

IRRIGATION AND WATER RESOURCES MANAGEMENT PROJECT
(IDA Credit Nos. 4515-NP, 5344-NP and IDA Grant Nos. H338-NP and H902-NP)
14th Implementation Review and Support Mission
May 7 to 19, 2015
Aide Memoire

I. Introduction

1. A World Bank team (the Team)¹ led by Purna Chhetri (Task Team Leader) conducted the 14th implementation review and support mission for the Irrigation and Water Resources Management Project (IWRMP) from May 7 to 19, 2015, preceded by a field visit to Rolpa, Pyuthan, and Dang Districts from April 14 to 21, 2015. The objectives of the mission were to: (i) review the implementation progress since the last mission in November 2014; (ii) identify issues that impeded project progress and work out solutions to such issues; and (iii) discuss detailed work plan for the next reporting period (July – December 2015). The Team would like to thank all the participants for their continued cooperation and constructive discussions. List of persons met in Kathmandu and in the field is presented in Annex 1.
2. The AM was discussed at a wrap-up meeting chaired by Mr. Madhav Belbase, Director General of the Department of Irrigation on May 19, 2015 which was subsequently briefed to the Secretary of Irrigation Mr. Madhav Prasad Regmi. the ratings for likelihood of achieving project development objective remain “Satisfactory”, and for implementation progress “Moderately Satisfactory”. Recognizing the overall improvement in safeguards management and financial management, the ratings for safeguards and financial management have been upgraded from “Moderately Unsatisfactory” to “Moderately Satisfactory”. As agreed at the wrap up meeting, this AM will be classified as public document under the World Bank’s Access to Information Policy.
3. This mission took place immediately after the earthquake disaster of April 25 and May 12, 2015. A quick assessment by the Office of the Project Director (OPD) revealed that only about 12 project schemes in Syangja, Gorkha, Kaski and Baglung districts have been affected, the repair of which is estimated to cost around US\$ 300,000 which could be financed from within the available funds. However, the actual scenario and impact of earthquake will be known after the monsoon. Several earthquake-triggered fresh landslides are expected which are likely to damage more irrigation schemes, agricultural fields and rural roads. As an immediate response, in response to the request of the Government of Nepal (GoN), the Bank has already restructured the project to extend the closing date of the original project (IDA Grant No. H338-NP) and the first Additional Financing (AF) (IDA Credit No. 4515-NP) to allow completion of works from the main phase that were to be completed by June 30, 2015. Funds from IDA Credit No. 4515-NP will be utilized for supporting rebuilding agricultural activities in the project area. The activities to be supported include construction of animal shelters, supply of seeds, farm implements and storage bins, within the framework of the Post-Disaster Needs Assessment (PDNA) report. The project also supported the DoI by making arrangement to depute consultants from the project to participate in assessment of PDNA of irrigation sub sector in the field.

¹The Bank team comprised Messrs./Mmes.: Purna Bahadur Chhetri (TTL/Senior Rural Development Specialist); Drona Raj Ghimire (Environmental Specialist); Shambhu Prasad Uprety (Senior Procurement Specialist); Ramesh Raj Bista (Procurement Specialist); Yogesh Malla (Financial Management (FM) Specialist); Bandita Sijapati (Safeguards consultant); Pradeep Shrestha (FM Consultant); Shyam Sundar Ranjitkar (Irrigation/Water Resources Engineer, FAO Consultant); Tara Shrestha (Program Assistant)

