

Irrigation and Water Resources Management Project

(IWRMP)

Annual Progress Report of FY 2072/73

**Government of Nepal
Ministry of Agriculture Development
Department of Agriculture**

**Irrigation and Water Resources Management Project
Kumaripati, Lalitpur
2073**

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Abbreviation

| | |
|-------|---|
| AF | Additional Financing |
| ASC | Agriculture Service Center |
| DADO | District Agriculture Development Office |
| DOA | Department of Agriculture |
| DOI | Department of Irrigation |
| FMIS | Farmers Managed Irrigation Schemes |
| FY | Fiscal Year |
| GON | Government of Nepal |
| ICWMP | Integrated Crop and Water Management Program |
| IWRMP | Irrigation and Water Resources Management Project |
| NFCRP | Nepal Food Crisis Response Program |
| PCO | Project Coordination Office |
| RAD | Regional Agriculture Directorate |
| WECS | Water and Energy Commission Secretariat |

Background

Irrigation and Water Resource Management Project (IWRMP)-Additional Financing (AF), a follow-on phase of IWRMP is being implemented by the Government of Nepal since April 10, 2014 and will continue until June 30, 2018 with the financial assistance of the World Bank. The overall objective of this project is to improve irrigated agricultural productivity and management of selected irrigation schemes and enhance institutional capacity for integrated water resources management. In addition to this project, there is another program under IWRMP as an additional program named Nepal Food Crisis Response Program (NFCRP) which started from November 2008. The aim of this program is to mitigate both the short-term and the medium to long-term impact of rising food prices in Nepal as a result of the global food price trends. This program is expected to support the national strategy of the Government to maintain and enhance food security. It includes support to the implementation of social safety net measures to maintain access to basic needs (mainly food) among vulnerable households in food insecure districts; and agricultural productivity activities to expedite a supply response through the implementation of measures to raise the yields and consequently the production of staples food. This report presents the progress of activities carried out in FY 2015/16 under IWRMP-Additional Financing in **section A** and NFCRP in **section B**.

Section A: Irrigation & Water Resources Management Project

1. Introduction

Irrigation and Water Resources Management Project (IWRMP) is the World Bank funded project starting in March 2008. Its first phase with total cost of about US\$ 65 million has already been successfully completed with satisfactory results in June 2013 along with the secured one year time extension from July 1 2013 to June 30 2014 to complete the outstanding activities and carryout independent assessment of the project. Now the follow-on phase is running as Additional Financing (AF) to IWRMP from July 2014 to June 2018 with total funding of US\$ 50 million and about 10% of this fund is allocated for component D (Department of Agriculture) of this project. The AF is aimed to: i) help scaling up of best practices achieved by the original IWRMP project in farmer managed irrigation schemes (FMIS) to rehabilitate about 80 additional schemes, ii) support management transfer in the four agency managed irrigation schemes (AMIS), iii) develop four river basin plans, and iv) provide agricultural extension services in the schemes under farmer and agency managed schemes supported by the original IWRMP project. However, no changes have been made for IWRMP-AF in terms of project development objectives and components. The overall development objective is to improve irrigated agricultural productivity and management of selected irrigation schemes and enhance institutional capacity for integrated water resources management. Similar to the original IWRMP, the IWRMP-AF is comprised of four components: (A) Irrigation Infrastructure Development and Improvement, (B) Irrigation Management Transfer, (C) Institutional and Policy Support for Improved Water Management and (D) Integrated Crop and Water Management (ICWMP).

Out of the four components of the project, the components A and B are being implemented by the Department of Irrigation, the Water and Energy Commission Secretariat (WECS) is implementing agency of the component C while the component D is jointly implemented by the Department of Agriculture (DOA) and the Department of Irrigation (DOI). This project progress report presents briefly the implementation status of the component D of the IWRMP-AF implemented under the DOA in fiscal year 2015/16.

2.2. Key dates

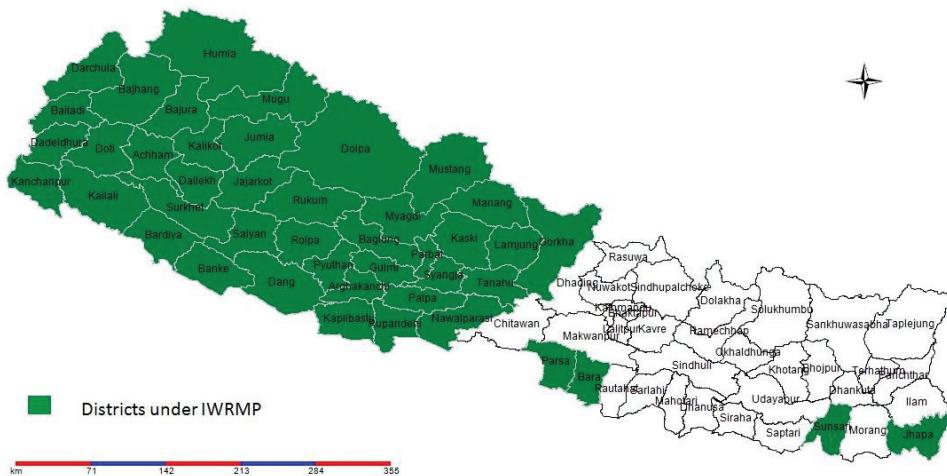
Table 1: Key dates of the IWRMP-AF

| Signing Date | Effectiveness Date | Original Closing Date | Status at present |
|--------------|--------------------|-----------------------|-------------------|
| 24-Mar-14 | 10-Apr-14 | 30-Jun-18 | Effective |

3. Project location

ICWMP are being implemented in the irrigation subprojects rehabilitated or constructed under the IWRMP-Original financing as well as AF and four AMIS supported by the project: Kankai, Sunsari-Morang, Narayani, and Mahakali. In total, the project covers 44 districts spanning across the mountains, hills and the Terai. that includes all 9 districts of the far western development region (Kailali, Kanchanpur, Dadeldhura, Doti, Baitadi, Achaam, Bajhang, Bajura and Darchula), 15 districts of the mid-western development region (Banke, Bardiya, Dang, Salyan, Surkhet, Kalikot, Mugu, Humla, Jumla, Jajarkot, Dolpa, Rolpa, Dailekh, Pyuthan and Rukum) and 16 districts of the western development regions (Nawalparasi, Rupandehi, Syangja, Tanahu, Kaski, Myagdi, Baglung, Parbat, Gorkha, Manang,

Mustang, Lamjung, Kapilvastu, Gulmi, Argakhachi and Palpa) and Bara and Parsa districts of the central development region and Jhapa and Sunsari of the eastern development region (Map 1).



Map1. Working Area of ICWMP

4. Implementation arrangement

At central level, the Project Coordination Office (PCO) under the DOA has been established in order to implement, monitor and coordinate the agricultural programs (Component D: integrated crop and water management) of the IWRMP fell under the responsibility of the DOA. Sub-project level activities have been implemented through the respective District Agriculture Development Offices (DADO) of the DOA while Regional Agriculture Directorate (RAD) are involved basically in monitoring and reporting of the ICWMP activities under the respective development region.

5. Main thrust of the ICWMP

The objective of the component D-ICWMP is to increase production, productivity and profitability of agriculture and related production activities in the schemes selected under the project. The component integrates the irrigation system rehabilitation and improved irrigation service provided through Components A and B with agricultural production activities. The component has the following three sub-components: (a) integrated crop and water management; (b) improvement of water distribution structures at the farm level; and (c) investment support for community and productive assets. Basically the program focus on on-farm crop water management, cropping pattern improvement, crop diversification and intensification, seed production at the community level, mechanization and organized market.

6. Major activities under ICWMP

The major activities under ICWMP are as follows:

- Distribution of small farm machinery
- Coordination meeting
- Seasonal planning workshop
- Farmers field school
- Demonstrations (cropping pattern, livestock sheds, composting, green manuring, micronutrient and plastic tunnel)
- Soil testing support
- capacity building and training: training (international, national, district and sub-project level) and exposure visit (inter-district and intra district) at district level
- Income generation activities of poor and marginal community

- Annual crop benefit and water management impact monitoring and evaluation
- Seed multiplication program
- Youth employment program
- Social mobilization
- Support to resources centers for the production of quality source material
- Logistic and office support.
- Investment support for adoption of ICWM technology: Investment subsidy for farm mechanization; investment subsidy for community based hatcheries, nurseries, seed centre etc; investment support for small processors/marketer; establishment of periodical market center and building minor structures linking farms to markets e.g. small roads, culvert, etc.

