from Ratamata connected with rough road to Butwol- Tamghas highway. The most of the land in the site is uncovered except few perennial trees. The nearby market centers are Ridi bazaar at Ruru VDC and baletakshar bazaar at Baletaksar VDC. Tamghas, Tansen and Butwol are the major market centers from the site.

2. INTRODUCTION

2.1 Background

Coffee is emerging as one of the exportable commodities in Nepal. It is grown at altitude ranging from 800m amsl to 1400m amsl in subtropical agro-climatic condition in Nepal. Coffee was introduced in Nepal in 1938 by the Monk Hira Giri when he was back to Aanpchaur, Gulmi from Myanmar. Coffee growing was expanded by the interest of when His Majesty's government imported seeds from India in 1968. The plantation was significantly extended in western region districts after the establishment of Nepal Coffee Company (NeCCo) in 1983 and Coffee Development Center under Department of Agriculture in 1984 at Aanpchaur, Gulmi. In 1993, National Tea and Coffee Development Board established as government apex body under Ministry of Agriculture which facilitated and coordinated on production, marketing and policy related issues. Realizing the coffee production and marketing related problems, scattered coffee producers organized in coffee producer's groups which were facilitated by different non government national and international organizations in Nepal in between 1990 to 2000. Mean while, HELVETAS promoted coffee production through LISP, SSMP and CoPP in western and central region districts which enable coffee producer's for their organizational capacity building, organic coffee practices promotion and marketing coffee in national and international market. Coffee production was initiated to institutionalize when producer's association at district and national level established in Nepal. Nepal Coffee Producers Association (NCPA) at national level and District Coffee Producer's Association (DCPA) at district level supporting to coffee growing farmers for production, marketing and policy level issues.

Although the coffee plantation in recent years has increased having the production area 1760 ha in 2011/12 but the trend of coffee green beans production is decreasing. The figure shows that 418 tones green bean was produced in 2011/12 while it was dropped to 366 tons in 2012/13 (NTCDB, 2013). There are several reasons of decreasing coffee yield in Nepal. There are several constraints out of them damage due to coffee white stem borer (*Xylotrechus quadripes*) was reported as major among the pest damage. Other associated constraints are lack of high yielding coffee cultivars suitable to different agro-climatic (altitude) condition, lack of improved technologies on coffee nursery management, orchard management shade management, and harvesting and post-harvest quality management.

Under these circumstances, realizing the coffee production technology suitable to agro-climatic and socio-economic contexts, Government of Nepal has established

the " Coffee Research Program" at Baletaksar VDC-1 in Gulmi district during the fiscal year 2070/71. The program was initiated with the plantation of coffee seedling by Chief Secretary of Government of Nepal Mr. Lilamani Poudyal on 3rd Baisakh, 2071.

2.2 Goal

Develop improved coffee farming technologies suitable for Nepalese condition through participatory and problem based research.

2.3 Objectives

- To generate improved coffee farming technologies to increase coffee productivity.
- To develop technology on post harvest quality management of coffee.
- To provide need based quality technical services based on cost effectiveness
- To assist in coffee related policy formulation that support for commercial coffee production in Nepal.

2.4 Strategies

- Validation, verification and recommendation of existing coffee related technologies and practices.
- Identification of problems related to coffee production and quality management through participatory review, survey and study.
- Germplasm collection, identification/characterization and maintenance of coffee.
- Survey and surveillance of pest, disease and indigenous natural enemies for technology development.
- Problem based participatory research in coffee.
- Establishment and maintenance of well facilitated laboratory, library and other facilities to carry out research activities in coffee.
- Education and capacity building: For strengthening problems based participatory research in coffee sector, capacity building of coffee researchers, technicians through short and medium term course/training and exposures. Learning sharing will be the major strategy for education and capacity building. Wider dissemination of developed technologies will be done by visits, training and interactions at farmers, technicians and researchers level.
- Explore research opportunities with national and international organization. Establish and support in collaborative researches and extension with alliances of farmers, stakeholders and international organizations.
- Publication: Publication of developed technologies both in Nepali and English

medium, documentation of review papers, audio visuals will be regularly carried out as resources/reference materials for dissemination of technology for coffee promotion. Periodic updates will be done for publication.

2.5 Current thrust areas for research

The Coffee Research Program (CRP) has following major thrusts in coffee research areas in Nepal.

