

International Maize and Wheat Improvement Center

Hill Maize Research Project Phase IV (HMRP IV)

**“Improved Seed for the Rural Poor in the Hills of Nepal:
Fostering Adoption of Improved Maize Technologies to Promote Food Security,
Nutrition, and Economic Growth”**

Yearly Plan of Operation 2013

Submitted to:

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And

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Contact:

Dr. Maria Luz C. George

Head, Program Management Unit

Km. 45, Carretera, Mexico-Veracruz, El Batán, Texcoco, Edo. de Mexico, C.P. 56130 Mexico

Telephone: +52 (595) 9521900; Fax: +52 (595) 9521983

Email: m.george@cgiar.org

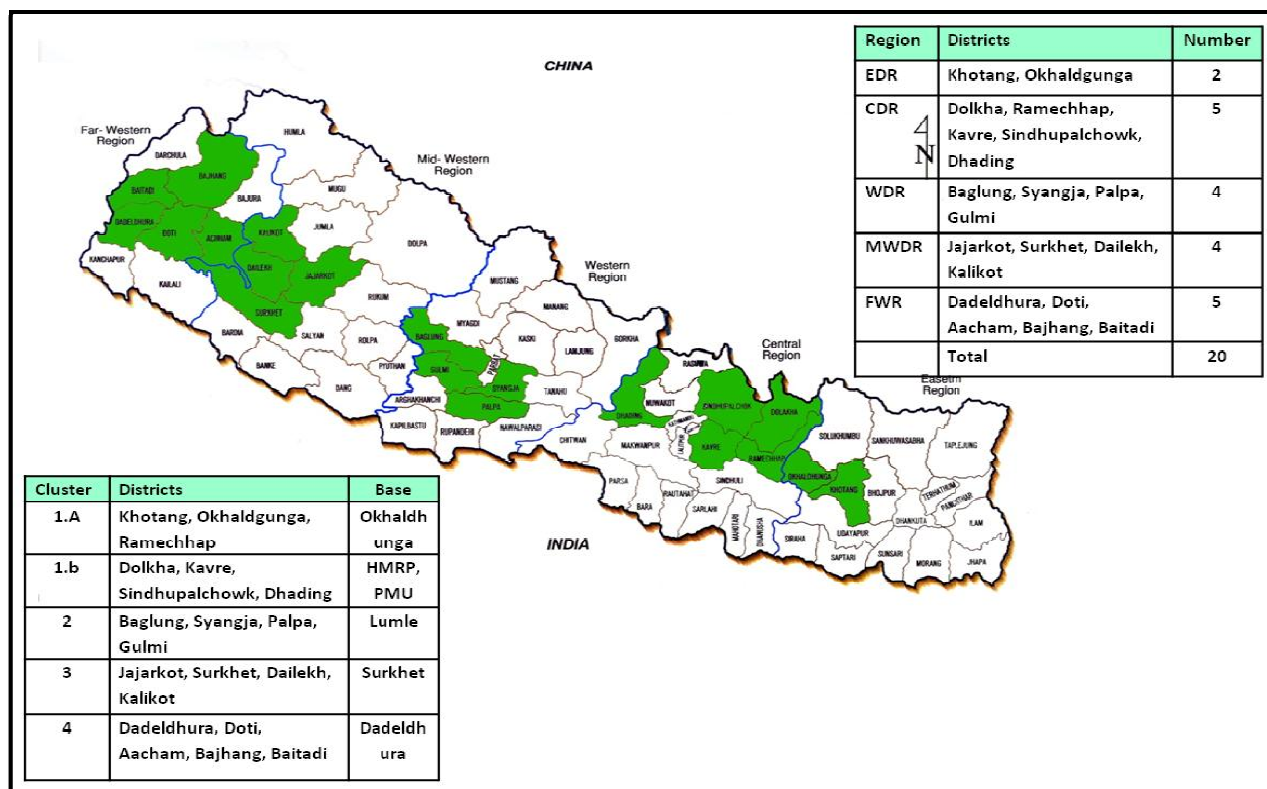
International Maize and Wheat Improvement Center
(CIMMYT Int.)

Prepared by:

CIMMYT - South Asia Regional Office
P.O. Box 5186 Singha Durbar, Kathmandu, Nepal
Tel: +977-1-4219262/ Fax: +977-1-4229804
Email: g.ortiz-ferrara@cgiar.org

National Maize Research Program, NARC
Rampur, Chitwan, Nepal
Mobile: +977-56-581001
Email: nmrprampur2005@yahoo.com

HMRP-IV Project Districts and Clusters



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ABBREVIATIONS

ABTRACO	Agro-Business Trade Promotion Multipurpose Cooperative Ltd
ARS	Agriculture Research Station
AFEC	Agriculture, Forestry, Environment Committee
BCTN	Bahun, Chhetri, Thakuri and Newar
BOG	Basic Operating Guidelines
CAERD	Centre for Agriculture and Environmental Research and Development
CBO	Community-Based Organization
CBS	Community-Based Seed Production
CDD	Crop Development Directorate
Ce-CRED	Centre for Community Resource and Environment Development
CFFT	Coordinated Farmers' Field Trial
CIMMYT	International Maize and Wheat Improvement Centre
CPDD	Communication Publication and Documentation Division
CSP	Community Seed Promoters
DADO	District Agriculture Development Office
DAGs	Disadvantaged Groups
DISSPRO	District Seed Self-sufficiency Programme
DIWO	Development Initiative Welfare Organization
DoA	Department of Agriculture
DOS	Downtrodden Oppressed Society
FAT/IRD	Farmer Acceptance Test/Informal Research and Development
FFA	Fund Flow Analysis
FORWARD	Forum for Rural Welfare and Agricultural Reform for Development
GESI	Gender, Equity and Social Inclusion
GLS	Gray Leaf Spot
GoN	Government of Nepal
HHs	Households
HMRP	Hill Maize Research Project
I/NGO	International Non-Governmental Organization
IPNS	Integrated Plant Nutrient System
KDF	Khotang Development Forum
LIBIRD	Local Initiatives for Biodiversity, Research and Development
MoAD	Ministry of Agriculture Development
NARC	Nepal Agricultural Research Council
NMRP	National Maize Research Programme
NSB	National Seed Board
OMS	Outcome Monitoring Summary
OPV	Open Pollinated Variety
PSCs	Private Seed Companies
PVS	Participatory Varietal Selection
QPM	Quality Protein Maize
RARS	Regional Agriculture Research Station
RAS	Rapti Agriculture-graduate Society
RSTL	Regional Seed Testing Laboratory
SAHAS	Groups of Helping Hands
SDC	Swiss Agency for Development and Cooperation
SEAN	Seed Entrepreneurs' Association of Nepal
SSSC	SEAN Seed Service Center
SRF	Seed Revolving Fund
SGP-C	Small Grants Project-Committee
SQCC	Seed Quality Control Centre
SSMP	Sustainable Soil Management Project
TC/SC	Technical Committee/Steering Committee
TTRI	Technical Training and Research Institute
USAID	United States Agency for International Development
VDC	Village Development Committee
VSP	Vegetable Seed Project
YPO	Yearly Plan of Operation

1. EXECUTIVE SUMMARY

The Hill Maize Research Project (HMRP), initially funded by the Swiss Agency for Development and Cooperation (SDC), began in 1999 with the objective to increase the food security of farm families in the hills by raising the production, productivity and sustainability of maize-based cropping systems. The current phase (HMRP IV, Aug 2010 to July 2014) is jointly funded by the SDC and the United States Agency for International Development (USAID). In the last three phases, HMRP-CIMMYT, in collaboration with NARC, NMRP, DoA, NSB, NGOs and CBOs, contributed to improve food security and livelihoods of the rural hill farmers through the development and release of new and high yielding maize varieties, seed multiplication of farmers-selected varieties, and through the validation and dissemination of key resource conserving technologies for maize based cropping systems.

The goal and focus of the HMRP IV is to improve food security and income of poor and disadvantaged groups (DAGs) in the hill of Nepal by up-scaling and consolidating past project achievements, maximizing impacts through selective intensification of key project activities, and building the collective actions, infrastructures and networks of DoA, NARC, and other stakeholders. The two outcomes of HMRP IV are- (i) Hill maize farmers, especially from poor and disadvantaged groups, adopt new and profitable maize varieties and improved technologies and (ii) National Seed Board (NSB), NARC and DoA enforce quality control through both public and private institutions.

Until 2012, seven improved maize varieties developed by NMRP/HMRP have been released by the National Seed Board (NSB), release proposal of three new maize varieties- Pool 17 E (Karnali 2), Arun 4 (Arun 4) and Arun 1 EV (Arun 3) has been submitted to the NSB. Similarly, the submission of a varietal release proposal for S99TLYQ-B (Yellow QPM) is under process. Several pipeline varieties with climate resilient traits such as drought tolerance, GLS/TLB tolerance and non-lodging have been included and tested in on-station and on-farm PVS and other trials. Through CBSP, about 1,036 t (977 and 59 tons of improved and foundation/source seed respectively) marketable surplus of improved maize has been produced in 2012. Similarly, 58.86 tons of breeder and foundation seeds were produced by NARC stations. HMRP IV reached to 50,740 households in the 20 targeted hill districts of which nearly 67 % were disadvantaged farmers (DAGs). The HMRP IV continued and increased lobby/collaboration with the NSB and other stakeholders to amend the seed policies in the country. The year 2012 was very significant in this regard. HMRP staff participated and contributed to develop the National Seed Vision 2025 document which has been prepared and submitted to GoN for approval. HMRP coordinated and contributed to develop new implementation guidelines (tentative name: "Community Based Seed Self-sufficiency Program (CBSSP)" prepared by CDD to harmonize Community Based Seed Production (CBSP/HMRP) and District Seed Self-Sufficiency Program (DISSPRO/GoN). Truthful Labeling (TL) in source seed and licensing of seed quality control authority to private, public and NARC scientists are now officially recognized in the new Seed Act and Seed Regulation. Directives and procedures for decentralized "truthfully labeled source seed" production are being prepared jointly by SQCC, NARC, DoA and HMRP/CIMMYT and VSP/CEAPRED. SQCC, NARC, DoA, NGOs, private seed companies and community based organizations (CBOs) continued receiving small equipment and infrastructure support to augment their research and development capacities. In-country training courses were conducted on various aspects of maize participatory research, crop management technologies, community based seed production (CBSP), seed marketing, and the application of seed quality control methods. Maize seed marketing has got new course in HMRP by introducing pre-sowing contract maize seed production and increasing collaboration with Agriculture, Forestry and Environmental Committee (AFEC/VDC).

Project interventions significantly contributed to strengthen maize seed supply system in the country. About 118 tons of source seeds (breeder and foundation), produced by NARC stations, private seed companies and CBSP groups/cooperatives, surpassed the source seed demand of 51 tons in HMRP covered districts. This means that considerable amount of source seed (67 tons) will potentially be utilized in other hill districts. Similarly, 977 tons marketable surplus of improved seeds met 22% of the maize seed demand (estimated maize total seed demand in the hills- 5,086 tons). The project

contribution for household food security of maize farmers will be analyzed and presented in the Annual Technical Report.