7. Major Activities and Progress of ICWMP in FY 2072/73

The overall modality of the program in DADOs is same as in previous years except some few new interventions like cluster demonstration and block demonstration program. In central level few new interventions were introduced: model ICWM program, establishment of high-tech greenhouse and establishment of e-learning centre in Agriculture service centers (ASCs). The overall physical progress of ICWMP in the fiscal year 2072/73 was 86.34%. Almost all the targeted programs were achieved on time except few which includes the procurement of mobile soil testing van, publication of handbook for agro-enterprise and machinery set distribution to support the community seed processing and storage centers, the detail of which is

illustrated in annex 2, 3, 4, 5 & 6. The detail of major activities and their progress status is explained below.

7.1 Grass root empowerment

ASCs are the front line advisory service providing outlets in sub project and associated areas under present DOA extension framework. Empowerment of these outlets in terms of basic operating facilities and technical capacity is perceived as fundamental prerequisite for quality service provision from such outlets. Computer with printer set has been provided to 44 districts (one ASC for each district) with technical capacity building training related to on farm crop water management in the FY 2014/15. In order to promote grass root level e-extension, 12 ASCs have been selected as model ASC and provided computer, printer, fax, scanner and other necessary accessories required for internet and email connection with solar power backup system in this reporting period. Based on their performance other ASCs will be supported in coming years.

7.2 Social mobilization support

Considering the high work load of the field level technicians and necessity of social mobilization support at the sub project level, the Project has mobilized part-time social mobilizers (eight months per year) from FY 2014/15 at sub-project level. During the FY 2014/15, 60 social mobilizers were recruited and trained in different aspect of social mobilization, ICWM program implementation and reporting. As their performance and contribution have been found to be highly relevant and useful, the project has continued the services of 60 social mobilizers in the FY 2015/16 too but their service has

been extended from 8 months to 10 months a year. A brief detail about recruited social mobilizers is shown in Table 2.

Table 2: Details of recruited social mobilizers

| Description | |
|---------------------------|---------|
| Gender | |
| Male | 53.44% |
| Female | 46.55% |
| Educational qualification | SLC- BA |
| Caste/Ethnicity | |
| Muslim | 3.40% |
| Dalit | 17.24% |
| Janjati | 20.68% |
| Brahmin | 58.62% |

As per the suggestion of the review mission, the Project has trained social mobilizers on different aspects so that they can help farmers in the field level. The Project has conducted an one week long training. Three such trainings have been organized in FY 2015/16 to provide opportunities for all social mobilizers to take part. Considering the need to aware the farmers about the importance of agricultural insurance, a full day session has been allocated to agricultural insurance during this training period.



Photo 1: Training conducted for social mobilizer in Kanchanpur, FY2015/16

7.3 Seasonal Planning

Seasonal planning meetings are regularly organized in each sub project for preparation of seasonal calendar of operation. In this year 127 seasonal planning meetings were organized in sub project sites.



Photo 2: Seasonal planning meeting at Malarani Sahare ISP, Surkhet

7.4 ICWM farmers field schools

Total 54 ICWM FFS were run in this year focusing on farm water management and other associated production technologies. About 1350 farmers participating in these FFS learned about better crop production techniques, safe use of chemicals and integrated crop and water management techniques. Social mobilizers supported for efficient implementation of these programs.



Photo 3: ICWM FFS plot in Rupandehi

7.5 Demonstration

Seasonal planning decides about the types of technology to be demonstrated based on local need and potentiality. The main focus of demonstration is to increase cropping intensity in irrigated area; improve soil fertility by incorporating legume crop and improve crop productivity. During this year 2222 demonstrations on different crops and technologies have been conducted in sub project areas.



Photo 4: Demonstration plot in Jhapa

7.6 Seed production



Photo 5: Wheat seed production plot in Baghkhor ISP, Surkhet

7.7 Livestock shed improvement

It is minor intervention dedicated to improve sanitation, conservation and use of cow dung/urine and create friendly environment for women to work for livestock raising. The ultimate goal of this activity is to increase quality of FYM with respect to nutrient content through minimizing loss and reduce external chemicals in crop production activities. This is found quite effective and there is large demand of such activities from the communities. In this year, 260 cow sheds were improved in different sites.



Photo 6: Improved livestock shed

7.8 Cash crop production and income generating activities

Based on government policy to focus youth self employment through specific support provisions and thereby to retain them in rural areas, 158 youths have been supported to carryout different types of agro based enterprises based on their business plan during this year. There is provision of support up to NPR 60 thousand per entrepreneur on installment basis. During this year all youth support program was given for vegetable farming. Through this initiative, commercial vegetable farming have been carried out in about 106 hector of land from which about 400 mt of vegetables have already been harvested within this fiscal year.

In addition, 72 ultra poor groups were supported to carryout need based income generating activities like mushroom farming, bee keeping, off season



Photo 7: Vegetable farming under youth focus program, Sunsari



Photo 8: Ultra poor woman producing mushroom in Chanaute ISP, Surkhet

vegetable farming, spices cultivation and so on. Ultra poor members are vulnerable community members in the ISP area and are generally defined by community members during program implementation. In general they are members from Dalit, Janjati and other social disadvantaged groups.

7.9 Capacity building activities

Under the capacity building, the project has supported to conduct different types of in-country training, seminar and exposure visit activities to the farmers of the sub-project areas, inputs suppliers (agrovets and seed entrepreneurs), social mobilisers and staff related to the project. The subject of the training included seed production, soil fertility management, on-farm water management, social mobilisation, safe use of pesticides and so on. Besides, during this period, the project provided opportunities to the related staff to participate in three international training program (on-farm water management: Israle-1; procurement: Italy-1 and soil testing mobile van

operation: India-1). During fiscal year 2072/73 also various capacity building training programs were organized.



Photo 9: Participants of input dealer training conducted in Pokhara

Table 3: Details of capacity building activities conducted in FY 2015/16

| Capacity building activities | Unit | Physical progress in FY 15/16 |
|--------------------------------------|------|-------------------------------|
| In-country | | |
| Farmer training | No | 298 |
| Input supplier | No | 8 |
| Field level technical staff training | No | 5 |
| Social mobilizer | No | 3 |
| International training | No | 3 |

7.10 Farm mechanization support

Farm mechanization is important intervention since the beginning of the project. Particularly, this project is always acknowledged for its efforts to promote small farm machineries in Nepal. This has contributed to reduce drudgery, work load and make the farming more comfortable among new generation to some extent. In this fiscal year 47 small farm machineries were distributed on 80% subsidy.



Photo 10: Power tiller, Pratappur, Bardiya

7.11 Model ICWM program in partnership with WUAs

As per Para 13 of Aide Memoire of 14th Implementation Review and Support Mission, the project has implemented its agriculture program through Water Users' Association (WUA)

in four locations during the FY 2015/16 :



Photo 11 Seed potato production block in Adhikhola Irrigation sub project, Shyanja

Kanchanpur: Mahakali irrigation system (Second phase, block seven); Dang: Manpur irrigation sub project; Shyanja: Adhikhola irrigation sub project and



**Photo 12: Wheat production plot:
Kankai Irrigation system, Jhapa**

Jhapa: Kankai irrigation system. The objective of this activity is to make WUA responsible and accountable for agriculture development within the sub project area. The modality adopted to implement this model program includes: (i) formation of agricultural sub-committee under WUAs comprising of progressive farmers to implement this program; (ii) preparation of a season plan with detail activities and target by the agricultural sub-committee in consultation with the farmers; (iii) refinement and finalization of the season plan through a seasonal planning workshop in the presence of WUAs, farmers, DADO and PCU; (iv) tripartite agreement between WUA, DADO and PCO signed to implement the seasonal plan; (v) technical backstopping and continuous monitoring by DADO, PCU and local resource person; (vi) upon the completion of the seasonal plan, WUA forwards necessary documents like original bills, receipt and reports to the respective DADO to recommend for payment; (vii) After the field verification, the DADO recommends and forwards the documents received from WUA to the PCU for payment and (viii) finally, the PCU transfers an eligible payment to the account of WUA directly. Major activities and progress of model program is presented in **Table 4**.

Table 4 : Details of model program implemented in FY 2015/16

| Location | Key activities | Remarks |
|---|---|--|
| Mahakali Irrigation system (Second phase, Block seven), Kanchanpur; | Seed potato production in cluster:6 Ha Banana plantation: 12 Ha | |
| Manpur Irrigation sub project, Dang | Seed potato production in cluster: 5 Ha Maize seed production: 5 Ha | 187.39 (Shyanja: 143 Mt, Dang:33.75 Mt and |
| Adhikhola Irrigation sub project, Shyanja | Seed potato production in cluster: 14 Ha Maize seed production: 26 Ha Paddy seed production: 10 Ha Banana & other fruit plantation | Kanchanpur:10.64 Mt) Mt seed potato in cold storage for next year planting |
| Kankai Irrigation system, Jhapa | Wheat production (block): 50 Ha Onion production demonstration | |

7.12 Poly house farming

Vegetable farming under plastic roof/tunnel is being quite popular activity in mid and high hill areas. To promote such practice, the project has supported for 762 plastic tunnels for high value vegetable crop production. During the last trimester of FY 2015/16, 13 staffs are trained on high tech plastic tunnel/poly house farming, drip irrigation and integrated crop and water

management in Israel. In order to apply the learned technology through overseas training, recently 38 high tech poly houses with fertigation system have been constructed in Salyan district for intensive vegetable production.