II. Key Project Data

Project Data		Project Performance Ratings		
			Last	Now
Board Approval (original project) (Additional Financing 1) (Additional Financing 2)	December 6, 2007 September 29, 2008 December 23, 2013	Achievement of PDO	S	S
Effectiveness date (original project) (Additional Financing 1) (Additional Financing 2)	April 24, 2008 January 30, 2009 April 10, 2014	Implementation Progress	MS	MS
Original Closing date (original) (Additional Financing 1) (Additional Financing 2)	June 30, 2015 June 30, 2015 June 30, 2018	Project Management	S	S
Revised Closing date (original) (Additional Financing 1)	June 30, 2016 June 30, 2016			
MTR date (Actual)	September 26, 2010	Procurement	S	S
Total Credit/Grant Amount	USD114.24 million ²	Financial management	MU	MS
Amount disbursed (As of June 30, 2015) (% disbursed)	USD68.25 million (60%)	Safeguards	MU	MS
		M & E	MS	MS
		Counterpart Funding	S	S

Notes: S- Satisfactory; MS – Moderately Satisfactory; MU – Moderately Unsatisfactory.

III. Achievement of Project Development Objectives

- The project development objective (PDO) of IWRMP is to improve irrigated agricultural productivity and management of selected irrigation schemes and enhance institutional capacity for integrated water resources management. The original project has completed rehabilitation of 114 Farmer-Managed Irrigation Schemes (FMIS) out of planned 134 schemes. Except for few, the remaining schemes were expected to be completed by June 30, 2015, but this will not be feasible anymore after the earthquake disaster that slowed down construction works. Essential Structural Improvement (ESI) works in Agency-Managed Irrigation Schemes (AMIS) in Kankai, Sunsari, Morang, Narayani, and Mahakali have registered above 80 percent completion rate, but for the same reason the works were not expected to be completed by the original closing date. The support to agricultural development has yielded good results in the completed irrigation schemes. Data from a sample of completed schemes across project sites has shown that cropping intensities have increased from 168 to 220 percent and yields of the major crops rice, wheat, maize, and potato have increased, respectively by 52, 53, 53, and 51 percent over the baseline. The earthquake has affected a small number of the project schemes (the exact number is not yet known as inspections and surveys are still ongoing), crops in storages have been damaged, wheat crops remains standing in the field, and shortage of rice seeds is likely to impact paddy planting during the 2015 cropping season. GoN requested extension of closing date for original project (IDA Grant No. H338-NP) in order to allow completion of civil works and for first AF (IDA Credit No. 4515-NP) to enable the project to respond to government to support rebuilding of agriculture needs. Accordingly, the restructuring proposal for one year closing date extension was approved by the Bank on

² Original amount of USD50 million grant funding approved on December 6, 2007; Additional financing of USD14.3 million credit from Global Food Crisis Response Program approved on September 29, 2008; and second additional financing of USD50 million approved on December 23, 2013.

June 19, 2015. IDA Credit No. 4515-NP was added as AF in 2008 in order to respond to emergency associated with food crisis in 23 food deficit districts. Progress under the AF has been good with 64 projects under implementation out of planned 83. Three management transfer agreements have been signed for Narayani Block 2 (3000 ha); Sunsari Morang at Ranigunj Branch (6800 ha) and Mahakali phase 2 (6500 ha). Consultant selection for river basins management plan under component 3 is under progress and agricultural activities continue to support the command area farmers with new and improved technologies. The project is maintained as “Satisfactory” on progress towards achieving PDO.

IV. Implementation Progress

5. IWRMP has been under implementation since 2008 in the three western development regions and the *Terai* (Southern plains) Region. The original project and the second AF have four components: (i) Irrigation Infrastructure Development and Improvement; (ii) Irrigation Management Transfer; (iii) Institutional and Policy Support for Improved Management; and (iv) Integrated Crop and Water Management. A detailed account of implementation progress for each component is presented below and status of agreed actions from the last mission in Annex 2. Overall, project implementation progress is maintained as “Moderately Satisfactory”.