Several lessons were learnt from the implementation of HMRP activities in 2012. Such lessons included- (i) participation of disadvantaged farmers including women in the maize research and development was very effective to increase the adoption of improved maize varieties and technologies by these farmers; (ii) coordination with the VDC's AFEC need to be emphasized to make them able to take ownership of the plan and allocate resources (DDC/VDC grant of at least 15% to agricultural sector) (iii) need to further emphasize seed quality control and post harvest losses reduction (iv) seed marketing- pre-sowing contract seed production and linking CBSP groups to strategic seed companies; (iii) collective action of public, private, non- government and CBOs/ cooperative actors were very effective to increase the project impacts and sustainability (iv) decentralized source seed production in 2012 significantly helped CBSP groups and cooperatives to get breeder and foundation seed on time and as per of their need; (v) responsibility for foundation seed production should be gradually transferred from NARC stations to CBSP groups/ cooperatives and private seed companies. NARC should focus on applied and adoptive research on agronomy, variety development, maintenance and breeder seed production where private sectors still are not fully competent; (vi) targeted and strategic action is essential to institutionalize and align the HMRP/ CBSP in the GoN system like DISSPRO (vii) maize varietal improvement and breeding program at NMRP, Rampur should aim at developing climate resilient varieties (viii) institutional graduation of CBSP groups and their capacity building through public-private partnerships has significantly help building sustainability of the program (ix) on-boarding private seed companies and agro-vets especially in maize seed marketing has been instrumental for the sustainability of CBSP groups. (x) widening business through diversification of seed production by CBSPs helped them to increase income and sustainability (xi) role clarity among various actors (public, community and private) in maize seed value chain is extremely important for smooth operation of seed business (x) contract seed production focusing on local level outlets and utilization of VDC agricultural funds to promote adoption of improved maize varieties at the local level, linking maize seed with GoN seed subsidy program and strengthen CBSP-Agrovets-Seed Companies linkages will be key marketing strategies in the project.

The YPO- 2013 (2069/70) is prepared on the basis of continuing Gender Equity and Social Inclusion (GESI) as an integral component in all project activities, increasing efforts on post harvest losses reduction, seed quality control and seed marketing, enhance capacity of CBSP groups and cooperatives in processing, packaging and truthful labeling to add value in the product, validation and dissemination of crop management technologies in combination with the promotion of new varieties, increasing the role of local state (VDC/ DDC) in the agriculture sector, institutionalization of participatory research methods (PVS) and CBSP in the DoA and NARC systems, strengthening of NARC stations to implement decentralized source seed production and continue capacity development of NARC, SQCC and CDD and other HMRP partners through in-country training and small equipment and infrastructure support. The 2012 internship program was quite successful in HMRP. HMRP in 2013 will hire next batch of five interns from IAAS and private agricultural colleges to acquaint them with HMRP activities and assist with research and development activities. For this, women candidates from disadvantaged groups will be encouraged to participate. Similarly, the financial plan in the YPO 2013 (2069/70 - 2070/71) is prepared according to the GoN fiscal calendar. The program budget for SGP partners has been increased by 8.6 % (in NRs). Total budget allocated for outcomes A and B is US\$ 1,081,409 (Table 1) which comprises SGP funds, seed purchase for IRDs and PVS trials, seed revolving funds, salaries and allowances for interns, in-country training courses, and small infrastructure and equipment support for HMRP partners and CBSP groups.

2. OUTCOME MONITORING SUMMARY FOR 2013

Indicators	Baseline ¹	Phase target	Situation	Comment
A. Hill maize farmers, especially from poor and disadvantaged groups, adopt new and profitable maize varieties and improved technologies to enhance productivity and marketing opportunities				
1. NMRP and CBSP meets 30 % of national OPV maize seed demand of 5,086 tons	1,079 t	1,200 t targeted for 2013 by at least 212 CBSP groups (1,000 ha)	On track.	Strategic and targeted focus will be necessary to promote market-led seed business. Promising seed storage technologies such as hermeneutic technology and seed drying beads will be validated. SSR to be monitored at sample districts as well as the national level
2. 35,000 DAG HHs used new maize varieties and improved technologies	50,740 HHs	Same number of HHs targeted for 2013	On track.	Mechanism for working with local state (e.g. AFEC of VDC) should be developed for greater impact, sustainability and local level ownership
3. CBSP/Cooperatives involved in commercial seed production and marketing (Seed Value Chain)	200	200 CBSP groups (6,000 HHs with 50% women and 50% DAGs representation) will engage in seed multiplication and 40 of them developed commercial seed business	On track.	42 CBSP groups are already engaged in commercial seed business and these groups will be further strengthened in 2013
4. Beneficiaries use Quality Protein Maize (QPM)	10,000 HHs	12,000 HHs use Quality Protein Maize (QPM)	On track.	
5. Women and DAGs represented in CBSPs and in participatory research and extension activities	53 % women and 68 % DAG in total	55% women and 65% DAGs represented in CBSPs and 70 % women and 70 % DAGs participated in other research and development activities	On track.	More targeted effort will be made to ensure meaningful participation of women and DAGs
B. National Seed Board (NSB), NARC and DoA enforce quality control through both public and private institutions				
B.1. NARC/NSB issued directives and procedures for decentralized truthfully labeled source seed production	0	Directives and procedures for decentralized source seed production will be prepared	On track. Technical working group has been working formed to prepare draft directive	Practically decentralization of source seed production has been met in 2011 and 2012. Nine NARC stations and 27 CBSP groups were involved in source seed production in 2011 and 2012.

¹ Base line data indicates situation until 2011 (extracted from draft HMRP Annual Technical report 2011)

Indicators	Baseline ¹	Phase target	Situation	Comment
				However this has been relatively weak in eastern and far west region
B.2. Public and private sector experts obtain seed quality control mandate	0	200 NARC breeders, DADOs SMS and private sector experts (at least 50 women and 10 from private sector) authorized for field inspection, sampling and seed testing	78 participants (67 male and 11 female) were trained during 2011 and 2012	Most of these trained personnel are being involved mostly in field inspection. But their involvement until now has been on informal basis. NSB will conduct licensing test to authorize those trained personnel once the seed regulation is approved. Target need to be revised for 100 experts only. Similarly, number of trained women candidates should be revised.
B.3. Sufficient quantity of Breeder and Foundation seed production by NARC	101 t	80 tons breeder and foundation seed produced	On track.	
B.4. Four maize varieties, including one QPM, developed and released	7	4 varieties, including one QPM released	On track. Three pipeline OPVs, including one yellow QPM are in process of release in 2013	Development of climate resilient variety (drought, pest, low nitrogen, etc.) should be included in the NMRP breeding program. Research facilities at NMRP need to be improved
B.5 GoN approves and implements the Seed Vision 2025.			Seed Vision 2025 document has been endorsed by the MoAD, and it is currently under consideration by the NPC and other line ministries for final approval.	Need follow up

Indicators	Baseline ¹	Phase target	Situation	Comment
B.6 GoN harmonizes Community Based Seed Production (CBSP) and District Seed Self-Sufficiency Programme (DISSPRO) through adoption of new implementation guidelines			New implementation guidelines (tentative name: "Community Based Seed Self-sufficiency Program (CBSSP)" has been prepared by CDD	The guidelines are in process of wider sharing among stakeholders. It is expected that the new guideline will be endorsed and approved by the GoN authority by April 2013.

3. BASIC INFORMATION

3.1 Project Background

The Hill Maize Research Project (HMRP), initially funded by the Swiss Agency for Development and Cooperation (SDC), began in 1999 with the objective to increase the food security of farm families in the hills by raising the production, productivity and sustainability of maize-based cropping systems. The HMRP has gone through an initial period of four years (Phase I, 1999 to 2002), with the aim to develop, identify and validate maize varieties and technologies for the benefit of poor farmers in the hills of Nepal. It's primary focus was on on-station research. Phase II of the project went from 2003 to 2007 where the project balanced applied and adaptive research, multiplied seed of varieties selected by farmers in PVS through CBSP, and coordinated diverse small-grants projects that contributed to HMRP goals. In Phase III (January 2008 - July 2010), the project placed emphasis in the validation and dissemination of the improved maize varieties and agronomic/soil interventions, consolidated the participatory approaches for technology adoption, strengthened the partnership with different local stakeholders, emphasized gender equity and social inclusion (GESI), and expanded to other geographical areas in the hills. The current phase (HMRP IV, Aug 2010 to July 2014) is co-funded by SDC and USAID. The goal of the HMRP IV is to improve food security and income of poor and DAGs in the hill of Nepal by up-scaling and consolidating project achievements of the past three phases (1999-2010), maximizing impacts by selective intensification of key project activities following geographical clustering approach, focusing on dissemination, community based seed production and marketing and, continuing policy advocacy for truthful labeling, decentralized source seed production and public- private partnership in seed quality control.

3.2 Analysis of socio- political contexts

Nepal has plunged into new political and constitutional crisis after the Constitution Assembly (CA) was dissolved on May 28, 2012. The new election of CA declared by the Prime Minister for Nov. 22 2012 did not happen mainly due to rejection by opposition parties. Opposition parties have been organizing street protests demanding resignation of the current Prime Minister and formation of a new consensus government to oversee the elections. In this context, the ruling and opposition parties are sharply divided. Governance and law and order situation has been weak and degrading.

In spite of these constraints, Nepal has made fair level of progress in some social indicators. For example, Nepal recorded 5.7 % decline in absolute poverty between 2003/04 (30.86%) and 2009/10 (25.16%) (NLSS-III, 2011), and Nepal's hunger status has been improved from 'alarming' to 'serious' status according to the Global Hunger Report published by IFPRI in 2012. Nevertheless, the same reports also indicated that poverty and hunger have increased in the mid and far west Nepal and among the vulnerable social groups. These findings indicate the relevance of HMRP to work with the poor and disadvantaged farmers to reduce poverty and hunger.

The GoN has finalized the Agriculture Development Strategy (ADS) to replace the country's Agriculture Perspective Plan. Provision of "Voucher System" to farmers to access improved seeds and other inputs are being considered in the ADS. Likewise, the Nepal Agriculture and Food Security Country Investment Plan (2010) of the Government, has prioritized "seed" as an important element. These developments might be an opportunity for HMRP to strengthen seed supply targeting poor and DAG farmers. Likewise, the Seed Vision 2025 document was also prepared. The document defines a strategy to develop a seed system based on community-public-private partnerships. It also outlines a seed system development based on value chain model. These developments have created a supportive environment for HMRP since the work of the project has been perfectly aligned with the Seed Vision 2025 document. The provision of at least 15% budget from VDC grants for investment in the agriculture sector has been found extremely effective. Many HMRP partners and CBOs are already benefitting from this provision. Collaboration with local states in maize food security initiatives will be further expanded and strengthened. Climate change and climate variability is emerging as a main threat for a sustainable food security situation in the country. Nepal is now finalizing designs for the Local Adaptation Plans of Action (LAPA) targeting more than 400,000 people in mid- and far-western districts of Nepal under the National Adaptation Program of Action (NAPA 2010) framework. The development of climate resilient crop varieties is one of several key priority areas for adapting climate change at local level. This shows the relevance of HMRP to work with NMHP and other partners in the development, validation and dissemination of climate responsive maize varieties, as well as on the development and dissemination of other improved technologies to meet farmer's requirements.

3.3 Partners and the budget for 2013 (2069/70 and 2070/71)

In 2013, and as in previous years, 10 NARC research stations/ programs/ divisions, 20 DADOs (coordinated by DoA/CDD) and 21 NGOs, CBOs and private organizations will implement 63 SGPs (Annex 5). About 50,000 households and 212 CBSP groups from 20 project districts will be participating in the project.

The YPO 2013 (2069/70) is prepared based on the GoN fiscal calendar which starts from 15th July of each year. Adopting the GoN fiscal calendar means that one maize cropping season will fall under two GoN fiscal years. For 2013 (2069/70 and 2070/71), NRs 91,920,000 has been allocated for outcomes A and B (Table 1) of which 60% (NRs 55,151,880) of the total budget will come from fiscal year 2013 (2069/70) and 40% (NRs 36,767,920) will be covered from 2014 (2070/71) fiscal year.