Photo 13: Poly house with fertigation system developed in Salyan District for intensive vegetable production

7.13. Status of procurement

There were sixprocurement activities in both goods and consulting services proposed in this fiscal year 2072/2073. Procurement of four wheeler (double cab pickup 8 nos &car 2 nos), procurement of furnishing and flooring officeequipment, procurement of lab/farm equipments, procurement of computer sets with power backup systems for ASCs, procurement of atomic absorption spectrophotometer and procurement of mobile soil testing lab weresix procurement activities under goods. All these procurements under goods have been completed except the procurement of mobile soil testing lab.

Procured vehicles and lab equipments have been distributed to respective offices.

There were six consultancy services proposed, which were "seed production and marketing support for community based seed processing and storage centers in Jhapa, Nawalparasi, Rupandehi and Bardia", "cost of production and value chain study of major cash crops in selected subprojects.", "preparation of project IPR and FMR", "preparation of handbook of agro enterprises", "feasibility study of establishment of seed buffer stock in Nepal" and "preparation of business plan for community based seed processing and storage centers in Jhapa, Nawalparasi, Rupandehi and Bardia". Among these six consultancy services, two programs, "cost of production and value chain study of major cash crops in selected subprojects" and "preparation of handbook of agro enterprises", could not be completed because none of the shortlisted consultants submitted the detail proposal on time.

8. Overall Project Status till 2072/73.

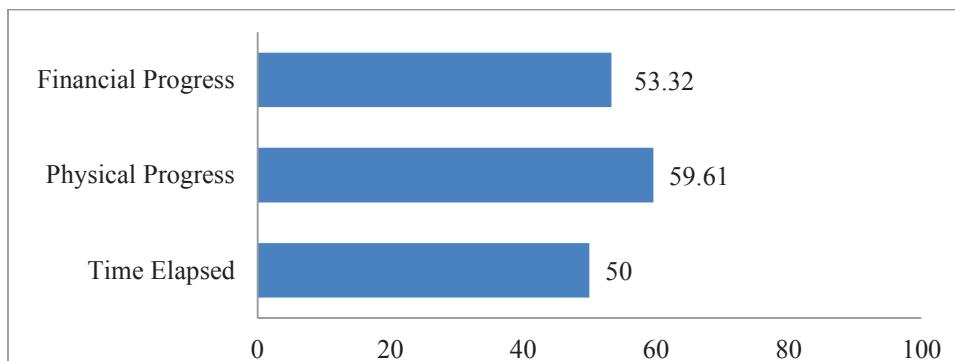


Figure 1:Overall Project Status till 2072/73

Additional financing to IWRMP (ICWMP) has completed 50% of its time period with 53.32% financial progress and 59.61% physical progress till end of FY 2072/73 as shown in figure 1 above.

9. Progress against output indicators

The major output indicators related to ICWMP are (i) increased in productivity of selected crop ((paddy, maize, wheat and potato), (ii) percent increased in cropping intensity, (iii) increased percent of farmers in the selected schemes adopting demonstrated techniques and (iv) increased in seed replacement rate. The internal assessment shows that good progress has been made on these indicators. The present status of these indicators is explained below.

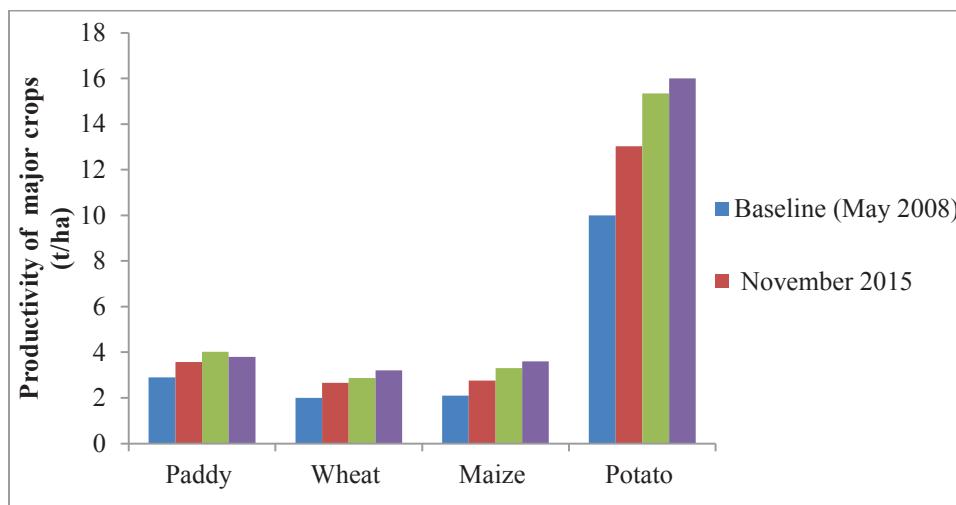


Figure 2: Progress in productivity of major crops till fiscal year 2072/73

In all the selected crops shown above we have almost achieved the end target for the productivity of the crops. The productivity of the major selected crops, according to the data compiled from the 44 DADOs, till the end of fiscal year

2072/73is: Paddy: 4.02Mt/ha, Wheat: 2.87Mt/ha, Maize: 3.31 Mt/ha and Potato: 15.34Mt/ha.



Figure 3: Progress in seed replacement rate of major crops till fiscal year 2072/73

As shown in above figure 3. in case of the seed replacement rate also we have almost achieved the targeted figure. The seed replacement rate of paddy, wheat and maize till the end of fiscal year 2072/73 is 13%, 12% and 16% respectively.

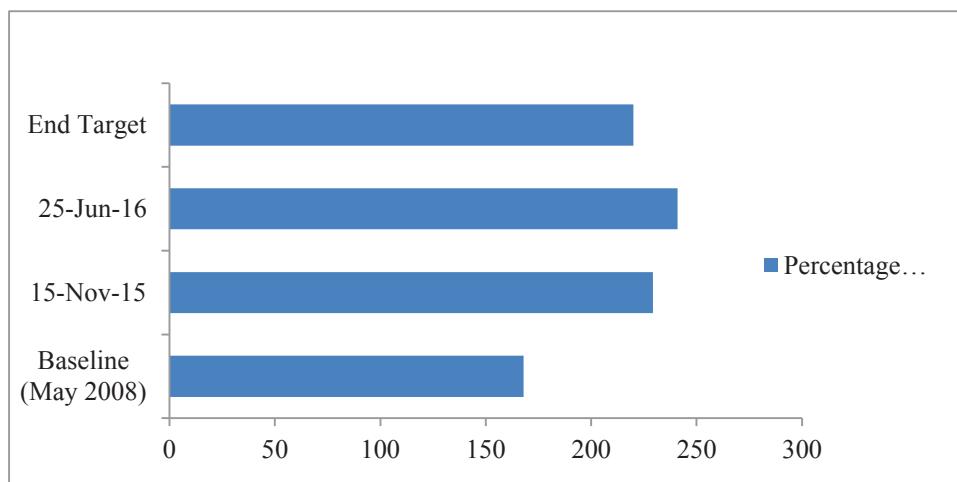


Figure 4: Percentage increase in Cropping Intensity till fiscal year 2072/73

The above figure 4 shows that during the starting phase of the project, the baseline figure of cropping intensity was 168%, but till the end of the fiscal year 2072/73 it has increased to 241% ,which is beyond the end target.

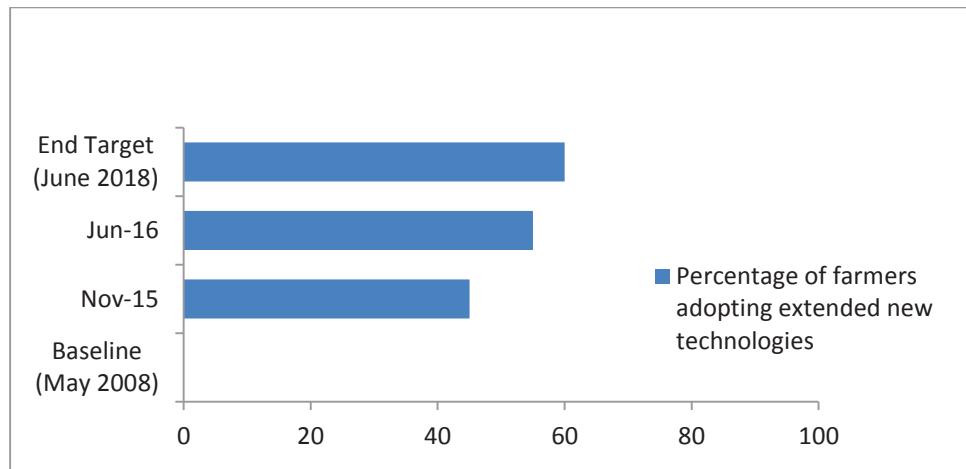


Figure 5: Status of farmers adopting the extended new technologies till 2072/73

There is also marked improvement in the percentage of the farmers adopting the new agricultural technologies extended by the project. According to the data reported by the 44 DADOs, by the end of fiscal year 2072/73 about 55% of farmers are adopting the technologies extended by the project.