Component A: Irrigation Infrastructure Development and Improvement

6. Under the original scope, 114 Farmer Managed Irrigation System (FMIS) out of planned 134 have been completed providing irrigation to 14,195 hectares. Work on 20 schemes is ongoing that was expected to be completed by June 30, 2015, is not feasible anymore due to the earthquake disaster which has slowed down construction work in the field. One additional construction season would be needed to complete most of the ongoing contracts. WB team has noted inherent delay in completion of Bande Danda irrigation scheme in Kailali. Office of the Project Director (OPD) has been advised to accord close vigilance to this project that has been outstanding for a long time.
7. Under the AF, all the 83 schemes to be supported under the AF have been appraised by the Project Implementation and Coordination Committee (PICC). Of these, 42 are already under implementation with two schemes reported as complete. Among the remaining 41 schemes, the reported progress is: (i) six schemes are 80 percent complete; (ii) 10 are between 50 to 80 percent; and (iii) 25 schemes are under 50 percent.
8. The Bank Team and the project staff along with representatives from the National Planning Commission and the Ministry of Finance (MoF) visited the project sites in Pyuthan, Rolpa, Dang, and Rupendehi Districts during the period of April 14 to 21, 2015. The team was pleased to note that the quality of construction of most of the hill schemes is satisfactory and the farmers are generally satisfied with the irrigation facilities provided to them. In terms of logistics, The OPD has successfully procured and dispatched to the concerned field offices vehicles as agreed during the last mission. The WB team recommended to retain one such vehicle at OPD for periodic field inspection visits by OPD staff. Annex 3 (A) provides progress under Component A.

Component B: Irrigation Management Transfer

9. The main objective of this component is to transfer management functions to Water User Associations (WUAs) of the four Agency Managed Irrigation Schemes (AMISs). This would mean developing the capacity of the WUAs to enable them to take care of lower order canals

handed over to them, raise irrigation service fee for operation and maintenance of canals, and ensure water distribution is equitable. Essential structural improvements (ESI) works in Kankai (7000 ha); Sitagunj (7800 ha); and Narayani Block 8 (3,000 ha) irrigation systems are complete. ESI work at Mahakali phase 1 package 2 has been very slow. The reason provided was that the contractor submitted a low bid to win the contract and now is financially unable to complete the work. OPD has informed that in case the contractor is unable to resume the work, the project will terminate the contract and a new bid will be called. Ten training courses were organized for WUA members on various skills and performance assessment of project trained WUAs have been done for all the four AMIS. In addition to these, orientation training on parcellary maps at Kankai Irrigation System (KIS) and Mahakali Irrigation System (MIS) (ongoing) have been organized and (v) training on irrigation service fee (ISF) collection, leadership development, office management, account keeping, canal Operation and Maintenance (O&M) organized for 1,676 WUA members (23 percent female). While ISF collection has been found to be encouraging in KIS and MIS, it is still low in Narayani Irrigation System (NIS) and Sunsari Morang Irrigation System (SMIS). Under AF, as indicated in the preceding paragraph, three management transfer agreements have been signed one each for Narayani Block 2, Sunsari Morang Ramganj Branch and Mahakali Phase 2 have been signed (see Annex 3 (B) for details). The estimate of works for Sunsari Morang Ramganj Branch is under review at OPD, IWRMP, whereas that for Mahakali Phase 2 has been approved. The tender for works has already been published in case of Narayani Irrigation System Block 2. The works in all three schemes are expected to commence in FY16 sometime in July 2015.

10. The ESI works in Mahakali Phase I Block C have been completed under IWRMP original scope. However, water delivery was not seen to be satisfactory during the field visit (mainly due to water theft and amicable water allocation) and hence this part of the Project should be kept under constant monitoring to achieve the required results.

Component C: Institutional and Policy Support for Improved Water Management

11. *Progress Status.* This component is implemented through the Water and Energy Commission Secretariat (WECS). The annual program to prepare basin plans for Karnali, Gandaki, Babai and West Rapti rivers has been approved by the government. The budget allocation for FY16 is NPR 44.653 million. The procurement plan, terms of references, cost estimates, notice for expression of interest (EoI) and short-listing criteria have been approved by the Bank. The notice for EoI was published on September 29, 2014 with a due date of October 28, 2014. Five consulting firms were shortlisted. However, only three firms submitted the proposals. The technical evaluation of the firms has been completed. In the meantime, a written complaint was filed by one of the short-listed firms. While the complaints has been looked into and addressed, guided by WB Task Team, this has somehow delayed the processing of hiring consultants. WECS now requires to complete financial and final evaluation of the proposals, and submit negotiated draft contract to the Bank for review. Detailed progress has been presented in Annex 3 (C).