Table 1: Budget allocated for Outcome A and Outcome B- 2013 (2069/70 and 2070/71) 1 US\$= NRs. 85.0

SN	Activities	16 July 2012 to 15 Jul 2013 (1st Semester 2013)	16 Jul 2013-15 Jul 2014 (2nd Semester 2013)	Total 2013	
				US\$	NRs. ('000)
1	Budget for HMRP- SGPs (Partners)	434,276	289,517	723,793	61,522
2	Budget to purchase seed for preparation of 35,000 IRD and 300 PVS sets	61,000	0	61,000	5,185
3	Central budget to support Outcome A and Outcome B	188,088	108,528	296,616	25,212
Total for Outcome A and B		683,364	398,045	1,081,409	91,920

A total of US\$ 723,793 is allocated to the partners for the implementation of 63 SGPs. Table 1b summarizes the budget allocation by partners. In 2013, NARC, CDD/DoA and NGOs/ CBOs will receive 46%, 25% and 30%, respectively. Budget will be released in two installments- 60% and 40%, respectively. US\$ 61,000 will be used for the purchase and preparation of 43,350 IRDs and 300 PVS trial sets. US\$ 296,616 will be managed centrally to support partners' activities under Outcome A and B which includes organization of training courses, monitoring, awarding partners and CBSP groups, infrastructure and small equipment support to partners, internships, etc. Detail budgets for each

HMRP partner are presented in Annexes 5 to 8. Similarly detail activities and budget to be carried out centrally is presented in annex 9.

Table 1b: Summary of budget allocation by partner 2013 (2069/70 and 2070/71)

HMRP phase	Year	NARC		CDD/DoA		NGOs/ CBOs		Total
		NRs.	%	NRs.	%	NRs.	%	NRs.
HMRP IV	2013	28,024,000	46%	15,110,000	25%	18,388,440	30%	61,522,440
HMRP IV	2012	24,977,000	44%	14,300,000	25%	17,393,000	31%	56,670,000
HMRP IV	2011	22,016,000	43%	13,484,882	26%	16,200,000	31%	51,700,882
HMRP III	2008-2010	21,930,000	44%	16,071,977	33%	11,447,200	23%	49,449,177

4. EXPECTED OUTCOMES

The goal of HMRP IV is to improve the food security and income of the rural HHs in the hills especially of the poor and DAGs. The HMRP IV has prioritized two outcomes targeted to program and seed policy aspects. The first outcome is related to increase the adoption of new and profitable maize varieties and improved technologies for enhanced productivity and marketing opportunities. Access and availability of the improved maize seed of farmer preferred varieties to the poor and DAGs plays a vital role to increase the adoption of new varieties and technologies. The second outcome is to advocate for producers', traders and consumers' friendly seed quality control procedures, including authorization for truthful labeling of the source seed for sustainable and efficient seed systems in the hills of Nepal. In this way, both outcomes complement each other to achieve the overall project goal.

Concentrated, enduring and continued efforts for communication of innovations are essential to improve food security of poor and DAGs in the remote hill areas. HMRP activities in 2013 (2069/70) have been planned to work with more than 50,000 HHs (with 70 % DAGs) covering about 200 VDCs from 20 remote hills districts. At least 43,000 IRD/ CFFT/FAT sets and 300 PVS sets, 600 intercropping trials and several other participatory technology validation and dissemination activities will be conducted in 2013 (2069/70). Similarly, seed production and marketing is emphasized through at least 212 CBSP groups (60 % of the members will be women) which aim to produce and market at least 1,200 t of farmers' preferred improved maize varieties. HMRP will focus on institutionalization, strengthening and enterprising CBSP groups in 2013 (2069/70) and onwards. Quality seed increment will be emphasized in CBSPs by rising seed productivity (1 t/ ha in 2012) and seed retention rate (65% in 2012) per unit area instead of increasing seed production area and number of CBSP groups. Training to the farmers is an integral part for all the activities. About 7,000 HH members (with 70 % DAGs) will be trained on improved maize production technologies including maize- vegetable intercropping, seed production, seed quality control and truthful labeling, seed marketing, seed business plan development, cost of seed production, group dynamics and GESI considerations. The maize seed produced by CBSP groups/cooperatives and NARC stations in 2012 including estimated informal seed flow in the community will be sufficient to meet about 30 % of the maize seed demand of about 70,000 ha in the hills of Nepal. GESI will be further emphasized to increase the participation of women and DAGs in CBSP and participatory research and extension activities. Maize breeding activities are targeted to develop varieties that are high yielding, drought, low nitrogen and diseases tolerant, including development of QPM varieties.

HMRP/CIMMYT, in close collaboration with NMRP/NARC, will implement two new strategic initiatives in 2013 (2069/70) which include development of modest research facilities in NMRP to systematically evaluate maize germplasm for drought tolerant and establishment of long-term conservation agriculture (CA) trials in selected NARC hill research stations. Both initiatives are targeted towards the development of climate resilient maize varieties and crop management technologies for the hills of Nepal.

During 2012, the project made significant progress on the policy outcome. Special efforts are being made to facilitate the approval of the revised Seed Regulation; the project contributed considerably in

the formulation of the National Seed Vision 2025 document. The operational guidelines to integrate DISSPRO (seed program undertaken by GoN) and CBSP (seed program undertaken by HMRP) has been prepared, and HMRP has been playing a key role to implement a decentralized source seed production and formulation of pragmatic directives. The project envisions obvious challenges ahead i.e. organizational capacities of the GoN institutions for effective implementation of those seed related rules, regulations, policies and programs. To address these challenges, HMRP will continue supporting the capacity development of public (SQCC, NARC, CDD and RSTLs), private (seed companies, Agro-vets) and community (seed producers' groups and cooperatives) actors in the country. Seed quality control training to agricultural scientists to get license to carry out seed field inspection, seed testing, sampling and truthful labeling will be continued in 2013 (2069/70). CBSP-RSTL linkages will be strengthened to allow CBSP groups to receive increased quality services from the respective RSTLs. Seed processing, packaging, branding and truthful labeling will be implemented through at least 42 CBSP groups identified as strategic by the project. The project has targeted to establish contract seed production agreements with the private sector at least for these 42 strategic groups for the 2013 crop season. NARC stations will be strengthened to produce quality breeder and foundation seeds to meet regional source seed demand. Strategic measures will be further worked out and implemented to ensure sustainability of the CBSP groups and cooperatives. Such strategies would be to enterprising CBSP groups, increase their linkages with the district line agencies, private seed traders and local states, and diversify seed production activities and integrating DISSPRO and CBSP. Small infrastructure support to CBSP and increased economic efficiency through value chain approach will significantly help CBSPs to sustain their seed production in the long-run. At least 40 CBSPs groups will receive refreshment training in one of the ARS who will work in their respective community to disseminate improved maize varieties and technologies. To reduce post-harvest losses, in 2013 HMRP will support CBSP groups/cooperatives with the “Super Grain Pro Bag” technology which has already being validated by NMRP Rampur and other partners. Similarly, the “Seed Drying Beads” technology will be validated with source seed at NMRP, and improved seed at TUKI Association (long term HMRP partner seed Company). The project will also take the lead in AFEC formation and mobilization in 4 VDCs (Dailekh- Dullu and Narayan NP, Okhaldhunga- Toksel, and Khotang- Bakachol).

5. EXPECTED OUTPUTS

Goal: Farm HHs in the hills of Nepal, especially of poor and disadvantaged groups have improved food security and income

Outcome A: Hill maize farmers, especially from poor and DAGs, adopt new and profitable maize varieties and improved technologies to enhance productivity and marketing opportunities

Outcome B: National Seed Board (NSB), NARC and DoA, enforce seed quality control through both public and private institutions.

5.1 Outputs under Outcome A

A.1. CBSP groups/cooperatives know and use available improved maize varieties and technologies

The YPO 2013 (2069/70) targets seed multiplication of farmers' preferred maize varieties (identified through PVS) with at least 6,000 HHs (212 CBSP groups/cooperatives). HMRP will emphasize on the technology transfer for quality seed production, strengthening and institutionalization of CBSP groups/cooperatives, enhancing internal seed quality control systems, good governance, enterprise development and creating linkages and synergies with the district line agencies, other agricultural projects and local states. The project will provide refresher training to at least 40 Community Seed Promoters (CSPs) in one of the NARC stations during 2013 maize season. Capacity of CBSP groups/cooperatives to produce quality source seed will also be emphasized as part of the decentralization of source seed production efforts. Most of the CBSP groups/cooperatives and poor farmers in the district will conduct sufficient PVS and IRD trials to provide them with the varietal options so that they can select the best varieties suitable to their conditions and to respond properly to the market demand. CBSP groups/cooperatives will be encouraged to adopt maize resource conserving technologies such as balanced use of fertilizer and compost, use of zero/ minimum tillage technologies, maize-vegetable/ legume intercropping, composting technologies and plant population management at the optimum level. Each of the CBSP members will be receiving training on the various aspects of seed system including seed production, seed quality control and truthful labeling, seed marketing, group dynamics, post harvest losses and GESI considerations. Such training will be organized during different stages of crop development including pre- sowing, crop growth and post-harvest. The executives of the CBSP groups/cooperatives will be trained on seed value chain, preparation of business development plan and plan execution. All these activities will ensure that the CBSP groups/cooperatives know and use improved maize varieties and technologies on a sustainable manner.

A.2. Poor and disadvantaged HHs have increased access to quality maize seed and proven technologies

Strategically, HMRP combines the yield potential of improved varieties, quality seed and agronomic practices to increase the profitability and sustainability of maize based cropping systems of the poor and disadvantaged farmers. These activities will be implemented using targeted participatory approach focusing on the poor and DAGs. About 70% of the targeted 50,000 HHs will be from DAGs. This year at least 43,000 sets of IRDs/FAT/CFFT sets will be provided to resource poor and DAG farmers. It means that these farmers will be able to produce sufficient seed to cover their fields for the subsequent year. Project partners will conduct on- farm training to these farmers in production technologies and seed selection methods. Many of those poor and DAGs will also be receiving about 7,500 baby sets (500 gm) to provide feedback to the researchers.

A.3. CBSP groups/cooperatives supply quality seeds at competitive market price

HMRP IV has emphasized seed marketing through active participation of the private sector, especially Seed Companies and Agro-vets. Towards this, the project in 2013 has initiated contract seed production involving CBSP groups and seed traders. In 2013, efforts are being made to enter into pre-sowing contract with the agro-vets and other possible seed buyers. About 42 strategic groups have been targeted to enter into this agreement. To enhance seed collection and marketing capacities of commercial CBSP groups, HMRP will continue providing training on seed production and seed business development plan. The Seed Entrepreneurs' Association of Nepal (SEAN) has been on boarded in the project. The YPO 2013 (2069/70) targets seed multiplication of farmers' preferred maize varieties in about 1,150 ha involving at least 6,000 HHs in 212 CBSP groups/cooperatives. About 1,200 t of marketable surplus seed is targeted for 2013. Similarly, CBSP groups/cooperatives involved in source seed production in 2012 will be capacitated to further increase the quality of the seed. These CBSP groups/cooperatives will produce about 40 t of foundation or source seed. They will be registered at the National Seed Board according to the prevailing Seed Act of Nepal. HMRP

will continue developing maize seed systems based on the value chain approach. It is planned that at least 42 strategic CBSP groups/cooperatives which have developed minimum seed related infrastructures and are engaged in commercial seed business will receive support to upgrade those facilities and continue to engage in seed marketing chain as strong actors.

In 2013, HMRP will continue providing technical, institutional and legal services to 42 strategic CBSP groups/cooperatives/companies. Monitoring of these CBSPs will be increased to ensure that project supports for small infrastructure and equipments development and seed revolving fund (SRF) are purposefully and properly utilized. HMRP also aims to utilize experiences and expertise of successful CBSP leaders through exchange visits and training. It is expected that the small infrastructure and equipments and SRF support, including market promotional support, will be instrumental in helping small and marginal seed producers by providing them with the needed cash immediately after harvesting. This measure will significantly reduce the possible misuse of seed as grain.