3.10. Financial progress of ICWMP in FY 2072/73

Table 5: Total Annual Budget of ICWMP in FY 2072/73

| S.N. | Details | Allocated Budget (NPR. 000) |
|------|---------------------|-----------------------------|
| 1 | Government of Nepal | 5,490 |
| 2 | IDA (Loan) | 28,590 |
| 3 | IDA (Grant) | 180,825 |
| | Total | 214,905 |

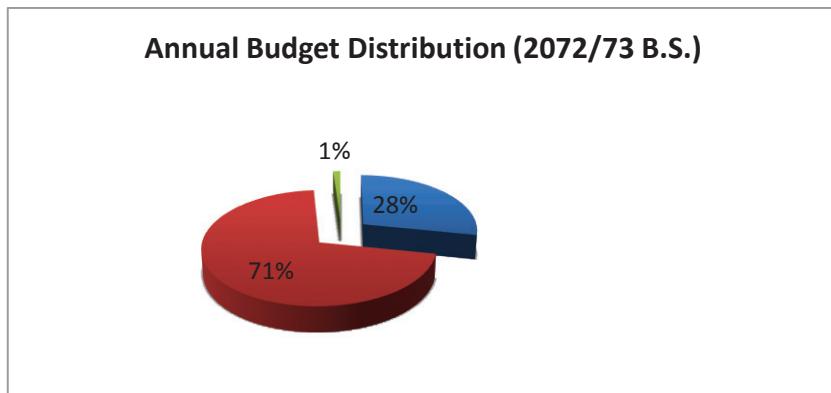


Figure 6. Annual Budget Distribution in fiscal year 2072/73 B.S.

The total annual budget of ICWMP in fiscal year 2072/73 B.S. was NPR 214,905,000. DADOs and PCO cover about 28% and 71% of the total budget respectively, while RADs hold only 1% of the total budget.

PCO was able to expense 66.40% of its total annual budget. Regional Agriculture Directorates (RADs) have expensed 96% of their annual budget. Similarly, 44 DADOs were able to expense 95.74% of their total annual budget. The total expenditure of the ICWMP in FY 2072/73 was NPR.161,131,000 which is about 75% of the total budget (**Table 6**).

Table 6: Expenditure by organization in FY 2072/73

| Organization | Budget, NPR'000 | Expenditure, NPR'000 | % |
|---------------------|------------------------|-----------------------------|--------------|
| PCO | 152,113 | 101,002 | 66.40 |
| RADs (5) | 2,375 | 2,286 | 96.25 |
| DADOs(44) | 60,417 | 57,843 | 95.74 |
| Total | 214,905 | 161,131 | 74.98 |

11. Approved program of ICWMP for FY 2073/74

The overall modality of the program in DADOs is same as in previous year expect the handover of total financial authority of model IWCM program to the respective DADOs. The separate programs are set for altogether fifty offices which include forty four DADOs, five Regional Agriculture Directorates and one Project Coordinator's office. The detail program of the fiscal year 2073/74 is given in Annex 9.

12. Approved budget for FY 2073/74

A total budget of NPR 181.963 million is approved for FY 2073/74 which is summarized in **Table7** below.

Table7: Allocated budget by organizations for FY 2073/74

| S.N. | Organization | Budget, NPR ('000) |
|--------------|---|---------------------------|
| 1 | Project Coordinator's Office | 95,475 |
| 2 | Regional Agriculture Directorates (5) | 2,885 |
| 3 | District Agriculture Development Offices (44) | 83603 |
| Total | | 181,963 |

13. Learning and best practices

The project has a number of notable learning and best practices that are outlined below.

Promotion of small farm machinery has contributed to reduce cost of production, drudgery and work load. This also leads to attract youth in agriculture to some extent. However, efforts should be concentrated on promotion of larger farm machines in terai whereas small farm machinery for hills.

Social mobilization is required for transformation of agriculture and is cost effective tool for extension delivery. This should be an integral component in any agriculture development projects. Preference should be given to local social mobiliser.

Our experience reveals that agriculture extension program is much more effective if delivers through WUA and this can reduce workload of public extension system. Payment of agriculture development activities directly to the account of WUA increases accountability. If utilize properly, WUA can transform agriculture in the command area. Thus, WUA should be developed as a multi functional community organization looking after development of irrigation and agriculture sector rather than just for construction and maintenance of irrigation canal.

Section B: Post disaster agriculture rebuilding activities: Additional Financing for IWRMP (IDA Credit 4515)

1. Introduction

Food Crisis Response Program (FCRP) has been implemented by the Government of Nepal since 2008 with the financial assistance of the World Bank to mitigate both the short-term and the medium to long-term impact of rising food prices in Nepal as a result of the global food price trends. The program is expected to support the national strategy of the Government to maintain and enhance food security. It includes support to the implementation of social safety net measures to maintain access to basic needs (mainly food) among vulnerable households in food insecure districts; and agricultural productivity activities to expedite a supply response through the implementation of measures to raise the yields and consequently the production of staples food. The FCRP consists of two separate projects: one is Social Safety Nets Project (SSNP) and other is Additional Financing to the Irrigation and Water Resource Management Project. Out of the two separate projects under the FCRP, the Social Safety Nets Project has already been closed on 30th September, 2014 whereas the original closing date of the Additional Financing to the Irrigation and Water Resource Management Project was June 30, 2013 but has been extended thrice with new closing date of June 30, 2016. The last extension was due mainly to support recovery activities following the earthquake of April 25, 2015.

It is estimated that the total value of disaster effects (damages and losses) caused by the earthquake in agriculture sector alone is NPR 28,366 million

besides over 8,790 casualties and 22,300 injuries¹. Recognizing the need to support rebuilding agriculture following the devastating earthquake, the last extension was made as an immediate response through utilizing the remaining balance.

2. Key dates

Table 1: Key dates

| Signing Date | Effectiveness Date | Original Closing Date | Revised Closing Date | Status at present |
|--------------|--------------------|-----------------------|----------------------|-------------------|
| 2-Nov-08 | 30-Jan-09 | 30-Jun-13 | 30-Jun-16 | Closed |

3. Project Districts

Given the size of the money available, rebuilding activities have been implemented only in four districts. They are Gorkha, Ramechhap, Khotang and Solukhumbu districts (**Figure 1**) which fall within the 23 districts supported by the FRCP and within 31 districts affected by the earthquake.

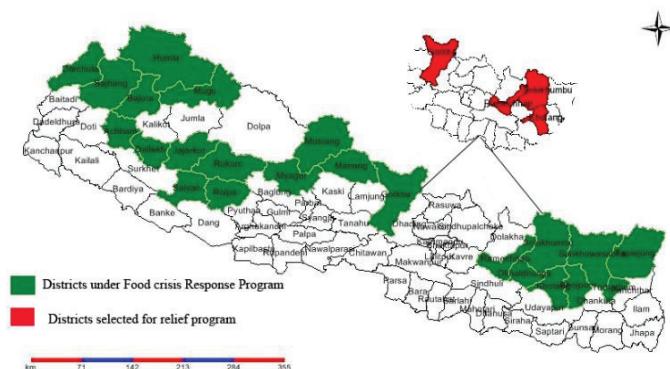


Figure 1: Map showing project districts

¹ National Planning Commission (2015).Nepal Earthquake 2015: Post Disaster Needs Assessment. Kathmandu, Nepal: National Planning Commission.

4. Rebuilding agriculture activities

Within the framework of recommendations made by the Post-Disaster Needs Assessment (PDNA) report, the rebuilding activities included (i) construction of livestock sheds, (ii) establishment of community grain and seed storage, and (iii) supply of small farm machineries.