Component D: Integrated Crop Water Management

12. *Progress status:* Key progress under agriculture component include the near completion of four cooperative seed storage and processing facilities at Bardia, Nawalparasi, Rupendehi, and Kankai Districts. The need to help these cooperatives develop business and operational plans, an outstanding activity from the preceding mission, has been re-emphasized. The Team has been assured that the plans will be developed within this calendar year and a full time

graduate level technical officer will be attached to each center for one year once they come into operation. Through 85 farmer field schools (FFS) over 2,000 farmers have learned new techniques on improved farming practices and tested the performance of improved varieties. Fifty seasonal planning workshops and 214 legume based crop demonstrations were organized. As part of improved seed distribution, a total of 591 metric tons of seeds (546 MT of rice; 4 MT of potato tubers; 2.8 MT of lentil, and 0.6 MT of oil seed) were produced covering an area of 280 ha. Around 176 youths, including 41 members from vulnerable communities, were provided with group based grant support of USD600 each for agriculture based income generating activities. Under livestock activities, 390 cowsheds were constructed as part of improved animal keeping and make use of animal waste as farm yard manure. Farm equipment comprised of power tillers, winnowers, thrashers, etc. were provided to farmer groups.

13. It has been agreed that agricultural component will now implement its activities through the WUAs. This will help the component to concentrate on project command area. It is proposed that under the leadership of WUAs, a sub committee comprised of progressive farmers, selected by the WUAs will be formed. Through these committees, agricultural program will be implemented. Members of these committees will be trained in required skills to develop command area development plan for agriculture which will take into account: (1) availability of water; (2) market demand; (3) farmer needs; and 4) post-harvest support. This approach will be implemented in four locations.
14. Field observations revealed the need for: (1) greater coordination between Components B and D for implementing agricultural training activities and data collection (crop cutting samples, productivity increases); (2) further improvement on crop water management been agreed that the project will assign a graduate level technician to each of the four seed processing facilities for a period of one year once it starts operating. At the field level, the performance and contributions of part time field mobilizers have been found to be highly useful, relevant and well appreciated by farmers. The WB team advised the Project Team to engage them on full-time basis. In sub-projects with large command area and many households, more than one mobilizer may be engaged. Activities to engage and absorb youth in agricultural activities through the provision of grant has been found to be useful, effective and relevant. Annex 3 (D) provides progress against target for agricultural activities. Considering the high demand for agricultural services in the field, these front line staff will be trained in skills such as crop water management, agronomy, storage and marketing aspects to help the farmers at the field level.

V. Procurement

15. The Team reviewed the implementation of the procurement plan. DoI has received proposals from short-listed consultants for technical assistance under Component B. Evaluation Committee is undertaking the evaluation of the technical proposals. It is expected that the technical evaluation report will be submitted to the Bank for review by June 30, 2015. DoI has published notice inviting Expression of Interest (EoI) for the technical assistance under Component A. There have been requests from consultants for the extension of deadline for submission of EoI due to the earthquake disaster. It was agreed that the DoI would submit the draft Request for Proposal (RFP) along with the short-listing of firms to the Bank for review by June 30, 2015. There has been satisfactory progress in the procurement of civil works contracts under Component A of the AF. Out of 83 sub-projects, 64 contracts have been awarded. The Department of Agriculture (DoA) has completed almost all procurement

activities of which four construction contracts and supply of related equipment will be partially completed within the IWRMP project period and remaining part of the contracts will be carried forward (about 4 percent of the DoA Component amount) to the next phase of the project as agreed in earlier mission. WB has provided no objection to the technical evaluation report for the consulting services for the preparation of basin plan for Karnali, Gandaki, Babai, and West Rapti Basins. WECS now requires to complete financial and combined evaluation of bids submitted, and negotiations with the best ranked firm. Based on continuing good progress, procurement performance rating is retained as **"Satisfactory"**.