CBSP groups/cooperatives will strongly be encouraged to receive additional funding support from GoN district line agencies, NGOs and local states to develop their infrastructure. Input suppliers, seed producers, processors, traders and seed consumers will engage in seed business in such a way that each of the actors will be informed of the cost and margins that will allow seed producers to fetch fair price for their seed. This approach will eventually help to maintain seed price at a reasonable rate. At least 42 CBSP groups/cooperatives will sell truthfully labeled seed with proper cleaning, grading, branding and packaging.

A.4. Poor and disadvantaged maize producing HHs have access to multiple agricultural interventions for enhanced productivity

Collaboration and linkages will be further strengthened among the agricultural projects, district line agencies, NGOs and local states to create multiple livelihood options. The project will collaborate through the exchange of results and information, and through joint dissemination and training activities with a range of other projects, including SDC-funded projects such as VSP, SSMP, LILI, HG, etc., as well as with other relevant USAID-funded projects working in HMRP districts. With this initiative, at least 1,000 HHs will increase the cropping intensity in the SDC and USAID districts. About 300 farmers will practice maize and vegetables seed production (jointly with the VSP-CEAPRED project). QPM varieties will be popularized in collaboration with the Home Garden SDC-funded project.

5.2 Outputs under Outcome B

B.1 National Seed Board (NSB), NARC, DoA allow decentralized source seed production system

Supply of source seed of the farmers preferred varieties on time and the required quantity is one of the major constraints that CBSP and DISSPRO are facing in the country. NMRP, Rampur coordinates breeder and foundation seed production in the country. However, source seed produced by hill research stations of NARC are not able to meet regional demand for the source seed. To address these constraints, HMRP IV made significant progress to decentralize source seed production through public-private partnerships. With these efforts, NARC and CBSP groups have been able to produce and supply required quantity of breeder and foundation seed (72 tons). In 2013, at least the same level of seed production will be maintained. The main focus of the project will be on enhancing capacity (training, infrastructure and equipment support) of NARC stations and CBSP groups/cooperatives to produce quality seed according to the GoN prescribed standards and market demand. As in previous years, one Central and five Regional Seed Testing Laboratories (CSTL/RSTL), and nine NARC research stations will receive small infrastructure and equipment support in 2013.

B.2. Public and private institutions obtain seed inspection mandate and license

The newly amended Seed Act (2045 BS) of Nepal provisions two systems of seed quality controls. They are- seed certification (voluntary) and truthful labeling (compulsory). In HMRP, some of the CBSP groups and cooperatives are selling truthfully labeled seed in the market and the results are very promising. However, wider application of truthful label in maize seed requires significant efforts. Constraints associated with the non- adoption of these provisions include- weak human resources and infrastructure base of RSTLs, seed producers and traders; lack of awareness among the seed users, and poor market infrastructure. With this output, HMRP will respond to these constraints by providing training to the NARC, DoA, and private sector scientists and development workers in order to obtain licenses for field inspection, seed testing and seed sampling. Similarly, infrastructural constraints of the CSTL/ RSTLs and CBSP groups/cooperatives will be addressed by providing infrastructure support and training. In 2013, HMRP, in coordination with SQCC, will provide seed certification training to at least 30 potential seed inspectors. Seventy eight persons (female-11) were trained during 2011 and 2012 maize season. Those trained personnel will appear in the licensing test examination to be conducted by NSB in the near future. HMRP initially targeted 200 personnel to be trained for licensing test and envisioned 50% participation of women professionals. However, it is realized that the set target was too ambitious (80 would be sufficient) and the unavailability of women candidates in HMRP working districts and nationwide, as well as the enrollment of women professional in the training course, has been very low (10%).

B.3 CBSP groups/ cooperatives manage supply of quality seed

Strengthening the capacity of CBSP groups/cooperatives to produce and market quality maize seed is one of the most important outputs for HMRP IV. To ensure their capacity, in 2013 (2069/70) HMRP will focus on proper mobilization of trained CBSPs. For this, a list of the trained CBSPs will be prepared and the project will closely monitor their roles and functions. A refresher training course will be conducted for at least 40 such promoters. CBSP groups/cooperatives will continue receiving technical and other type of support services such as training to CBSP executives on seed value chain and business plan development, cost of production, and provide training to seed producers on seed production, seed quality control and truthful labeling, seed marketing, group dynamics, post harvest losses, and GESI considerations. This support will significantly help CBSP groups and cooperatives to develop their own internal seed quality control system to produce and supply improved quality maize seed.

B.4. NSB and NARC consider HMRP's experience in variety development, certification and release system

Maize breeding activities are targeted to develop varieties for higher yield, good adaptation and drought, GLS and low nitrogen tolerance. Three OPVs, including one yellow QPM, will be released in 2013. Varietal data generated in on- farm PVS trails are being considered by the NSB to release the proposed varieties. NARC has adopted the PVS approach in testing the performance and acceptability of maize varieties. To institutionalize these approaches, HMRP has been engaged to prepare guidelines on seed production and marketing where HMRP experiences on PVS, IRD and GESI approaches will be incorporated.

6. PROJECT MANAGEMENT AND FINANCIAL RESOURCES

The total phase IV budget of the project is US\$ 5,636,000 for four years (August 2010 to July 2014) which is co-funded by SDC- US\$ 3,636,000 and USAID- US\$2,000,000 (Table 2). This budget includes the operational costs, source seed production, monitoring, training, equipment purchase, vehicles/motorbikes procurement, small infrastructure, workshops, consultations, travel, data collection, socio-economic surveys, demonstration fields and market and field days, printing/dissemination of results, partial support for local administrative staff time, operational cost of one National Agronomist, one Seed Value Chain and Marketing Expert, four Cluster Agronomists, one international staff, and consultants/volunteers/interns as needed, to successfully implement the project. Auditors' recommendation especially to sign contract with GoN and other partners while awarding additional financial supports and equipments will be strictly followed in the project. The

summary of budget for each outcome/component, by funding source, is presented in **Tables 2 and 3**. Details are also given in **Annex 2**.

Table 2: HMRP IV Phase budget

Outcome/Output/Component	Phase Total Budget (US\$)		
	SDC	USAID	Total
Outcome A (Output A.1 to A.4)	1,615,423	916,173	2,531,596
Outcome B (Output B.1 to B.4)	646,251	363,497	1,009,748
NRS Expert Assistance (For Outcome A and B)	265,305	149,234	414,539
Total for Outcome A and B	2,526,979	1,428,904	3,955,883
Component C: CIMMYT Mexico Cost	697,323	358,017	1,055,340
Component D: CIMMYT Nepal Cost	411,698	213,079	624,777
Grand Total	3,636,000	2,000,000	5,636,000

The total accumulated expenses until December 2013 was US\$ 3,446,303 of which SDC and USAID's share corresponded to US\$ 225,071 and US\$ 1,195,588 respectively (Table 3).

Table 3: Budget for 2013 (2069/70 and 2070/71)

Outcomes	2012			2013			% change from
	SDC	USAID	Total	SDC	USAID	Total	
Outcome A	515,512	277,584	793,096	499,611	257,375	756,987	(5)
Outcome B	204,298	110,007	314,304	214,119	110,304	324,423	3
Sub- Total A and B	719,810	387,590	1,107,400	713,730	367,679	1,081,409	(2)
NRS EXPERT ASSISTANCE	71,500	38,500	110,000	72,215	38,885	111,100	1
CIMMYT NEPAL COST	126,750	68,250	194,999	126,750	68,250	194,999	-
TOTAL (US\$)	918,060	494,340	1,412,400	912,695	474,814	1,387,509	(2)
TOTAL (NRs '000)	68,854	37,075	105,930	77,579	40,359	117,938	11

Note: 2012 budget was calculated at 1 US\$= NRs 75.0 and 2013 has been calculated at 1 US\$=NRs 85.0

The total budget for 2013 is US\$ 1,387,509. This budget is 2 % less compared to 2012. But in terms of Nepali currency the increase will be 11%. This increase is mainly due to the favorable exchange rate of the NRs against the US dollar.

The FFA (actual) of August 2011 to July 2012 indicated that- on the fund receiver side, about 61 % of the budget were received by district or village actors whereas 47.3 % of the fund were received by discriminated groups of people. Similarly, on the beneficiary side, 58.6% of the fund were invested in disadvantaged groups and 34.7% fund were utilized in the SDC/Helvetas' eastern and western clusters. Gender beneficiary monitoring for two selected action lines showed that that on an average, about 63% of the budget were utilized for women farmers and 37% for men farmers (Annex 3).

Annex 1: Outcome Monitoring Summary Report (OMS) of 2012

Indicators	Baseline ²	Phase target	Situation	Comment
A. Hill maize farmers, especially from poor and disadvantaged groups, adopt new and profitable maize varieties and improved technologies to enhance productivity and marketing opportunities				
1. NMRP and CBSP meets 30 % of national OPV maize seed demand of 5,086 tons	1,146 t	1,250 t targeted for 2012 by at least 200 CBSP groups (1,150 ha)	1,079 t of maize seed produced by CBSP groups and NARC stations (NARC-46 tons and CBSP 1034 tons)	Drought during and after maize planting resulted reduced seed harvest in 2012 (6% less compared to 2011)
2. 35,000 DAG HHs used new maize varieties and improved technologies	50,740 HHs	50,000 HHs targeted for 2012	On track.	Efforts to increase participation of women and DAGs will be increased
3. CBSP/Cooperatives involved in commercial seed production and marketing (Seed Value Chain)	195	200 CBSP groups (6,000 HHs with 50% women and 50% DAGs representation) will engage in seed multiplication and 40 of them developed commercial seed business	HMRP worked with 195 CBSP groups/cooperatives and 7,000 members HHs. Preliminary data shows that 55% women and 65% DAGs represented in those CBSPs. Out of total 42 CBSP groups initiated/established commercial seed business	Project will continue efforts to increase participation of women and DAG farmers in maize seed production and marketing activities Similarly, project intervention on marketing of seed will be significantly increased
4. Beneficiaries use Quality Protein Maize (QPM)	5,000	10,000 HHs use Quality Protein Maize (QPM)	About 11,000 HHs produced QPM in 2012	30 t of QPM was produced in 2012. Seed increase of QPM and sensitization has been emphasized
5. Women and DAGs represented in CBSPs and in participatory research and extension activities	53 % women and 66 % DAG in total	55% women and 65% DAGs represented in CBSPs and 60 % women and 70 % DAGs participated in other research and development activities	On track. An orientation/training course, covering issues on GESI, will be organized for more than 70 partners in early 2012	
B. National Seed Board (NSB), NARC and DoA enforce quality control through both public and private institutions				
B.1. NARC/NSB issued directives and procedures for decentralized truthfully labeled source seed production	0	Directives and procedures for decentralized source seed production will be prepared	A Working Committee (WC) led by SQCC and comprising members from HMRP, NARC, VDD, CDD, and VSP has been	Practically decentralization of source seed production has been met in 2012. Nine NARC stations and 27 CBSP groups were involved in

² Base line data indicates situation until 2011 (extracted from draft HMRP Annual Technical report 2011)