- Development of high yielding coffee varieties.
- Coffee germplasm collection, characterization, evaluation and maintenance.
- Research activities on improved coffee farming technologies for coffee orchard management (training and pruning of coffee and shade trees, moisture, nutrition, organic practices, multi-story coffee orchard management and intercropping)
- Research activities on pre and post harvest quality management of coffee.
- Research activities on coffee white stem borer (CWSB) management which is being severe pest of coffee in Nepal. Study on other pests and diseases of coffee hindering coffee growth, yield and quality of coffee production.
- Identification and recommendation of suitable coffee shade tree species and its management to provide immediate and permanent shade to coffee plants according to different agro-climatic domain of Nepal.
- Organic coffee farming technologies.

2.6 Infrastructure and facilities

By the rigorous efforts and cooperation from District Administration Office, District Development Committee, other district government agencies, CCU, Baletaksar VDC, local political parties, community people and other stakeholders of Gulmi district, the government handed over 100 Ropani land to Coffee Research Program. There are two blocks having each of 50 Ropani land to carry out coffee research activities and operation of offices, laboratories and residential purposes. About 50 ropani of land is located at southern block of the Bhandaridanda (Kitta No. 1160) and the remaining 50 ropani of land situated towards the northern block (Kitta No.1153). The site is surrounded by Khutka khola towards west and by Banstari khola towards east. The Ruru and Thanapati V.D.C. situated towards south, Guandi V.D.C. towards east and Rimuwa VDC towards north from the Bhandaridanda. The CRP site has connected with rough road of Ratamata to Gwadi feeded from the Butwol-Tamghas black topped road. There is year round facility of irrigation

established during the fiscal year 2070/2071 which can be used for irrigating coffee and other crops planted/sown in CRP. There is one shed/watchman house which is being utilized as office building until new office building is constructed.

2.7. Organization structure and human resource.

As Coffee Research Program (CRP) has been newly established by NARC, Government of Nepal, currently there are only two staffs working for the fiscal year 2070/2071 B.S. There were one senior scientist (S-3) and one technical officer (T-6) working in the CRP. However, following human resources have been proposed to approve by NARC, council for CRP operation in following years. The senior scientist worked as CRP coordinator. The detail of human resources has been presented in annex 2.1.

3. RESEARCH HIGHLIGHTS

As the CRP has recently been established, there are no any particular research activities in this year; however coffee plantation was done which can be utilized to conduct various aspects of coffee related research activities in coming years.

3.1. Coffee plantation

Different varieties of coffee collected from ARS (Hort.), Malepatan, Pokhara and Gulmi, planted in a small block within CRP surrounding in 200 m² area in opening day of CRP in Baisakh 03, 2071 B.S. "Coffee Research Program" at Baletaksar-1 Bhandaridanda, Gulmi was formally started by planting coffee seedlings by Mr. Lilamani Paudyal (Chief Secretary of Government of Nepal), Dr. Dil Bahadur Gurung (Executive Director of NARC), Mr. Yagya Prasad Giri (Director, Crops and Horticulture Research, NARC), Mr. Kamal Raj Dhakal (CDO Gulmi), Mr. Hari Prasad Gywali (LDO, DDC Gulmi), NARC senior scientists, senior officials (NARC), district offices representatives of Gulmi, representatives from several political parties and invited guests had planted coffee in the area.

In the south-eastern corner of compound, coffee orchard was established by planting 300 seedlings of five different varieties of coffee namely 'Chhetradeep', 'Gulmi Local', 'Selection-10', 'Syangja Special' and 'Yellow Caturra' in four ropani of land facing east slope. The orchard can be used for conducting research activities on various aspects of coffee related problems in following years. Pigeon pea was planted in the newly planted coffee orchard for the temporary shade provision to coffee.

4. PRODUCTION AND DISTRIBUTION

4.1. Coffee seedlings production

Coffee nursery has been established in order to produce quality coffee seedlings. More than twenty thousand coffee seedlings growing in the nursery will be used in CRP for next year plantation and also be distributed as per the farmer's demand, government, non government and coffee producer's demands.