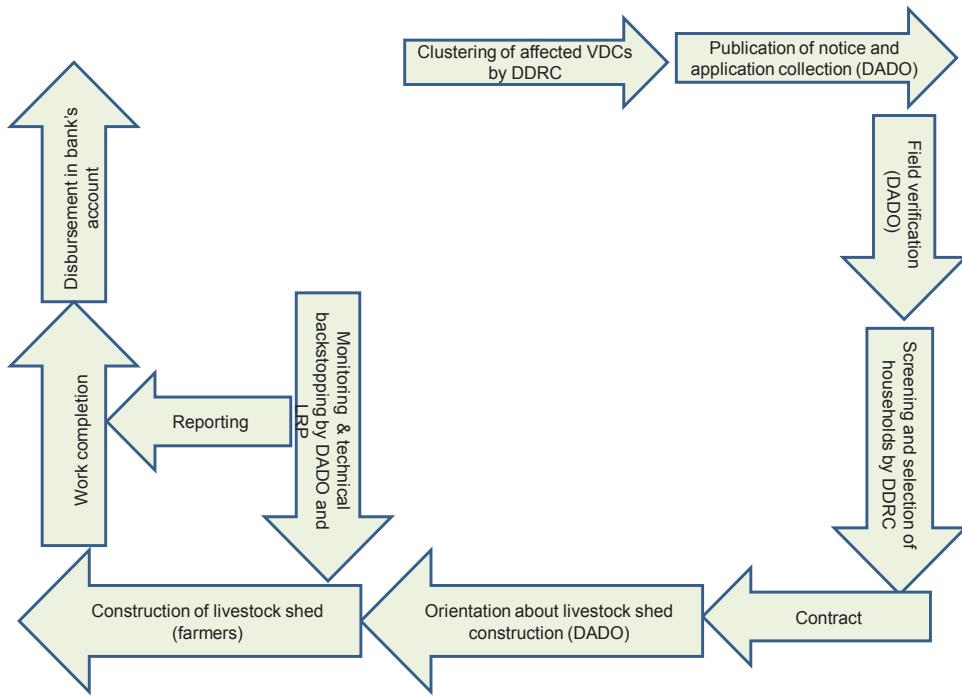
4.1 Construction of livestock sheds

The Project has supported to construct 5944 livestock sheds for the earthquake affected rural farmers. The livestock shed construction activity has been implemented through the respective District Agricultural Development Offices (DADO) in close coordination with the District Disaster Relief Committee (DDRC). The main roles of the DDRC in



Fig 2: Livestock shed: Women farmer- Ms Sharda Kadariya, Khimti 1, Ramechhap

livestock shed construction were to develop household selection criteria and identify target households. The implementation modality of livestock shed construction adopted by the DADO, Ramechhap, for example, is presented in **Figure 3**.



Each selected household after the completion of the work as per the guidelines of the project was provided NPR 25,000.00 subsidy irrespective of the total cost involved for it. The details of the livestock shed constructed by district is presented in **Table 2**.

Table 2: Details of the livestock shed constructed by districts

| District | No of livestock shed constructed | Cost, NPR,000 | | |
|--------------|--|-----------------------|-----------------------|---------------|
| | | IWRMP | Beneficiaries | Total |
| Gorkha | 1793 | 44825 | 41731 | 86556 |
| Khotang | 1206 | 30150 | 20254 | 50404 |
| Ramechhap | 1766 | 44150 | 44150 | 88300 |
| Solukhumbu | 1179 | 29475 | 15741 | 45216 |
| Total | 5944 | 148600(54.94%) | 121876(45.06%) | 270476 |

4.2 Establishment of community grain and seed storage

The project has supported the victim communities at the grassroots level in building and improving grain and seed storage facilities. Upon the recommendation of the DDRC of the respective districts, the project has constructed seven new community grain and seed storage center: three in Gorkha district and one each in Ramechhap, Khotang & Solukhumbu with the involvement of local community. The details of the constructed community grain and seed storage center are presented in **Table 3**.



**Fig 4: Community grain and seed storage center,
Kathjor, Ramechhap**

In addition the project has renovated three community seed storage centers (Palungtar, Gorkha; Khimti, Ramechhap and Tingala, Solukhumbu) that have been constructed previously under the FCRP. The community seed storage center, Palungtar, Gorkha that was damaged by the devastating earthquake that hit Nepal on 25th of April 2015 have required a major renovation and so was reconstructed. However, other two centers have been repaired.

Table 3: Detail of community grain and seed storage

| S N . . | Location | Infrastructure developed | Cooperative/Farmer group | Cost, NPR 000 | | | Remarks |
|-------------------|---------------------------|--|--|------------------------------|----------------------------|----------------|---------------|
| | | | | Project contribution | Community contribution | Total | |
| 1 | Nerpa 5, Khotang | Storage house (capacity:48 mt), drying floor,toilet, fences | Bhulbhuley Agriculture Cooperative, Nerpa 5, Khotang | 4871.71 | 543.26 | 5414.97 | |
| 2 | Ghyalchock 9, Gorkha | Storage house (capacity:48 mt), drying floor ,toilet | Samuhnik Krishni Upandan Cooperative, Ghyalchock 9, Gorkha | 3898.75 | 433.2 | 4331.95 | |
| 3 | Fujel 2, Gorkha | Storage house (capacity:48 mt), drying floor, toilet | Kaudi Jalkanyaddevi farmer groups Fujel 2. Gorkha | 3296.64 | 366.3 | 3662.94 | |
| 4 | Jaubari 9, Gorkha | Storage house (capacity:48 mt), drying floor, toilet | Jannabhumi Multipurpose Cooperative, Jaubari 9, Gorkha | 4316.71 | 479.63 | 4796.34 | |
| 5 | Kathjor 5, Ramechhap | Storage house (capacity:48 mt), drying floor, toilet, fences | Jamarko Agriculture Coerative, Kathjor 5, Ramechhap | 4077.11 | 453.01 | 4530.12 | |
| 6 | Tilpung 2, Ramechhap | Storage house (capacity:36 mt), drying floor ,toilet | Kalikadevi Hattidhunga seed producer farmer group, Tilpunga 2, Ramechhap | 3200.8 | 355.65 | 3556.45 | |
| 7 | Nechabatase 3, Solukhumbu | Storage house (capacity:48 mt), drying floor ,toilet | Ajanbari Himal small women farmer cooperative, Nechabatase, Solukhumbu | 4086.71 | 454.08 | 4540.79 | |
| 8 | Palungtar, Gorkha | Storage house (capacity:36 mt), drying floor, toilet, fences | Bhrinuki seed producer farmer group, Palungtar 7, Gorkha | 3057.07 | 339.67 | 3396.74 | Reconstructed |
| 9 | Khimti, Ramechhap | Repaired | Ushakiran agriculture cooperative, Khimti, Ramechhap | 301.87 | 33.54 | 335.41 | |
| 10 | Tingala, Solukhumbu | Repaired | Rawaliguras agriculture cooperative, Tingala, Solukhumbu | 413.19 | 45.9 | 459.09 | |
| Total cost | | | | 31520.56 (89.99%) | 3504.24 (10.01) | 35024.8 | |



Fig 5: Community seed storage center, Palungtar, Gorkha (above: damaged by the earthquake. Below: after reconstructed



Fig: Power tiller handover in Gorkha

4.3 Supply of small farm machineries

The project has distributed 90 small farm machineries (60 mini tillers and 30 power tillers) based on the demands of the earthquake ravaged communities through concerned DADOs (**Table 4**).

Table 4: Details of small farm machinery distributed

| S.N. | District | Type of farm machinery distribute | | |
|--------------|------------|-----------------------------------|-------------|-----------|
| | | Power tiller | Mini tiller | Total |
| 1 | Gorkha | 15 | 18 | 33 |
| 2 | Khotang | | 12 | 12 |
| 3 | Ramechhap | 15 | 9 | 24 |
| 4 | Solukhumbu | | 21 | 21 |
| Total | | 30 | 60 | 90 |

5. Budget and expenditure

The actual cost for the earthquake relief program is NPR 200,333,930.00 as against the allocated budget of NPR 207,496,000.00 (**Table 5**).

Table 5: Budget and expenditure

| Budget allocated, NPR'000 | | | Actual expenditure, NPR'000 | | |
|---------------------------|------------|------------|-----------------------------|------------|------------|
| GON | IDA Credit | Total | GON | IDA Credit | Total |
| 924 | 206,572.00 | 207,496.00 | 909.21 | 199,424.72 | 200,333.93 |

6. Response of earthquake ravaged communities

Although it is too early to assess the impact of the activities conducted under the rebuilding agriculture, the preliminary responses of the beneficiaries demonstrate the broader range of positive impacts the rebuilding activities

have on their farming and livelihood. Regarding the cattle shed, it has separate feeding manger, slopping cemented floor and urine collection tank. The women farmers of Gorkha praised that separate feeding mangers enable efficient handling of fodder/feed and reduce wastage of fodder/feed. Slopping cemented floor and separate urine collection tank allow easier shed management and cleaning. This also contributes to reduce work load of women. Similarly it is reported that urine collection has multiple benefits such as increased efficiency of bio-gas and can be used as liquid fertilizer in kitchen gardening.