Indicators	Baseline ²	Phase target	Situation	Comment
			formed to prepare directives and procedures for decentralized truthfully labeled source seed production	source seed production in 2012. However, this has been relatively weak in the eastern and far west regions
B.2. Public and private sector experts obtain seed quality control mandate	0	200 NARC breeders, DADOs SMS and private sector experts (at least 50 women and 10 from private sector) authorized for field inspection, sampling and seed testing	78 participants (67 male and 11 female) were trained on seed certification during 2011 and 2012 and were oriented to obtain license from NSB	NSB will conduct licensing test to authorize those trained personnel once the seed regulation is approved. Target need to be revised for 100 experts only. Similarly number of trained women candidate should be revised.
B.3. Sufficient quantity of Breeder and Foundation seed production by NARC	111.5 t	80 tons breeder and foundation seed produced	102 tons of source seed (Breeder and Foundation) produced by NARC stations (46 tons) and CBSP groups (56 tons)	Project will emphasize on quality and marketing aspects of source seed production
B.4. Four maize varieties, including one QPM, developed and released	7	4 varieties, including one QPM released	Pool 17 E (Karnali 2), Arun 4 (Arun 4) and Arun 1 EV (Arun 3) are submitted to NSB for release. Varietal release proposal of S99TLYQ-B (Yellow QPM) is under process	Pipeline varieties with improved traits for drought tolerance, GLS/TLB tolerance, non-lodging, early maturing and higher yield are being tested through on- station and on- farm PVS and other trials

Annex 2. Phases and Annual Budget (2010-2014)

OUTCOME A (COMPONENT A)	2010/11			2011/12			2012/13			2013/14			TOTAL		
	SDC	USAID	Total	SDC	USAID	Total	SDC	USAID	Total	SDC	USAID	Total	SDC	USAID	Total
OUTPUT A.1 CBSP Groups know and use available improved maize varieties and technologies	136,261	76,647	212,908	118,659	66,746	185,405	116,743	65,668	182,411	100,039	56,272	156,311	471,702	265,333	737,035
OUTPUT A.2: Poor and disadvantaged households have increased access to quality maize seed and proven technologies	119,371	67,146	186,517	106,840	60,097	166,937	100,171	56,346	156,517	100,171	56,346	156,517	426,553	239,935	666,488
OUTPUT A.3: CBSP groups/Cooperatives supply quality seeds at competitive market price	120,460	67,758	188,218	118,870	66,865	185,735	117,590	66,145	183,735	113,045	63,588	176,633	469,965	264,356	734,321
OUTPUT A.4: Poor and disadvantaged maize producing HHs have access to multiple agricultural interventions for enhanced productivity	50,819	28,585	79,404	50,819	28,585	79,404	108,079	60,794	168,873	50,819	28,585	79,404	260,536	146,549	407,085
TOTAL FOR OUTCOME A (A.1 to A.4)	426,911	240,136	667,047	395,188	222,293	617,481	442,583	248,953	691,536	364,074	204,791	568,865	1,628,756	916,173	2,544,929
OUTCOME B (COMPONENT B)															
OUTPUT B.1: National Seed Board (NSB), NARC, DoA allow decentralized source seed production system	61,417	34,547	95,964	61,156	34,400	95,556	55,017	30,947	85,964	55,017	30,947	85,964	232,607	130,841	363,448
OUTPUT B.2: Public and private institutions obtain seed inspection mandate and license	29,729	16,723	46,452	29,729	16,723	46,452	29,729	16,723	46,452	3,605	2,028	5,633	92,792	52,197	144,989
OUTPUT B.3: CBSP/cooperatives manage supply of quality seed	60,503	34,033	94,536	60,633	34,106	94,739	55,931	31,461	87,392	55,931	31,461	87,392	232,998	131,061	364,059
OUTPUT B.4: NSB and NARC consider CBSPs experience in variety development, certification and release system	19,543	10,981	30,524	17,409	9,784	27,193	16,079	9,045	25,124	34,823	19,588	54,411	87,854	49,398	137,252
TOTAL FOR OUTCOME B (B.1 to B.4)	171,192	96,284	267,476	168,927	95,013	263,940	156,756	88,176	244,932	149,376	84,024	233,400	646,251	363,497	1,009,748
NRS EXPERT ASSISTANCE (For Outcome A and B)															
1. NRS Agronomists	33,712	18,963	52,675	35,398	19,911	55,309	37,167	20,907	58,074	39,026	21,952	60,978	145,303	81,733	227,036
2. Cluster Agronomists	27,842	15,661	43,503	29,234	16,444	45,678	30,696	17,266	47,962	32,230	18,130	50,360	120,002	67,501	187,503
TOTAL	61,554	34,624	96,178	64,632	36,355	100,987	67,863	38,173	106,036	71,256	40,082	111,338	265,305	149,234	414,539
TOTAL FOR OUTCOMES A & B INCLUDING NRS COST	659,657	371,044	1,030,701	628,747	353,661	982,408	667,202	375,302	1,042,504	584,706	328,897	913,603	2,540,312	1,428,904	3,969,216
COMPONENT C: CIMMYT MEXICO COST															
C.1 Expert assistance-IRS-G. Ortiz	103,000	51,000	154,000	107,800	53,900	161,700	113,000	57,000	170,000	119,000	59,500	178,500	442,800	221,400	664,200
C.2 Indirect cost	65,688	35,914	101,602	62,007	32,968	94,975	65,110	34,715	99,825	62,385	33,020	95,405	255,190	136,617	391,807
Total CIMMYT Mexico Cost	168,688	86,914	255,602	169,807	86,868	256,675	178,110	91,715	269,825	181,385	92,520	273,905	697,990	358,017	1,056,007
COMPONENT D: CIMMYT NEPAL COST															
D.1 Travel	15,000	10,000	25,000	20,000	10,000	30,000	20,000	10,000	30,000	20,000	10,000	30,000	75,000	40,000	115,000
D.2 Services (i.e. consultancies)	16,304	10,000	26,304	20,000	10,000	30,000	20,000	10,000	30,000	20,000	10,000	30,000	76,304	40,000	116,304
D.3 Office support (cost sharing)	23,729	14,744	38,473	28,667	14,333	43,000	30,667	15,333	46,000	33,333	16,667	50,000	116,396	61,077	177,473
D.4 Vehicle repair and maintenance	13,333	6,667	20,000	14,000	7,000	21,000	14,667	7,333	22,000	15,333	7,667	23,000	57,333	28,667	86,000
D.5 Equipment	13,333	6,667	20,000	13,333	6,667	20,000	13,333	6,667	20,000	13,333	6,667	20,000	53,332	26,668	80,000
D.6 Vehicles and motorbikes	33,333	16,667	50,000	-	-	-	-	-	-	-	-	-	33,333	16,667	50,000
Total CIMMYT Nepal Cost	115,032	64,745	179,777	96,000	48,000	144,000	98,667	49,333	148,000	101,999	51,001	153,000	411,698	213,079	624,777
GRAND TOTAL	943,377	522,703	1,466,080	894,554	488,529	1,383,083	943,979	516,350	1,460,329	868,090	472,418	1,340,508	3,650,000	2,000,000	5,650,000

Hill Maize Research Project (HMRP)- IV: Yearly Plan of Operation 2013

Annex 3: Fund Flow Analysis (Actual)

Project: Hill Maize Research Project -IV
Period of analysis: 16 July 2011 to 15 July 2012

Budget	994,335			
Currency	US\$	Fund Receivers	Beneficiaries	Fund Allocation

	Budget Headings	Budget Amount	Geographical Outreach			Discrimination		Disadvantaged group perspective			Cluster perspective		
			District/ rural	Central	International	Discriminated	Non - Discriminated	DAG	Non-DAG	General and common costs	Central cluster districts	Western cluster districts	Others and National
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A.1	CBSP Groups know and use available improved maize varieties and technologies	120,431	95%	5%	0%	80%	20%	60%	30%	10%	30%	25%	45%
A.2	Poor and disadvantaged households have increased access to quality maize seed and proven technologies	85,600	95%	5%	0%	75%	25%	60%	30%	10%	30%	25%	45%
A.3	CBSP groups/Cooperatives supply quality seeds at competitive market price	132,101	95%	5%	0%	75%	25%	60%	30%	10%	30%	25%	45%
A.4	Poor and disadvantaged maize producing HHs have access to multiple agricultural interventions for enhanced productivity	10,450	95%	5%	0%	70%	30%	80%	100%	100%	30%	25%	45%
	Sub-Total	348,582											
B.1	National Seed Board (NSB), NARC, DoA allow decentralized	173,894	90%	10%	0%	65%	35%	60%	30%	10%	30%	25%	45%
B.2	Public and private institutions obtain seed inspection mandate and license	10,739	90%	10%	0%	65%	35%	60%	30%	10%	30%	25%	45%
B.3	CBSP/cooperatives manage supply of quality seed	152,769	85%	15%	0%	70%	30%	60%	30%	10%	30%	25%	45%
B.4	NSB and NARC consider HMRP's experience in variety development, certification and release system	20,503	90%	10%	0%	70%	30%	60%	30%	10%	30%	25%	45%
	Sub-Total	357,905											
1	NRS Agronomist and SVC Expert-2	27,743	0%	100%	0%	0%	100%	70%	10%	20%	25%	15%	60%
2	Cluster Agronomists-4	20,518	0%	100%	0%	0%	100%	0%	100%	0%	30%	25%	45%
	Sub-Total	48,261											
C.1	Expert Assistance-IRS	108,080	0%	0%	100%	0%	100%	0%	0%	100%	33%	33%	34%
C.2	Indirect Cost	72,282	0%	0%	100%	0%	100%	0%	0%	100%	33%	33%	34%
	Sub-Total	180,362											
D.1	Travel	17,482	40%	50%	10%	65%	35%	35%	45%	20%	30%	25%	45%
D.2	Services (i.e. consultancies)	2,601	0%	100%	0%	25%	75%	50%	40%	10%	25%	25%	50%
D.3	Office support (cost sharing)	13,992	0%	100%	0%	15%	85%	0%	0%	100%	20%	15%	65%
D.4	Vehicle repair and maintenance	15,038	0%	100%	0%	15%	85%	0%	0%	100%	15%	15%	70%
D.5	Equipment	5,791	0%	100%	0%	0%	100%	0%	0%	100%	25%	10%	65%
D.6	Vehicles and motorbikes	4,321	0%	100%	0%	0%	100%	0%	0%	100%	10%	10%	80%
	Sub-Total	59,225											
	Total amount	994,335											
			652,622	159,603	182,110	524,605	469,730	452,822	251,461	308,863	297,386	255,819	441,131

International Maize and Wheat Improvement Center (CIMMYT)

Action Line	Budget
Gender Beneficiary Monitoring	
CBSP groups/Cooperatives supply quality seeds at competitive market price	132,101
CBSP/cooperatives manage supply of quality seed	152,769

Male	Female
40%	60%

Hill Maize Research Project (HMRP)- IV: Yearly Plan of Operation 2013

Annex 4: Fund Flow Analysis (Forecast)

Project: Hill Maize Research Project -IV
Period of analysis: 16 July 2012 to 15 July 2013