VI. Social and Environmental Safeguards

16. Social and Environmental Management Plans (SEMP) of 41 sub-projects under AF have been approved and mitigation measures are being implemented. Under Component B, implementation of SEMP for Sitaganj and Narayani Block 8 have commenced, and draft SEMP have been prepared for three sub-projects under Component B of AF and their recommendations are being used to finalize the detailed engineering designs and costings of respective sub-projects. A disaggregated analysis of SEMP evaluation under Component A is complete and a similar evaluation of sub-projects under Component B will be conducted by August 2015, and a consultant for second round of evaluation under Component A will be hired by December 2015.
17. Periodic monitoring of SEMP implementation under Components A and B is currently done by the respective Regional Directorate as well as the Social, Environmental and Climate Change Division (SECCD) of the DoI. As agreed during the previous mission, OPD has completed the recruitment of five social development consultants to support the screening and monitoring work. As an interim measure, an environmental consultant has also been hired until the TA Consultant team, which includes environmental specialist, is on board. The OPD also included a dedicated session on 'Safeguard Policy and SEMP' during its regular training cum workshops organized in three regions in February and March 2015 under Components A and B.
18. The project has been making important progress in terms of ensuring project benefits to vulnerable groups like women, Dalits and indigenous people, and involving them in orientation and WUA training activities. Likewise, sample Institutional Development Plans for nine sub-projects have been prepared and shared with the WB team for inputs.
19. Following discussions with the WB team based on the review of the screening checklists and the SEMP prepared, the absence of specific actions under gender development plan, indigenous people development plan, and the review of non-compliance issues identified by the evaluation report, OPD has developed an Action Plan to address these concerns. However, lack of effective grievance redress mechanism, records of land donation/acquisition, and process for information disclosure, remain a concern. It has been agreed that the OPD will send out a circular to all WUAs and SPs to provide details on the land donation/acquisition status and compile the information by June 2015. Further, the OPD in close coordination with the WB safeguard specialists, will organize a workshop to review safeguards issues and agree on steps forward.
20. In consideration with the progress made on the agreed actions, the safeguard performance is upgraded to **"Moderately Satisfactory"**.

VII. Financial Management (FM) and Disbursement

Department of Irrigation

21. The expenditures incurred up to April 13, 2015 are about NPR 423.62 million or about 26 percent of the approved budget of FY15. The Team noted that the budget for GoN counterpart was sufficient. The project has maintained the required ledgers, including program ledgers, grant register, and designated Account Ledger in Excel. The internal audit of the PDO of FY15 has not been conducted. Based on the Bank's Statement of Expense (SoE) review, the Team noted some weaknesses in the contract management such as expiry of advance guarantees and performance guarantees obtained without VAT. The Team has suggested to take remedial actions. There are no pending trimester progress reports. The audit report of FY2013/14 has been received with unqualified audit opinion.

Department of Agriculture

22. The expenditures incurred up to April 13, 2015 is about NPR 127.02 million or about 44 percent of the approved budget of the FY15. The Team noted that the budget for GoN counterpart was sufficient. The Team noted that DoA has maintained and updated the required ledgers including program ledgers, Grant Registers, and Designated Account Ledger in Excel. Based on our SoE review, the Team noted some weaknesses in contract management such as, performance bonds obtained for only six months instead of one year. Internal audit of Project Coordination Office for FY15 has not been conducted. There are no pending trimester progress reports. The audit report of FY2013/14 has been received with unqualified audit opinion.
23. Total disbursements as of June 30, 2015 are USD 68.25 million (USD47.57 million from IDA Grant and USD20.68 million from IDA Credit), about 60 percent of the allocated amount for the original phase. Based on progress made observed in financial management, the performance rating for financial management is upgraded to **"Moderately Satisfactory"**.