During the handover ceremony, the recipient of the power tiller, especially *dalit* and *janjatis* are very much happy and told that in the context of labour scarcity and high wage rate, this supports would be not just a relief for farmers but also would reduce the cost of production, drudgery and work load.

7. Lesson learned and future way forward

The budget of existing cattle shed improvement activities under the Department of Agriculture needs to be revised and should make at least NPR 25,000.00.

Incorporation of grass chopper along with cattle shed construction is expected to provide better results.

Local resource mobilization enables the campaign of cattle shed construction possible.

ANNEX 1: Command districts of IWRMP 'D'

| Eastern Region | Central Region | Western Region | Mid-Western Region | Far-Western Region |
|-----------------------|-----------------------|-----------------------|---------------------------|---------------------------|
| 1.Jhapa | 1.Bara | 1. Lamjung | 1. Dailekh | 1. Achham |
| 2.Sunsari | 2.Parsa | 2. Manang | 2. Jajrkot | 2. Darchula |
| | | 3. Gorkha | 3. Slyan | 3. Bajhang |
| | | 4. Mustang | 4. Rolpa | 4. Bajura |
| | | 5. Tanahun, | 5.Rukum | 5. Kailali |
| | | 6. Kaski, | 6. Mugu | 6. Kanchanpur |
| | | 7. Myagdi, | 7. Humla | 7. Baitadi |
| | | 8. Parbat, | 8. Banke | 8. Dadeldhura |
| | | 9. Baglung, | 9. Bardia | 9. Doti |
| | | 10. Syangja, | 10. Kalikot | |
| | | 11. Palpa, | 11. Dolpa | |
| | | 12.Gulmi, | 12. Jumla | |
| | | 13. Arghakhanchi, | 13. Dang | |
| | | 14. Nawalparasi, | 14. Surkhet | |
| | | 15. Rupandehi, | 15. Pyuthan | |
| | | 16. Kapilbastu | | |

ANNEX 2: Major Activities and Progress of ICWMP in FY 2072/73 B.S.

| S.N. | Activities | Unit | Target | Achievement |
|-------------------------------------|---|-------|--------|-------------|
| Capital Expenses | | | | |
| 1. | Procurement of furnishing and flooring articles | Nos. | 10 | 10 |
| 2. | Procurement of Vehicles | Nos. | 9 | 10 |
| 3. | Procurement of machineries and equipments for resource centers. | Times | 1 | 1 |
| 4. | Procurement of Computer sets with power backup and internet facility | Nos. | 12 | 12 |
| 5. | Procurement of Atomic Absorption Spectrophotometer | Nos. | 1 | 1 |
| 6. | Procurement of Mobile Soil Testing Van | Nos. | 1 | 0 |
| Current Expenses | | | | |
| Project Coordinator's Office | | | | |
| 7. | Seed production and marketing support for community seed processing and storage centers | Times | 4 | 4 |
| 8. | Study of cost of production and value chain of cash crops | Times | 1 | 0 |
| 9. | Video Documentary | Times | 2 | 2 |

| | | | | |
|-----|---|-------|---|---|
| 10. | Website update | Times | 2 | 2 |
| 11. | Broadband Internet Installation | Times | 1 | 1 |
| 12. | Project IPR, FMR preparation | Times | 1 | 1 |
| 13. | Preparation and publication of agro-enterprise handbook | Times | 1 | 0 |
| 14. | Feasibility study of Seed buffer stock establishment | Times | 1 | 1 |
| 15. | Preparation and publication of business plan for seed processing and storage center | Times | 1 | 1 |
| 16. | JT/JTA level training | Times | 2 | 2 |
| 17. | Social mobilizer training | Times | 3 | 3 |
| 18. | Input dealer training | Times | 8 | 8 |
| 19. | Officer level training | Times | 2 | 2 |
| 20. | International Training on World Bank procurement procedure | Times | 1 | 1 |
| 21 | International training on ICWM | Times | 1 | 1 |
| 22 | International training on operation of Mobile Soil Testing Van | Times | 1 | 1 |
| 23 | National level workshop | Times | 1 | 1 |

| | | | | |
|-----|---|-------|---|---|
| 24. | Seed production training and quality control support for seed processing and storage center | Times | 1 | 1 |
| 25. | Sub project profile preparation and publication | Times | 1 | 1 |
| 26. | Coordination committee meeting | Times | 3 | 3 |
| 27. | Travelling Seminar | Times | 1 | 1 |
| 28. | Annual progress report preparation and publication | Times | 1 | 1 |
| 29. | Sample survey on component D activities on safeguard compliance | Times | 1 | 1 |
| 30 | Preparation and publication of manual on safe use of chemicals | Times | 1 | 1 |
| 31. | Extension of agricultural technologies | Times | 3 | 3 |
| 32. | World Bank Mission | Times | 2 | 2 |
| 33. | Inauguration and handover program of community seed processing and storage center. | Times | 1 | 1 |
| 34. | Model ICWM program | Times | 5 | 4 |
| 35. | Preparation and publication of manual of on farm water management. | Times | 1 | 1 |

36. Monitoring of sub project programs Times 15 15

37. High tech Green house demonstration Times 15 38

38. Machineries and equipment distribution to community seed processing and storage centers Times 2 0

Regional Agriculture Directorates

39. Regional level planning workshop Times 5 5

40. Regional level coordination committee meeting Times 5 5

41. Regional level sub project profile preparation and publication Times 5 5

42. Regional level monitoring Times 15 15

District Agriculture Development Offices

43. Recruitment of social mobilizers Nos. 60 60

44. ICWM seasonal planning workshop Nos. 132 127

45. Crop production demonstrations in cluster Nos. 1948 1936

46. Seed production in block Ha 575 547

| | | | | |
|-----|--|--------|-----|-----|
| 47. | Cropping pattern demonstrations | Nos. | 293 | 286 |
| 48. | Cowshed improvement in cluster | Nos. | 265 | 260 |
| 49. | Youth focus program | Nos. | 165 | 158 |
| 50. | Marginalized community focus program | Nos. | 74 | 72 |
| 51. | Off season vegetable production in plastic house | Nos. | 330 | 325 |
| 52. | District level coordination committee meeting | Nos. | 44 | 37 |
| 53. | Subproject profile preparation and publication | Times. | 44 | 35 |
| 54. | District level monitoring | Times | 720 | 709 |
| 55. | Investment support grant | Times | 73 | 47 |

Annex 3: Implementation progress-IWRMP-AF

| Major activities | Unit | Project | | Progress | | Cumulative progress | Remarks |
|---|---------|---------|-------------|-------------|---|--|---------|
| | | Target | (FY 014/15) | (FY 015/16) | E | | |
| A Demonstration | | | | | | | |
| Demonstration | Numbers | 470 | 332 | 2222 | 2554 | | |
| Cowshed Improvement | Number | 637 | 260 | 897 | NPR 5,200 per cowshed | | |
| Fish pond promotion | Number | 90 | 155 | 155 | | | |
| Plastic tunnel | Number | 437 | 325 | 762 | For high value vegetable crops with drip irrigation and fertigation | | |
| High tech Plastic tunnel | Number | | 38 | 38 | 38 system | | |
| Capacity development and extension | | | | | | | |
| Field based farmer training | Times | | 44 | 44 | 88 | | |
| Seasonal planning workshop | Times | 200 | 54 | 127 | 181 | Field based planning workshop where farmer decide on crops to grow | |
| Social mobilizer mobilization | Number | 63 | 60 | 123 | | | |
| Training to agrovet and input | Number | | 8 | 8 | 8 | | |

| | | | | | | | |
|---|--------------------------------------|--------|-----|-----|----|-----|---|
| dealer | Farmer field school | Number | 420 | 99 | 54 | 153 | On crop water management. |
| | Investment support grant | | | | | 0 | |
| Small farm machinery distribution | Sets | 299 | 289 | 47 | | 336 | |
| Development of community based resource center | Number | 150 | 18 | | | 18 | |
| | Income generation activities | | | | | | |
| Youth employment promotion | | | | | | | ach individual provided with cash of NPR 20 to 60K based on the business plan on installment basis. |
| Income generation activities of poor and marginal community | Number | 320 | 158 | | | 478 | |
| Seed production | Ha | 2500 | 419 | 49 | 72 | 121 | |
| | | | | 547 | | 966 | Mainly of paddy, wheat and maize |
| | Logistic & office support | | | | | | |
| 4 wheelers | Number | 4 | 4 | 10 | | 14 | Distributed to project districts (DADOS), RAD and Government |
| 2 wheelers | Number | 50 | 50 | | | 50 | Resource Center |
| | Strengthening M and E | | | | | | |
| Strengthening extension-distribution computer set to ASCs | grassroot level of | Number | 200 | 44 | 12 | 56 | One set computer with power backup system each for Agriculture Service Centres |