Budget	943,979			
Currency	US\$	Fund Receivers	Beneficiaries	Fund Allocation

	Budget Headings	Budget Amount	Geographical Outreach			Discrimination		Disadvantaged group perspective			Cluster perspective		
			District/ rural	Central	International	Discriminated	Non - Discriminated	DAG	Non-DAG	General and common costs	Central cluster districts	Western cluster districts	Others and National
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A.1	CBSP Groups know and use available improved maize varieties and technologies	116,743	85%	15%	0%	75%	25%	65%	20%	15%	25%	15%	60%
A.2	Poor and disadvantaged households have increased access to quality maize seed and proven technologies	100,171	85%	15%	0%	70%	30%	65%	20%	15%	25%	15%	60%
A.3	CBSP groups/Cooperatives supply quality seeds at competitive market price	117,590	95%	5%	0%	75%	25%	65%	20%	15%	25%	15%	60%
A.4	Poor and disadvantaged maize producing HHs have access to multiple agricultural interventions for enhanced productivity	108,079	95%	5%	0%	70%	30%	70%	15%	15%	25%	15%	60%
	Sub-Total	442,583											
B.1	National Seed Board (NSB), NARC, DoA allow decentralized	55,017	90%	10%	0%	70%	30%	65%	20%	15%	25%	15%	60%
B.2	Public and private institutions obtain seed inspection mandate and license	29,729	90%	10%	0%	70%	30%	65%	20%	15%	25%	15%	60%
B.3	CBSP/cooperatives manage supply of quality seed	55,931	85%	15%	0%	70%	30%	65%	20%	15%	25%	15%	60%
B.4	NSB and NARC consider HMRP's experience in variety development, certification and release system	16,079	90%	10%	0%	70%	30%	65%	20%	15%	25%	15%	60%
	Sub-Total	156,756											
1	NRS Agronomist and SVC Expert-2	37,167	0%	100%	0%	0%	100%	70%	10%	20%	25%	15%	60%
2	Cluster Agronomists-4	30,696	0%	100%	0%	0%	100%	0%	100%	0%	30%	25%	45%
	Sub-Total	67,863											
C.1	Expert Assistance-IRS	113,000	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%	100%
C.2	Indirect Cost	65,110	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%	100%
	Sub-Total	178,110											
D.1	Travel	20,000	50%	40%	10%	65%	35%	40%	40%	20%	30%	25%	45%
D.2	Services (i.e. consultancies)	20,000	0%	100%	0%	30%	70%	60%	30%	10%	25%	25%	50%
D.3	Office support (cost sharing)	30,667	0%	100%	0%	20%	80%	0%	0%	100%	25%	10%	65%
D.4	Vehicle repair and maintenance	14,667	20%	80%	0%	20%	80%	0%	0%	100%	25%	10%	65%
D.5	Equipment	13,333	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
D.6	Vehicles and motorbikes	-	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
	Sub-Total	98,667											
	Total amount	943,979											
			549,980	213,889	180,110	459,321	484,658	440,991	162,877	340,111	190,669	117,683	635,627

International Maize and Wheat Improvement Center (CIMMYT)

Action Line	Budget
Gender Beneficiary Monitoring	
CBSP groups/Cooperatives supply quality seeds at competitive market price	117,590
CBSP/cooperatives manage supply of quality seed	55,931

Male	Female
40%	60%

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Annex 5: List of partners and SGPs - 2012

SN	Ref No.	Organization Name	Organization Category	Project Title	Project location (District)	Project Leader	Budget (000 Rs) 2013		
							1st Installment	2nd Installment	2013
1	1.01	Agriculture Botany Division, NARC, Khumaltar, Lalitpur	NARC	On Station Varietal Maintenance and Source seed Production of two maize varieties (Deuti and Manakamana4)	Lalitpur	Narayan Bahadur Dhimi	540	360	900
2	1.46	Agriculture Botany Division, NARC, Khumaltar, Lalitpur	NARC	Evaluation of maize germplasm to identify the GLS and drought tolerant genotypes to develop tolerant cultivars for hills of Nepal	Lalitpur	Narayan Bahadur Dhimi	240	160	400
3	1.02	Agriculture Research Station, Pakhribas, Dhankuta	NARC	Source seed production cum location specific varietal trial on maize	Dhankuta	Ram Narayan Chaudhary	600	400	1,000
4	1.03	Agriculture Research Station, Pakhribas, Dhankuta	NARC	Variety improvement of maize through Informal Research and Development (IRD) and Participatory Variety Selection (PVS) in eastern hills of Nepal	Khotang, Okhaldhunga	Jagat Bandhu Adhikari	386	258	644
5	1.04	Agriculture Research Station, Pakhribas, Dhankuta	NARC	Up-scaling of QPM vegetable intercropping and composting technologies in Khotang and Okhaldhunga districts of Nepal	Khotang, Okhaldhunga	Ram Lal Shrestha	600	400	1,000
6	1.05	Agriculture Research Station, Pakhribas, Dhankuta	NARC	Community based seed production in Khotang and Okhaldhunga districts of Nepal	Khotang, Okhaldhunga	Ajaya Ratna Bajracharya	600	400	1,000
7	1.38 a	Agriculture Research Station, Pakhribas, Dhankuta	NARC	(a) Up scaling of proven maize pest management and seed storage technologies in Khotang and Okhaldhunga	Khotang, Okhaldhunga	Ram Narayan Chaudhary	311	207	518
	1.38 b	Agriculture Research Station, Pakhribas, Dhankuta	NARC	(b) Verification of conservation agriculture under maize based system through establishment of on-farm CA demo-trials in FAMPAR villages in Khotang and Okhaldhunga	Khotang, Okhaldhunga	Ram Narayan Chaudhary/ Ram Bahadur Katuwal	330	220	550
8	1.06	Agriculture Research Station, Dasharathpur, Surkhet	NARC	Increasing Food and Nutritional Security in hilly region of Surkhet district by Developing Quality Protein Maize (QPM) Village through Community Based Production	Surkhet	Anil Pokhrel	567	378	945
9	1.07	Agriculture Research Station, Dasharathpur, Surkhet	NARC	On-Station Source Seed Production of Different Maize Varieties	Surkhet	Dr Tara Bahadur Ghimire	567	378	945
10	1.36	Agriculture Research Station, Dasharathpur, Surkhet	NARC	Enhancing Maize productivity through improved agronomic management in the western hills of Nepal	Surkhet	Dr Tara Bahadur Ghimire	315	210	525
11		Agriculture Research Station, Dasharathpur, Surkhet	NARC	Validation of CA based crop management technologies through establishment of long-term CA trials (on-station)	Surkhet	Dr Tara Bahadur Ghimire	120	80	200
12	1.09	National Ginger Research Program, Kapurkot, Salyan	NARC	Increasing the maize production through selection of high yielding varieties and seed production in mid-western hills of Nepal	Salyan	Govinda KC	315	210	525
13	1.11	Hill Crops Research Program (HCRP), Kabre, Dolakha	NARC	Identification and popularization of new maize varieties through PVS and IRD	Dolakha, Ramechhap, S'palchowk, K'palanchowk,	K Baral	399	266	665
14	1.12	Hill Crops Research Program (HCRP), Kabre, Dolakha	NARC	Promotion of QPM (1000 HHs), market oriented maize-vegetable intercropping (50 Hhs) and profitable crop management technologies (500HHs)	Dolakha, Ramechhap, S'palchowk, K'palanchowk,	BN Adhikari	473	315	788
15	1.13	Hill Crops Research Program (HCRP), Kabre, Dolakha	NARC	On-Station and On-Farm source seed production for availability of quality seed	Dolkha	BB Pokharel	462	308	770
16	1.15	Hill Crops Research Program (HCRP), Kabre, Dolakha	NARC	Income generation through Community based seed production and marketing	Dolakha, Ramechhap, Sindhupalchowk, Kavre	BB Pokharel	459	306	765
17		Hill Crops Research Program (HCRP), Kabre, Dolakha	NARC	Validation of CA based crop management technologies through establishment of long-term CA trials (on-station)	Dolakha	BB Pokharel	120	80	200
18	1.16	National Maize Research Program, Rampur, Chitwan	NARC	Development of high yielding OPVs suitable for mid hills of Nepal	Chitwan	K. B. Koirala	600	400	1,000
19	1.17	National Maize Research Program, Rampur, Chitwan	NARC	Maintenance of released maize varieties through improvement of husk cover and other agronomic traits	Chitwan	B.R. Bhandari	211	141	352
20	1.19	National Maize Research Program, Rampur, Chitwan	NARC	Quality source seed production of released maize varieties	Chitwan	B.R. Bhandari	600	400	1,000
21	1.20	National Maize Research Program, Rampur, Chitwan	NARC	Maintenance, improvement and quality breeder seed production of released and pre-released open pollinated maize varieties	Rampur, Pakhribas, Kabre, Lumle, Dailekh	C.B. Kunwar	414	276	690
22	1.21	National Maize Research Program, Rampur, Chitwan	NARC	Development of high yielding and drought tolerant OPVs suitable for mid hills of Nepal	Chitwan	M.P. Tripathi	600	400	1,000
23	1.22 a	National Maize Research Program, Rampur, Chitwan	NARC	a. Up scaling of proven maize pest management and seed storage technologies for maize in western mid hills of Nepal	Palpa and Syangja	P. Thakur	348	232	580
	1.22 b	National Maize Research Program, Rampur, Chitwan	NARC	b. Verification of Conservation Agriculture based crop management technologies through establishment of long-term on-station CA trials at NMRP and on-farm CA demo-trials in Palpa and Syangja and long-term CA trials (FAMPAR village)	Palpa and Syangja	TB Karki	526	351	877
24	1.24	National Maize Research Program, Rampur, Chitwan	NARC	Maintenance and seed production of pre-release early maize varieties in Nepal	Chitwan	J. Shrestha	294	196	490
25		National Maize Research Program, Rampur, Chitwan	NARC	Participatory Technology Development and Dissemination Support for HMRP	HMRP districts	T.R. Rijal	276	184	460

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26	1.28	Regional Agricultural Research Station, Lumle	NARC	Improved Livelihoods through Community Based Maize Seed Production Program (CBSP) in Western Hills (CBSP)	Gulmi, Syangja, Palpa, Baglung	E.M. Bhattarai	630	420	1,050
27	1.30	Regional Agricultural Research Station, Lumle	NARC	Promotion and dissemination of superior maize varieties in western hills of Nepal through FAT and IRD (FAT and IRD set preparation and transportation)	Gulmi, Syangja, Palpa, Baglung	Keshav Shrestha	429	286	715
28	1.31	Regional Agricultural Research Station, Lumle	NARC	Promotion of profitable and environmentally sound technologies on maize based cropping system (ICT and Demonstrations)	Gulmi, Syangja, Palpa, Baglung	Tika Ram Chapagain	441	294	735
29	1.33	Regional Agricultural Research Station, Lumle	NARC	On-farm and on-station source seed production of released and pipe-line varieties of maize in the western hills of Nepal (BS+FS production)	Gulmi, Syangja, Palpa, Baglung	Amrit P. Poudel	600	400	1,000
30	1.35	Regional Agricultural Research Station, Lumle	NARC	Livelihood enhancement of the marginal farmers through the promotion and dissemination of superior maize varieties in the western hills of Nepal (FFT+PVS)	Gulmi, Syangja, Palpa, Baglung	Bihani Thapa	435	290	725
31	1.40	Agriculture Research Station, Dailekh	NARC	Promotion and dissemination of high yielding maize varieties in mid and far western hills of Nepal through IRD, FAT and PVS	Dailekh, Kalikot, Achham, Bhajang	Jhalak Dhakal	252	168	420
32	1.41	Agriculture Research Station, Dailekh	NARC	Increasing availability of maize source seed through on-station and community based seed production program in mid hills of Nepal	Dailekh	Jhalak Dhakal	504	336	840
33	1.42	Agriculture Research Station, Dailekh	NARC	Adding to the living Standard of Maize Growers in the Mid-hills by Adopting Sustainable Maize Based Cropping System	Dailekh	Dr. T B Pun	347	231	578
34		Agriculture Research Station, Dailekh		Validation of CA based crop management technologies through establishment of long-term CA trials (on-station)	Dailekh	Dr. T B Pun	120	80	200
35	1.47	Agriculture Research Station, Doti	NARC	Improving Livelihoods of far western hill people through increasing production of maize by assuring their access to improved technologies of maize and on-station source seed production	Doti/Achham	Hari Kumar Prasai	750	500	1,250
36	1.49.2	Agriculture Research Station, Doti	NARC	Up scaling of proven maize pest management technologies and validation of Conservation Agriculture Based crop management technologies through establishment of on-farm CA trials in FAPAR Village in Dadeldhura	Doti	Hari Kumar Prasai	529	353	882
37	1.48	CPDD, Khumaltar	NARC	Production and communication of improved maize and maize based technology through print and electronic media (Radio, FM, TV)	HMRP districts	Manoj Thakur	504	336	840
NARC TOTAL							16,814	11,210	28,024
38	2.01	Department of Agriculture/Crop Development Directorate, Hariharbawan, Lalitpur	DOA	Enhancing food security at local level Through Maize Technology Verification/ Dissemination and Community Based Seed Production (CBS) in the Middle-hills of Nepal	20 districts	Suroj Pokhrel	9,066.0	6,044	15,110.0
DOA/CDD TOTAL							9,066	6,044	15,110
39	4.17	Youth Manpower Mobilization Centre (YMMC), Jajarkot	NGO	Strengthening Community Based Seed Production and dissemination of improved maize technologies and Varieties in the food deficit and GLS prone VDCs of Jajarkot District	Jajarkot	Amar Bahadur Khatri	472.2	315	787.0
40	4.19	Youth Manpower Mobilization Centre (YMMC), Jajarkot	NGO	Dissemination of Improved Maize technologies and varieties to improve food and nutrition security of poor and disadvantaged farmers in the remote VDCs of Surkhet district	Surkhet	Rajendra Prasad Kadariya	409.2	273	682.0
41	4.18	Asaahaya Upakar Kendra/Garden, (AUK) Kathmandu	NGO	Maize Seed Production and Dissemination Project	Kavrepalanchowk	Bhola Poudel	396.0	264	660.0
42	4.20	Agri-Business and Trade Promotion Multipurpose Cooperative Ltd. (ABTRACO), Anamnagar, Kathmandu	NGO	Development of maize seed village in Dhading in combination with CBSP, PVS, IRD, ICT	Dhading	JC Gautam	594.0	396	990
43	4.22	Center for Community Resource and Environmental Development (CeCRED)-Nepal	NGO	Livelihoods improvements of resource poor and backward communities through promotion of profitable maize farming	Baglung	Manisha Thakuri	378.0	252	630
44	4.26	Development Initiative Welfare Organization (DIWO)	NGO	Maize Technology Promotion and Dissemination among the Mid-hill Farmers Community of Western Region of Nepal	Syangja, Palpa	Shankar Prasad Gaire	472.5	315	787.49
45	4.27	Forum for Rural Welfare and Agricultural Reform for Development (FORWARD Nepal)	NGO	Improving Food Security through Community Based Seed Production Initiatives in Surkhet District	Surkhet	Deepak Aryal	441.0	294	735
46	4.28	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)	NGO	Enterprising Community Based Seed Producer Groups in the Western Mid Hill Districts of Nepal	Gulmi, Palpa, Syangja and Baglung	Kamal Khadka	540.0	360	900
47	4.29	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)	NGO	Demonstration and promotion of Maize Based Technologies in Western Mid-hill Districts of Nepal	Gulmi, Palpa, Syangja and Baglung	Kamal Khadka	468.0	312	780