Three ropani east facing land was allocated at northern corner of south block (Kitta No. 1160) for nursery establishment. Coffee seeds 19 coffee varieties were sown on 19th to 24th Baishakh, 2071 in three types of germinating media. Sand, sand+FYM+soil in 1:2:3 proportion and soil media were used in beds having the size of 15m x 1m x 0.2m for producing tope seedlings. Partial shade was provided

to all beds by provision of roof from bamboo and dried straw. These beds used to irrigate frequently. All the seeds (>70 %) germinated from 20 to 35 days after seed sown. The top coffee seedlings were transplanted in 6"×8" sized poly bag filled with Sand: FYM: Soil in the ratio 1:2:3. and poly bags were arranged in another nursery beds for further growth and development. The details are given in annex 4.1.

5. TECHNOLOGY TRANSFER AND SERVICES

5.1 Services

The technical information regarding improved coffee production was disseminated to 35 farmers who visited Coffee Research Program Gulmi in the year 2070/071 B.S.

5.2 Information through media

The news of establishment of Coffee Research Program Gulmi was published in Kantipur national daily newspaper and in local newspaper published from Gulmi district.

5.3 Visits

77 members representing from farmers, government and non government organizations, community based organization, cooperatives, students visited the Coffee Research Program (CRP) site. They were provided with information regarding the CRP establishment and its initial activities in the year 2070/071 B.S.

6. OTHER ACHIEVEMENTS

Mr. Krishna Bahadur Thapa, senior scientist (S-3) participated in Regional Agriculture Technical Working Group (RATWG) workshop held in Regional Agriculture Research Station (RARS) Lumle on 19 Jestha, 2071. Similarly, there was the participation in third trimester and annual review meeting in RARS Lumle organized on 23rd Shrawon 2071. Mr. Krishna Bahadur Thapa, senior scientist (S-3) and Mr. Rukmagat Pathak, technical officer (T-6) participated and presented progress and lesson learning's of program/activities accomplished in 2070/071 fiscal year by CRP Gulmi.

7. BUDGET AND EXPENDITURE

The total budget allocated for Coffee Research Program in fiscal year 2070/071 B.S was Nrs 1,19,94,002.00 out of which Nrs 1,18,55,629.02 was expended in accomplishment of planned activities. The details of all ocated budget and expenditure are given in Annex 7.1.

8. KEY PROBLEMS

Lack of different disciplinary human resources in the CRP is major problems faced during fiscal year 2070/071 B.S. Still NARC has not approved the multi-disciplinary human resources including administration. Well facilitated laboratories and human resources are pre-requisites for conducting result based research activities. Without, human resources and basic laboratory facilities, research activities to carry out is difficult to operate.

9. WAY FORWARD

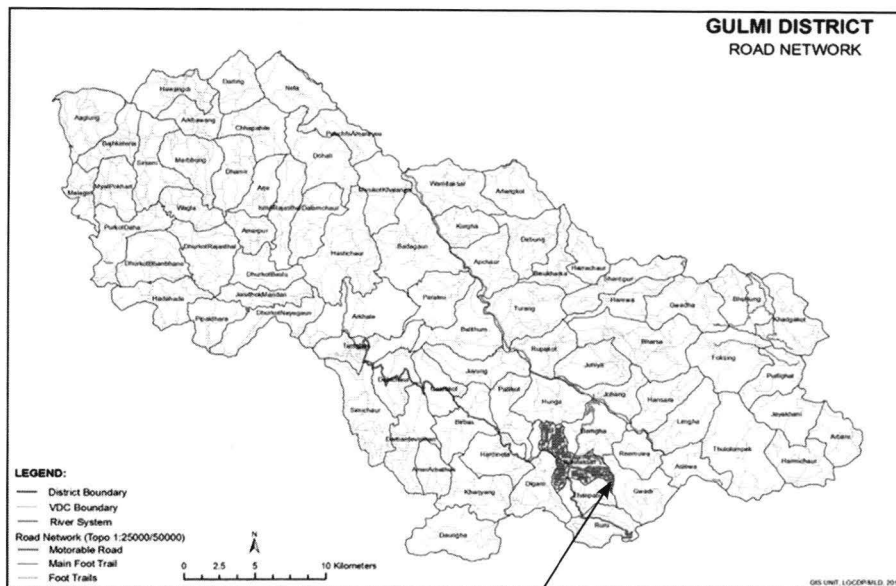
The CRP has undertaken followings as way forward in future/coming years to operate result-oriented research activities:

- There should be provision of multi-disciplinary (Horticulture, Entomology, Pathology, Soil science, Plant breeding and administration) human resources by NARC in following years.
- There should be well facilitated laboratories (Horticulture, Entomology, Pathology, Soil) to support and proceed coffee related research activities.
- Government of Nepal, NARC should allocate sufficient budget for infrastructure development (Office buildings, laboratories, staff quarters, irrigation, shed houses, tools/equipments).
- Exposure of technical staffs working in Coffee Research Program Gulmi at international level for different research courses in coffee. Learning's through exposure in different international coffee research institutes and organization is immediately required for increased staff capacity and conducting result oriented coffee research activities.
- Development of coffee research strategic documents.
- Review of coffee development and researches in Nepal

Annex : 1.1 Map of Command Area FY 2070/71 (2013/14)



Map 1: CRP in Nepal Map



Coffee Research program Site, Baletaksar VDC-1, Bhandaridanda, Gulmi

Map 2 : Location of CRP in Gulmi District Map



Map 3: Location of CRP in Google Earth Map, Encircled with red color are site of CRP, Gulmi

Annex : 2.1 Human Resource in FY 2070/71 (2013/14)

S.N.	Name	Position	Qualification	Specialization/ Working area
1	Krishna Bahadur Thapa	Coordinator	M.Sc. (Soil Science)	Soil Science
2	Rukmagat Pathak	Technical Officer	M Sc. Ag (Horticulture)	Horticulture (Pomology)

Annex: 3.1 Summary Progress of NARC Research Projects and Activities in FY 2070/71 (2013/14)

Project code number	Name of project/activity	Project/ Activity leader	End year	Budget allocated for this year ('000)	Major progress/ achievements
CRP-1	Fencing and farm maintenance at Coffee Research Program, Gulmi	Krishna Bahadur Thapa	2070/2071	2000.00	Entrance gate and 370 meter fence prepared by chain link fixed in iron pole.
CRP-2	Land Development at Coffee Research Program, Gulmi	Krishna Bahadur Thapa	2070/2071	2500.00	238 M ³ of gabion filled with stone at land slumped area along the road site. Undulating land was improved and six terraces improved with the help of JCB
CRP-3	Drinking water and irrigation at Coffee Research Program, Gulmi	Krishna Bahadur Thapa	2070/2071	2000.00	2" G. I. pipe placed from source of water to the program's site which is 810 meters in length. Three water collecting tanks (2.6m x 2.1m x 1.2m) are constructed in the site.
CRP-4	Shed/Watchman house at Coffee Research Program, Gulmi	Krishna Bahadur Thapa	2070/2071	1500.00	One small building roofed by G. I. sheet having three rooms constructed in the site with toilets and bathroom. A cottage roofed by dry hay was prepared in the site for the purpose of immediate official work and used as store room to keep official material

Annex : 4.1 Productions of Coffee Seedlings in FY 2070/71 (2013/14)

S.N.	Commodity/ Product	Variety/ Breed /.....	Type (Breeder/Foundation/ Blood level...)	Unit	Target quantity	Produced quantity
1	Coffee seedlings	19 coffee genotypes	-	No	NA	7000 growing stages

Annex : 5.1 Services Provided in FY 2070/71 (2013/14)

S.N.	Counseling Services Provided	Numbers	Major clients
1	Technical information on coffee cultivation	35	Farmers

Annex: 5.2 Information disseminated through media in FY 2070/71 (2013/14)

S.N.	Information disseminated/Media coverage	Type	Name/ Type of media#	Date/Time
1	Establishment of coffee research program	News print	Kantipur Daily Newspaper	2071/01/04
2	Establishment of coffee research program	News radio	Ruru FM	2071/01/03

Annex : 5.3 Visits of the Office/Station by Farmers, Extension Officials /Technicians, Entrepreneurs, Cooperatives, Farmer Groups, NGO/CBO Officials FY 2070/71 (2013/14)

S.N.	Category	Number	Districts	Area of major interest
1	Farmers	35	Gulmi	Coffee seedlings production and coffee plantation
2	Entrepreneurs	4	Gulmi	Coffee plantation
3	Extension Officials/ Technicians	10	Gulmi, Kaski	Observation of coffee research site
4	NGOs Officials	9	Gulmi, Kathmandu	Coffee nursery, coffee plantation and coffee research site
5	Cooperatives	12	Gulmi	Coffee nursery

Annex : 6.1 Training/Workshop/Seminar Attended by Staff in FY 2070/71 (2013/14)