**Annex 4: Year-wise procurement details of IWRMP-AF till F/Y
2015/2016**

| Fiscal Year | S.N. | Procurement Activities |
|--------------------|-------------|---|
| 2014/2015 | | (A) Category: Goods |
| | 1 | Procurement of two wheelers (motorbikes) 50 units |
| | 2 | Procurement of Double Cab Pickups 3 units |
| | 3 | Procurement of Service Utility Vehicles 1 units |
| | 4 | Procurement of Office Equipment: Branded Desktop Computer 10 units, Laptop 15 units, Scanner 5 units, Photocopy Machine 2 units, Laser Printer 10 units and Digital Camera 10 units |
| | 5 | Procurement of Tractor 1 unit |
| | 6 | Procurement of Office Equipment (Laptop 1, Global Positioning System (GPS) 1, Power Bank 2, External Hard Disk 500GB 2 and Digital Camera 1) |
| | | (B) Category: Non-Consulting Services |
| | 1 | 7 days training on "Enterprise and Value Chain Development for 5 Officials |
| | 2 | Updating of websites |
| | 3 | Service for Internet Connection (1mbps/1mbps) |
| 2015/2016 | | (A) Category: Goods |
| | 1 | Procurement of farm & lab equipment along with Atomic Absorption Spectrophotometer for Government Resource Center and Program Directorate |
| | 2 | Procurement of office equipment with solar power backup system for 12 Agricultural Service Centers |
| | 3 | Flooring & Furnishing in newly shifted Office Building-1 |
| | 4 | Flooring & Furnishing in newly shifted Office Building-2 |
| | | (B) Category: Consulting Services |
| | 1 | Consultancy services for feasibility study for establishment of buffer stock of cereal seeds. |

- 2 Preparation of Operational and Business plan for Community Based Seed Production Centers in Jhapa, Nawalparasi, Rupandehi and Bardia
- 3 Individual Consultant for providing technical inputs and necessary guidance to Community Managed Seed Processing and Storage Centers in Jhapa, for production of quality seeds and its marketing.
- 4 Individual Consultant for providing technical inputs and necessary guidance to Community Managed Seed Processing and Storage Centers in Bardia, for production of quality seeds and its marketing.

(C) Category: Non-Consulting Services

- 1 Preparation of video documentary project activities
- 2 Updating website of the Project and web hosting
- 3 Installation of internet service
- 4 Services for preparation of project IPR and project account

(D) Category: Community Participation Project

- 1 Model Agriculture Development Program through WUA in Jhapa
 - 2 Model Agriculture Development Program through WUA in Shyanja
 - 3 Model Agriculture Development Program through WUA in Dang
 - 4 Model Agriculture Development Program through WUA in Kanchanpur
 - 5 Construction of poly houses with fertigation system in Salyan
-

Annex 5: Details about the area and production of seed in the project area

| Crop | FY 2014/15 | | FY 2015/16 | | Cumulative | |
|--------------|------------|-------------|------------|---------------|------------|----------------|
| | Area, | Production, | Area, | Production, | Area, | |
| | Ha | Mt | Ha | Mt | Ha | Production, Mt |
| Paddy | 139 | 458.5 | 145 | 507.5 | 284 | 966 |
| Maize | 125 | 372.5 | 124 | 372 | 249 | 744.5 |
| Wheat | 75 | 310 | 188 | 733.2 | 263 | 1043.2 |
| Potato | 80 | 1160 | 90 | 1350 | 170 | 2510 |
| Total | 419 | 2301 | 547 | 2962.7 | 966 | 5263.7 |

Annex 6: Participants of international training conducted in FY 2015/16

1. Integrated crop and water management training, Israel (6-11 Feb, 2016)

| Name | Designation | Organization |
|----------------------------|---|--|
| Mr. Prakash Raj Bista | Senior Agriculture Officer | Irrigation and Water Resource Management Project, Kumaripati |
| Mr. Rajesh Kumar K.C. | Senior Horticulture Development Officer | Regional Directorate of Agriculture, Dipayal |
| Mr. Jitendra Yadav | Senior Agriculture Development Officer | District Agriculture Development Office, Bara |
| Mr. Shiva Ratna Sah | Senior Agriculture Extension Officer | Regional Directorate of Agriculture, Biratnagar |
| Mr. Mukti Prasad Neupane | Chief Financial Controller | Department of Agriculture, Harihar Bhawan |
| Mr. Tilak Raj Chaulagai | Planning Officer | District Agriculture Development Office, Rolpa |
| Mr. Madhav Prasad Lamsal | Agriculture Extension Officer | District Agriculture Development Office, Kaski |
| Mr. Yadav Padhyoti | Agriculture Economist | Ministry of Agriculture Development, Singhdarbar |
| Ms. Rukmini Devi Bhattarai | Administrative Assistant | National Industrial Crop Development Program/Department of Agriculture, Harihar Bhawan |
| Mr. Haridutta Joshi | Junior Technician | District Agriculture Development Office, Darchula |
| Mr. Purna Bahadur Thapa | Junior Technician | Regional Directorate of Agriculture, Surkhet |
| Mr. Rishi Roka | Junior Technician | District Agriculture Development Office, Gorkha |
| Mr. Madhab Singh Bist | Sub-engineer | Irrigation and Water Resource Management Project, Kumaripati |

2. Training Program on Handling and Operating of Mobile Soil Testing Van,
India (11-16 Oct, 2015)

| S.N | Name | Designation | Organization |
|-----|----------------------------|-------------------------------|---|
| 1 | Mr. Ram Dular Yadav | Senior Soil Scientist | Regional Soil Testing Laboratory, Hetauda |
| 2 | Mr. Nisar Ahamad Khan | Soil Scientist | Regional Soil Testing Laboratory, Pokhara |
| 3 | Mr. Ashwini kumar Sharma | Soil Scientist | District Agriculture DevelopmentOffice, Rupandehi |
| 4 | Mr. Digambar Yadav | Soil Scientist | District Agriculture Development Office, Dang |
| 5 | Ms Manita Thapa | Agriculture Extension Officer | Directorate of Soil Management, Hariharbhawan |
| 6 | Mr. Ram Ashis Yadav | Soil Scientist | Regional Soil Testing Laboratory, Jhumka |
| 7 | Mr. Govinda Singh Saud | Junior Technician | Regional Soil Testing Laboratory, Shundarpur |
| 8 | Ms Kalpana Karki | Junior Technician | Directorate of Soil Management, Hariharbhawan |
| 9 | Mr. Dayamuni Bajracharya | Agri-economist | Irrigation and Water Resource Management Project, Hariharbhawan |
| 10 | Mr. Rishikesh Jha | Junior Technician | Irrigation and Water Resource Management Project, Hariharbhawan |
| 11 | Mr. Devendra Bahadur Thapa | Junior Technician | Department of Agriculture, Hariharbhawan |
| 12 | Diwas Raj Bista | Agriculture Extension Officer | Ministry of Agriculture Development, Singhdarbar |

3. Procurement Management of goods, physical services and consulting services Training, Italy (11-22 April, 2016)

| S.N. | Name | Designation | Organization |
|------|-----------------------------|-----------------------------|---|
| 1 | Mr. Chaitya Narayan Dangol | Senior Agriculture Engineer | Irrigation and Water Resource Management Project/ Department of Agriculture |
| 2 | Mr. Krishna Prasad Timshina | Under-secretary, Account | Ministry of Agriculture Development |
| 3 | Mr. Binod Bhattarai | Account Officer | Irrigation and Water Resource Management Project/ Department of Agriculture |