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48	4.31	MADE-Nepal	NGO	Promoting improved maize varieties through participatory research and community based seed production in Maize-based farming systems in Dailekh district of Nepal	Dailekh	Bishnu Silwal	441.0	294	735
49	4.32	MADE-Nepal	NGO	Promoting improved maize varieties through participatory research and community based seed production in Maize-based farming systems in Kalikot district of Nepal	Kalikot	Bishnu Silwal	441.0	294	735
50	4.39	Group of Helping Hands- (SAHAS) Nepal	NGO	Improvement of farm household income by enhancing production, productivity and sustainability of maize and maize based cropping system	Okhaldhunga	Bikash Khatiwada	420.0	280	700
51	4.40	Technical Training & Research Initiative Khumaltar, Lalitpur (TTRI)	NGO	Selection of location specific high yielding maize varieties with farmers' preferred traits and their seed multiplication	Kavrepalanchowk	Uma Paudyal	396.0	264	660
52	4.41	SUPPORT (Social Upliftment through Participatory Programmes, Research and Training) Foundation	NGO	Scaling up and dissemination of best Bets technologies in Achham, Bajhang, Baitadi, Dadeldhura and Doti districts	Aacham, Bajhang, Baitadi, Dadeldhura, Doti	Prem R. Ojha	535.5	357	892.5
53	4.42	SUPPORT (Social Upliftment through Participatory Programmes, Research and Training) Foundation	NGO	Strengthening Community Based Seed Producer (CBSP) groups and maize seed production and marketing in Achham, Baitadi and Dadeldhura districts	Achham, Baitadi, Dadeldhura	Hiranya B. Singh	504.0	336	840
54	4.44	Hill Development Council, Kathmandu (HDC)	NGO	Enhancing food security through sustainable seed security program to improve the livelihoods of marginalized rural poor in Dhading District	Dhading	Purna B Bajracharya	346.5	231	577.5
55	4.46	Forest and Environment Protection Society (FEPS)	NGO	Promotion of improved maize varieties and technologies in Dhading	Dhading	Badri Prasad Tiwari	346.5	231	577.5
56	4.47	Downtrodden and Oppressed Society, Gorkha (DOS)	NGO	Production of Quality Maize seed and enhancing the production of maize through the applications of maize production technologies	Ramechhap	Babu Ram Roka	346.5	231	577.5
57	4.52	EcoHimal Nepal, Kathmandu (EcoHimal)	NGO	Improving the Food Security and Livelihoods in Northern Khotang District	Khotang	Ek Narayan Dhakal	441.0	294	735
58	4.66	Khotang Development Forum (KDF)	NGO	Improved maize promotion in Khotang	Khotang	Baburam karki	392.5	262	654.15
59	5.01	Hariyali Community Seed Company Ltd and Sindhu Tuki Seed Cooperative, Thumpakhar Sindhupalchowk (Hariyali)	Pvt	Community Based Seed Production and Marketing through technology dissemination and business services to poor and DAG farmers in Sindhupalchowk district	Sindhupalchowk	Dhal Bahadur Bhandari	495.0	330	825
60	5.02	SEAN Seed Service Center (SSSC) Company Ltd. And Seed Entrepreneurs Association of Nepal (SEAN)	Pvt	Contract maize seed production to improve livelihood of resource poor farmers in Baglung and other HMRP districts	Baglung	Durga Adhikari	480.0	320	800
61	5.03	Sindhu Seed producer cooperative Association, Sindhupalchowk	Pvt	Validation and dissemination of new and profitable maize varieties and technologies for improved food security and income of poor and DAGs in Dolakha, and Sindhupalchowk districts	Dolakha, S'Palchowk	Dimesh Babu Poudel	444.8	297	741.4
62	5.07	Global Agri-tech Nepal Pvt. Ltd, Banke (GATE)	Pvt	CBSP and PVS of Maize for enhanced food security and farm income in selected VDCs of Jajarkot	Jajarkot	Ram Babu Neupane	393.4	262	655.6
63	5.09	Everest Media Consults (EMC)	Pvt	Media Promotion of Hill Maize Research Project (MMRP) Phase IV		Rohit Dahal	438.5	292	730.8
NGOs/CBOs/PSCs TOTAL							11,033	7,355	18,388
GRAND TOTAL (NRS '000)							36,913	24,609	61,522
GRAND TOTAL (US\$)							434,276	289,517	723,793

Annex 6: Detail budget for NARC

SN	NARC Station	4100	4110	4120	4130	4140	4150	4160	4180	4200	4220	4230	Total for 2012 (Rs'000)	Total for 2013 (Rs'000)	% change from 2012
		TA/DA	Vehicle/ fuel	Wages	Lab/ Res/ Supply	Farm Supply	Books pubs.	Train.	Farm repair	Rent/ Ser	Vehi. Rep.	Stationery			
1	RARS Lumle	1,238	445	693	82	1,173	-	448	-	-	-	145	4,030.0	4225	4.8
2	NMRP, Rampur	1,369	579	1,517	295	1,584	424	499	60	-	58	65	5,485.0	6449	17.6
3	HCRP Kabre	861	298	349	-	709	-	971	-	-	-	-	2,860.0	3188	11.5
4	CPDD Khumaltar	270	49	9	-	-	382	108	-	-	-	22	800.0	840	5.0
5	ARS Pakhribas	1,528	279	933	115	982	293	583	-	-	-	-	4,495.0	4712	4.8
6	ARS Dailekh	395	163	318	215	509	-	210	-	-	-	228	1,750.0	2038	16.5
7	NGRP, Kapurkot	84	58	67	-	95	16	58	-	-	135	13	500.0	525	5.0
8	ABD, Khumaltar	119	113	622	-	373	57	-	-	-	-	17	1,150.0	1300	13.0
9	ARS Surkhet	384	167	778	24	1,023	52	188	-	-	-	-	2,300.0	2615	13.7
10	ARS Doti	571	154	126	90	398	47	433	125	31	125	31	1,607.0	2132	32.7
	NARC Total	6,817.1	2,304.7	5,412.7	820.7	6,845.5	1,270.5	3,496.6	185.2	31.3	318.5	521.0	24,977.0	28,024.0	12.2

Annex 7: HMRP-CDD activities and budget for 2013

Title: Enhancing food security at local level Through Maize Technology Verification/ Dissemination and Community Based Seed Production (CBS) in the Middle-hills of Nepal

Geographical coverage (District/ VDCs): Khotang, Okhaldhunga, Ramechhap, Dolakha, Sindhupalchok, Kavre, Dhading, Baglung, Syangja, Palpa, Gulmi, Jajarkot, Surkhet, Dailekh, Kalikot, Achham, Doti, Dadeldhura, Bajhang, Baitadi

SN	Activity	Unit	Budget Head									Total (NRs '000)		
			Activity Target	Travel cost	Central Level Monitoring	Supplies and material cost	Farmers' Field level training/ workshop cost	Vehicle rental and/or fuel cost	Consulting services	Support to seed quality control	Reporting/ publication	1st Installment	2nd Installment	Total
1	Implementation of CBSP with post harvest storage support for marketing (Seed, fertilizers, equipments as super grain bag,	Ha.	341	496		3480		205				2688	1493	4181
2	Conduction of PVS (Mother Baby Trials)	Set	26	130		195						270	55	325
3	Implementation of IRD	No.	10700	286				121				305	102	407
4	Implementation of intercropping	No.	106	165		290		15				368	102	470
5	Planning meeting with HMRP Partners	Times	20				100					100		100
6	Material Support for quality FYM/compost	No.	99			396						266	130	396
7	Trainings													
7.1	Training on Seed Production (On the spot)	Times	40				400					400		400
7.2	Training on post harvest handling and	No.	40				400						400	400
7.3	Training to CBSP groups on seed marketing plan, book keeping and leadership	Times	40				400					150	250	400
8	Interaction workshop for Seed producers and traders (Marketing) /include HMRP	No.	20				1000					700	300	1000
9	Information dissemination on quality seed of maize through media (Radio, Pamphlets,	District	20						386			184	202	386
10	Crop cutting	No.	600	40			100	60				5	195	200
11	Prepare district source seed balance sheet	No	20								60	3	57	60

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12	Maize food festival	Times	3				50					30	20	50
13	District Seed Coordination Committee (DSCC) Meeting	Times	38				400					200	200	400
14	Help circulate letter to all VDCs requesting local development officer to allocate possible agri block grant fund to purchases to maize seed produced by CBSP	Times	20	20								20		20
15	Ensure maize seed quality control (Truthful labeling/ Printed bags) in CBSPs	Group No.	40	141						542		333	350	683
16	District level orientation about the programs to different stakeholders (DDC, VDCs, different political parties etc.) -	Times	1				25					25		25
17	Identification of climate smart appropriate sowing time - Doti	vdc	2						20			10	10	20
18	Audio visual preparation of HMRP in	No.	1	15		10					15	20	20	40
20	Seed quality control/Field inspection with on the spot training and Seed testing	Districts	20							1555		933	622	1555
21	Training to Field staffs about the conduction of the program	Number	2				500					250	250	500
22	Localized seed marketing workshop for Eastern region in Khotang	Times	1				250					250		250
23	Report Preparation and publication	Times	1								50		50	50
24	Monitoring & Evaluation													
24.1	Central Level	Districts	20		450			300				430	320	750
24.2	Regional Level	Districts	20	600				100				348	232	700
24.3	District Level	Times	240	647				230				471	406	877
25	Office material cost		L.S.			465						245	220	465
	Total 2013			2,540	450	4,836	3,625	1,031	406	2,097	125	9,004	5,986	15,110
	Total 2012			2,386	636	4,996	2,961	702	599	1,485	536	8,580	5,720	14,300
	% change			6.5	-29.3	-3.2	22.4	46.9	-32.2	41.2	-76.7	4.9	4.7	5.7