S.N.	Name of staff	Position	Name of Training / seminar/ workshop	Duration	Place/ Country	Organizer
1	Mr. Krishna Bahadur Thapa	Coordinator	Regional Agriculture Working Group Workshop	1 day	Lumle, Kaski	Regional Agriculture Research Station (RARS) Lumle, Kaski
2	Mr. Krishna Bahadur Thapa	Coordinator	Third Trimester and Annual Review Workshop	1 day	Lumle, Kaski	Regional Agriculture Research Station (RARS) Lumle, Kaski
3	Mr. Rukmagat Pathak	Technical Officer	Third Trimester and Annual Review Workshop	1 day	Lumle, Kaski	Regional Agriculture Research Station (RARS) Lumle, Kaski

Annex : 7.1 Regular Annual Budget and Expenditure Record of FY 2070/71 (2013/14)

Code	Budget Heads	Annual budget	Budget released	Expenses	Balance
	Staff expenses	-	-	-	-
	Administrative budget	220002.00	220002.00	220002.00	-
	Operational budget	1310,000.00	1310,000.00	1310,000.00	-
4183	Fencing and farm maintenance	20,00,000.00	1976004.45	1976004.45	23995.55
43**	Capital expenses				
4310	Land Development Cost	20,00,000.00	1987166.25	1987166.25	12833.75
4321	Drinking water and irrigation	20,00,000.00	1904331.82	1904331.82	95668.18
4321	Shed/watchman house	15,00,000.00	1496687.20	1496687.20	3312.80
4360	Computer & Computer Accessories Cost+Camera	2,30,000.00	2,30,000.00	2,30,000.00	-
	Toilet/Bathroom	2,50,000.00	2,50,000.00	2,50,000.00	-
	Drainage canal	5,00,000.00	497437.30	497437.30	2562.70
4350	Vehicles Cost	1984000.00	1984000.00	1984000.00	-
	Grand Total	11994002.00	11855629.02	11855629.02	138372.98

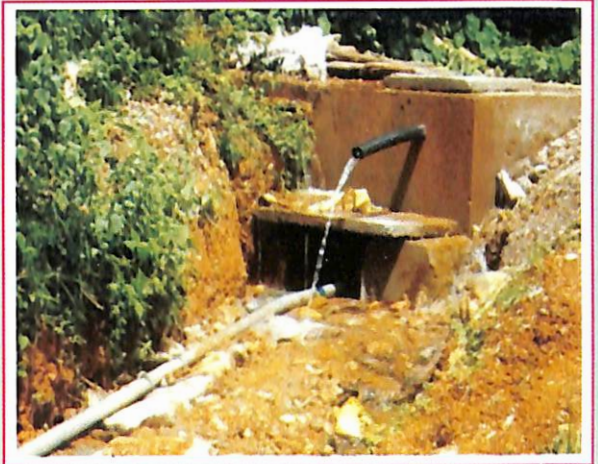
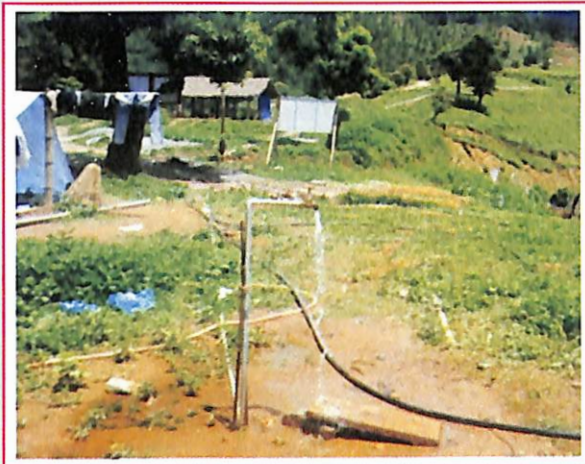
Source: ARS (Hort.), Malepatan, Pokhara-5, Kaski

Note:

- i. Budget for vehicle was expended from Head Office/NARC
- ii. All the budget except for vehicle was expended during the fiscal year (2070/071) from ARS (Hort.), Malepatan, Pokhara-5, Kaski.
- iii. Based on the "Annual Budget" the budget balance shown in the table.



Establishment of Coffee Research Program at Baletaksar-1, Bhandaridanda, Gulmi



Irrigation cum Drinking Water Scheme at CRP, Gulmi



Preparing soil sample



Garrison wall-constructed



Shed/Watchman Building, CRP Gulmi



Coffee Plantation at CRP Site