ANNEX7. Year wise targeted activities set for planning process of Additional financing to IWRMP

| S.N. | Activities | Unit | 1st year | 2nd year | 3rd year | Total |
|---|---|-----------|----------|----------|----------|-------|
| | | | Target | Target | Target | |
| A On Farm Water Management | | | | | | |
| A.1 | Integrated Crop-Water Seasonal Planning | No. | 70 | 200 | 200 | 470 |
| A.2 | ICWM Farmer Field School Demonstration on Water | No. | 120 | 150 | 200 | 470 |
| A.3 | Storage and Harvesting Techniques | No. | 100 | 100 | 100 | 300 |
| A.4 | Cropping Pattern Demonstration | No. | 120 | 150 | 200 | 470 |
| B Crop Production and Marketing | | | | | | |
| B.1 | Community based Seed Production Program | Ha. | 500 | 1000 | 1000 | 2500 |
| B.2 | Demonstration on sustainable Soil Management Practices | No. | 120 | 150 | 200 | 470 |
| B.3 | <i>Income Generating Activities</i> Promotion of Commercial Vegetable | | | | | |
| B.3.1 | Production(piloting) | No. | 5 | 15 | 10 | 30 |
| B.3.3 | Fish Production and Promotion Support | No. | 50 | 75 | 75 | 200 |
| C Training and Capacity Building | | | | | | |
| C.1 | Technical Assistance (TA) for Program Implementation | Man Month | 15 | 15 | 15 | 45 |

| | | | | | | |
|----------|---|-------|-----|-----|-----|-----|
| C.2 | <i>Staff Training for "On-Farm Water Management"</i> | | | | | |
| C.2.1 | Officer Level Training (National) | No. | 1 | 1 | 1 | 3 |
| C.2.2 | Non Officer Level Training (National) | No. | 1 | 1 | 1 | 3 |
| C.2.3 | Farmer Level Training | No. | 2 | 2 | 2 | 6 |
| C.3 | <i>Cross Visit/Seminar/Conferences</i> | | | | | 0 |
| C.3.1 | National Level | No. | 1 | 1 | 1 | 3 |
| C.3.2 | International Level | No. | 1 | 1 | 1 | 3 |
| C.3.3 | Retreat | No. | | 1 | 1 | 2 |
| C.4 | <i>Exposure Visit</i> | | | | | 0 |
| C.4.1 | Exposure Visit within the Country. | No. | 35 | 32 | 32 | 99 |
| C.5 | Support to Resource Centres for the Production of quality Source Material | Times | 1 | 1 | 1 | 3 |
| C.6 | Social mobilization through ISP level Agri Extension Workers | No. | 60 | 60 | 60 | 180 |
| D | Investment Support | | | | | 0 |
| D.1 | Development of Community Based Resource Centre (Market Structure, Nursery, Processing and Post Harvest Support Units). | No. | 30 | 60 | 60 | 150 |
| D.2 | Promotion of Agricultural Mechanization on Cost sharing basis (Subsidy on Power tiller, seed drill, thresher, fan, tractor, rotavetor etc. | No. | 100 | 100 | 100 | 300 |

| | | | | | | |
|------------|--|-----|-----|----|----|-----|
| E | Logistic and Office Support | | | | | |
| <i>E.1</i> | <i>Vehicles and Office Equipments</i> | | | | | |
| E.1.1 | 4 Wheelers | No. | 5 | | | 5 |
| E.1.2 | 2 Wheelers | No. | 50 | | | 50 |
| E.1.3 | Office equipment Computer, Laptop, Printer and other | set | 25 | 25 | | 50 |
| F | Strengthening M and E | | | | | |
| | National, Regional Level | | | | | |
| F.1 | Experience sharing | | | | | |
| | Workshop | No. | 6 | 6 | 6 | 18 |
| F.2 | Strengthening grass root level e-extension | No. | 120 | 50 | 30 | 200 |
| F.3 | Preparation of Success Stories and Documentaries | No. | 2 | 2 | 2 | 6 |
| F.4 | Regular Press Meet | No. | 4 | 4 | 4 | 12 |

ANNEX 8 Approved program of FCRP for FY 2072/73

| S.N. | Activities | Unit | Target | Budget, NPR 000000 |
|---|---|--------|--------|--------------------------|
| Project coordinator's office | | | | |
| 1 | Community Seed Bank Establishment | Nos. | 10 | 350 |
| 2 | Small Farm Machineries Distribution | Times | 4 | 130 |
| 3 | Progress Report Publication | Nos. | 1 | 1 |
| 4 | Monitoring and Evaluation | LS | | 7.06 |
| 5. | Office management | LS | | 11.54 |
| District Agriculture Development Offices | | | | |
| 6. | Orientation workshop on relief program | Nos. | 4 | 5 |
| 7. | DDRC meeting | Nos. | 12 | 7.52 |
| 8. | One day orientation training to target households | Nos. | 36 | 18 |
| 9. | Mobilization of LRP | M'days | 1500 | 9 |
| 10. | Livestock shed rehabilitation/ construction | Nos. | 6000 | 1500 |
| 11. | Progress review and public hearing | Nos. | 4 | 5 |
| 12. | Monitoring and evaluation | Nos. | 1500 | 15 |
| 13. | Progress Report publication | Nos. | 4 | 1.2 |
| 14. | Office management | LS | | 14.64 |
| Total | | | | 2074.96 |

Annex 9 Major activities to be conducted in FY 2016/17

| S.N. | Activities | Unit | Quantity | Budget, NPR'000 |
|-------------------------------------|---|-------|----------|-----------------|
| Project Coordinator's Office | | | | |
| 1 | Procurement of mobile soil testing van | No | 4 | 40000 |
| 2 | Preparation of ICWMP FFS manual | Times | 1 | 600 |
| 3 | Effectiveness study of community based seed processing & storage centers | Times | 1 | 3000 |
| 4 | Impact study of ICWM program of IWRMP | Times | 1 | 4000 |
| 5 | Feasibility study of the establishment of seed buffer stock in Nepal | Times | 1 | 500 |
| 6 | Capacity building activities | | | |
| 6.1 | Training on project account system | Times | 3 | 2100 |
| 6.2 | Training on integrated crop and water management (foreign country) (20 participants) | Times | 1 | 5500 |
| 6.3 | Training on on-farm water management for JT/JTA | Times | 2 | 1000 |
| 6.4 | Training for social mobilisers | Times | 2 | 1000 |
| 6.5 | Training on procurement (Foreign country) | Times | 1 | 2500 |
| 6.6 | Participation in international | No | 1 | 3000 |

training/workshop (12 participants)

| | | | | |
|----|--|-------|---|------|
| 7 | Progress review workshop | No | 1 | 600 |
| 8 | Publication of reference manual on safe use of pesticides and seed quality control | Times | 1 | 300 |
| 9 | High tech poly house demonstration | Times | 2 | 4000 |
| 10 | Orientation program on model program | Times | 4 | 2000 |
| 11 | Travelling seminar | Times | 1 | 700 |
| 12 | Publication of annual progress report | Times | 1 | 300 |
| 13 | Mission field visit | Times | 2 | 200 |
| 14 | Coordination meeting | Times | 3 | 300 |
| 15 | Preparation of documentary on project activities and outputs | Times | 2 | 500 |

**Regional Agricultural
Directorates (5)**

| | | | | |
|---|--|-------|---|------|
| 1 | Regional level impact study | Times | 5 | 300 |
| 2 | Regional level program planning workshop | Times | 5 | 2500 |
| 3 | Regional level coordination meeting | Times | 5 | 1250 |
| 4 | Travelling seminar | Times | 1 | 500 |

**District Agriculture Development
Office (44)**

| | | | | |
|---|----------------------------------|----|----|------|
| 1 | Recruitment of social mobilisers | No | 67 | 5360 |
|---|----------------------------------|----|----|------|

2 Capacity building activities

| | | | | |
|-----|---|-------|------|-------|
| 2.1 | Farmer's training | Times | 41 | 3075 |
| 2.2 | Field level training on safe use of pesticides | Times | 181 | 926 |
| 3 | Livestock shed improvement | No | 389 | 2011 |
| 4 | Seasonal planning workshop | No | 135 | 3930 |
| 5 | Seed production program | Ha | 634 | 3773 |
| 6 | Model program through WUAs | No | 5 | 7500 |
| 7 | Sub-project level impact study | Times | 44 | 1320 |
| 8 | Cash crop production & income generation activities | No | 289 | 13700 |
| 9 | Demonstration on poly house vegetable farming | No | 206 | 8240 |
| 10 | Production demonstration | No | 1620 | 13840 |
| 11 | Farm mechanization support | Times | 17 | 9180 |

Annex 10 Manpower working at Project Coordinator's Office

| S.N. | Name | Designation |
|-------------|----------------------------|----------------------------|
| 1 | Mr. Rajendra Prasad Mishra | Project Coordinator |
| 2 | Mr. Prakash Raj Bista | Senior Agriculture Officer |
| 3 | Mr. Chaitya Narayan Dangol | Senior Agriengineer |
| 4 | Mr. Binod Bhattarai | Account Officer |
| 5 | Mr. Dayamuni Bajracharya | Planning Officer |
| 6 | Mr. Hrishikesh Jha | Junior Technician |
| 7 | Mr. Chinta Narayan Khanal | Junior Technician |
| 8 | Mr. Shyam Prasad Ghimire | Accountant |
| 9 | Ms Gauri Adhikari | Administrative Assistant |
| 10 | Ms. Sabitri Ghimire | Junior Technician |
| 11 | Mr. Madhav Singh Bist | Overseer |