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Annex 8: Activities and budget for NGOs, CBOs and Private Seed Companies 2013

SN	SGP #	SGP Title	Name and address of Partner	Budget (NRs '000) 2012	Budget (NRs '000) 2013		
					1st Installment	2nd Installment	Total
1	4.17	Strengthening Community Based Seed Production and dissemination of improved maize technologies and Varieties in the food deficit and GLS prone VDCs of Jajarkot District	Youth Manpower Mobilization Centre (YMMC), Jajarkot	750	472.50	315.00	787.50
2	4.18	Maize Seed Production and Dissemination Project	Asaahaya Upakar Kendra/Garden, (AUK) Kathmandu	600	396.00	264.00	660.00
3	4.19	Dissemination of Improved Maize technologies and varieties to improve food and nutrition security of poor and disadvantaged farmers in the remote VDCs of Surkhet district	Youth Manpower Mobilization Centre (YMMC), Jajarkot	650	409.50	273.00	682.50
4	4.20	Development of maize seed village in Dhading incombination with CBSP, PVS, IRD, ICTdistricts	Agri-Business and Trade Promotion Multipurpose Cooperative Ltd. (ABTRACO), Anamnagar, Kathamandu	900	594.00	396.00	990
5	4.22	Livelihoods improvements of resource poor and backward communities through promotion of profitable maize farming	Center for Community Resource and Environmental Development (CeCRED)-Nepal	600	378.00	252.00	630.00
6	4.26	Maize Technology Promotion and Dissemination among the Mid-hill Farmers Community of Western Region of Nepal	Development Initiative Welfare Organization (DIWO)	750	472.49	315.00	787.49
7	4.27	Improving Food Security through Community Based Seed Production Initiatives in Surkhet District	Forum for Rural Welfare and Agricultural Reform for Development (FORWARD Nepal)	700	441.00	294.00	735.00
8	4.28	Enterprising Community Based Seed Producer Groups in the Western Mid Hill Districts of Nepal	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)	750	540.00	360.00	900.00
9	4.29	Demonstration and promotion of Maize Based Technologies in Western Mid-hill Districts of Nepal	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)	650	468.00	312.00	780.00
10	4.31	Promoting improved maize varieties through participatory research and community based seed production in Maize-based farming systems in Dailekh district	MADE-Nepal	700	441.00	294.00	735.00
11	4.32	Promoting improved maize varieties through participatory research and community based seed production in Maize-based farming systems in Kalikot district	MADE-Nepal	700	441.00	294.00	735.00
12	4.39	Improvement of farm household income by enhancing production, productivity and sustainability of maize and maize based cropping system	Group of Helping Hands- (SAHAS) Nepal	700	420.00	280.00	700.00
13	4.40	Selection of location specific high yielding maize varieties with farmers' preferred traits and their seed multiplication	Technical Training & Research Initiative Khumaltar, Lalitpur (TTRI)	600.00	396.00	264.00	660
14	4.41	Scaling up and dissemination of best Bets technologies in Achham, Bajhang, Baitadi, Dadeldhura and Doti districts	SUPPORT (Social Upliftment through Participatory Programmes, Research and Training) Foundation	850	535.50	357.00	892.50
15	4.42	Strengthening Community Based Seed Producer (CBSP) groups and maize seed production and marketing in and Achham, Baitadi and Dadeldhura districts	SUPPORT (Social Upliftment through Participatory Programmes, Research and Training) Foundation	800	504.00	336.00	840.00
16	4.44	Enhancing food security through sustainable seed security program to improve the livelihoods of	Hill Development Council, Kathmandu	550	346.50	231.00	577.50
International Maize and Wheat Improvement Center (CIMMYT)					29		
17	4.46	Promotion of improved maize varieties and technologies in Dhading	Forest and Environment Protection Society (FEPS)	550	346.50	231.00	578
18	4.47	Production of Quality Maize seed and enhancing the production of maize through the applications of maize production technologies in Ramechhap	Downtrodden and Oppressed Society, Gorkha	550	346.50	231.00	577.50

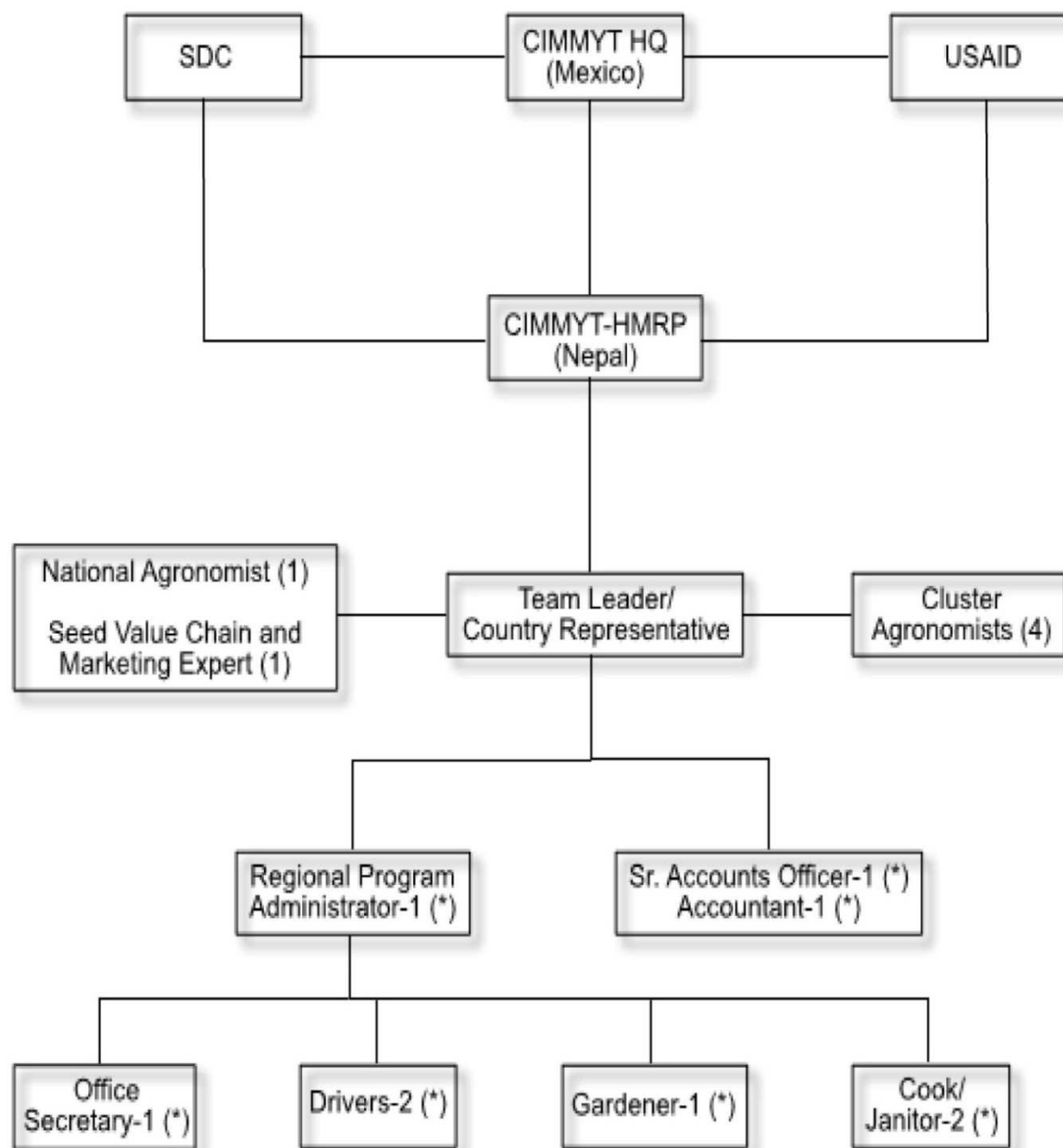
Annex 9: Detail activities and budget to be carried out centrally in support of outcomes A and B

SN	Action lines	Estimated Budget(US\$)	Estimated Budget(NRs '000)
1	Community Seed Promoters Refreshers' Training	20,000	1,700
2	Training on Seed Certification	18,000	1,530
3	Seed Marketing Support (Additional)	38,000	3,230
4	Regional level seed marketing workshops (4 regions)	30,000	2,550
5	Supplementary support to CBSP groups for infrastructures and equipments	37,941	3,225
6	Support to NARC and DoA to for infrastructures and equipments	43,529	3,700
7	Travelling Seminar	9,000	765
8	Central level monitoring and travel	30,000	2,550
9	HMRP internships (5 interns)	18,529	1,575
10	Post harvest operations support to CBSP	20,000	1,700
11	HMRP ARP Meeting	18,000	1,530
12	Miscellaneouses (10%)	13616	1,157
TOTAL		296,616	25,212

SN	Partners	Propo sal (No)	Presence of Partners in districts																		
			Aacham	Baglung	Baitadi	Bajhang	D/dhura	Dailekh	Dhading	Dolkha	Doti	Gulmi	Jajarkot	Kalikot	Kavre	Khotang	O/dhunga	Palpa	R/chnap	S/chowk	Surkhet
A	NARC (13 districts)																				
1	Agriculture Botany Division, NARC, Khumaltar, Lalitpur	2								1				1					1		
2	Agriculture Research Station, Dailekh	3						1													
3	Agriculture Research Station, Dasharathpur, Surkhet	3																		1	
4	Agriculture Research Station, Doti	1	1				1				1										
5	Agriculture Research Station, Pakhribas, Dhankuta	5													1	1					
6	CPDD, Khumaltar	1																			
7	Hill Crops Research Program (HCRP), Kabre, Dolakha	4							1	1				1				1	1		
8	National Ginger Research Program, Kapurkot, Salyan	1						1				1	1								
9	National Maize Research Program, Rampur, Chitwan	7																			
10	Regional Agricultural Research Station, Lumle	5		1							1						1				1
B	DoA- CDD (20 DADOs-20 districts)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
C	NGOs/CBOs/Cooperatives/ Companies																				
1	Agri-Business and Trade Promotion Multipurpose Cooperative Ltd. (ABTRACO), Anamnagar, Kathamandu	1								1											
2	Asaahaya Upakar Kendra/Garden, Kathmandu	1												1							
3	Center for Community Resource and Environmental Development (CeCRED)- Nepal	1		1																	
5	Development Initiative Welfare Organization (DIWO)	1															1				1
6	Downtrodden and Oppressed Society, Gorkha	1																1			
7	EcoHimal Nepal, Kathmandu	1													1						
8	Forest and Environment Protection Society	1							1												
9	Forum for Rural Welfare and Agricultural Reform for Development (FORWARD Nepal)	1																		1	
10	Group of Helping Hands- (SAHAS) Nepal	1														1					
11	Hill Development Council, Kathmandu	1							1												
12	Khotang Development Forum	1													1						
13	Local Initiatives for Biodiversity, Research and	2											1				1				1

[illegible]

Annex 11: Organizational chart



(*) = Partial support from HMRP