VIII. Next Mission

24. The next implementation support mission will take place in December 2015 during which the team will review the progress in outstanding civil works from the original phase, and progress achieved under AF. During this mission, the team will also assess the post monsoon damage to irrigation systems and cultivable lands and discuss appropriate actions. Agreed actions for the next reporting period has been summarized in Annex 4.

List of People Met

Ministry of Agriculture Development

Mr. Madhav Prasad Regmi, Secretary

Department of Irrigation

Mr. Madhav Belbase, Director General

Department of Agriculture

Dr. Yubak Dhoj G.C., Director General

Regional Directorate Office (Irrigation) – Pokhara

Ms. Sarita Dawadi, Director

Regional Directorate Office (Agriculture) – Pokhara

Mr. Lekh Nath Acharya, Director

Regional Directorate Office (Irrigation) – Baglung

Mr. Mahesh Chaudhari, Sr. Engineer

Mr. Shyam Prasad Panday, Sr. Engineer

Mr. Shankher Budathoki, Sr. Engineer

Mr. Tulsi Sapkota, Sr. Engineer

District Agriculture Development Office-Baglung

Mr. Binod Hamal, District Agriculture Development Officer

Mr. Biplav Adhikari, Agriculture Extension Officer

Worgati Irrigation Scheme-Baglung

Mr. Ram Raj Ghimire, Chairperson

Mr. Gadar BK, Vice Chairperson

Mr. Dhal Bahadur KC, Secretary

Regional Directorate WDR - Pokhara

Mr. Bhupendra Gaucha, Sr. Irrigation Engineer

Mr. Bimal Ram Hewaju, Sr. Sociologist

Durgaphant Irrigation Scheme - Argkhakhanchi

Mr. Pitamber Gautam, Chairperson
Mr. Tikar Ram Koirala, Secretary

Gherdi Khola Irrigation Scheme - Gulmi

Mr. Bim Lal Neupane, Chairperson
Mr. Dilli Raj Neupane, Vice Chairperson
Mr. Rishi Ram Neupane, Vice Chairperson

Status of Agreed Actions from last ISM

S.No	Action	By whom, deadline	Revised deadline	Status
	Component A			
1	Completion of 20 FMIS from the original phase by June 2015	OPD, IWRMP	June 30, 2015	Up to 50% = 4 SPs 51-80% = 9 Sps >81% = 7 SPs
2	Recruit three individual consultants in each region for technical backstopping	OPD, IWRMP	December 30, 2014	Completed
3	Completion of 4 schemes in Surkhet that were inadvertently reported as complete.	OPD IWRMP	Immediate	Except in Sukatiya of Kalikot, works are in progress in the rest.
	Component B			
4	Complete selection of individual consultants	OPD IWRMP	NA	Completed
5	Initiate water allocation plans for 2ndary canals as precursor to extending the canal operating plan to secondary level	OPD IWRMP	December 2014	Completed
	Component C			
6	Selection of consultants for preparation of river basin management plans	WECS	June 2015	Delayed
	Component D			
7	Completion of seed storage facilities	Agriculture Coordinator	June 30, 2015	Facilities at Rupendehi and Bardiya completed; 90% complete for Nawalparasi and 70% for Kankai
8	Secure cost and design for JICA model for collection centres	Agriculture Coordinator	Immediate	Design secured, under discussion re its relevancy in IWRMP sites
9	Adopt FAO recommendations for crop water management	Agriculture Coordinator	Immediate	Adoption initiated.
	Environmental Safeguards			
10	Hiring Individual short-Term Environmental Consultant	OPD, December 2014	May 2015	Completed
11	Preparation of Draft SEMP of 3 subprojects (component B)	OPD, February 2015	Done.	Completed
12	Next round of independent evaluation of SEMP implementation	OPD, December 2014	Partially done, KIS covered but other subproject	Partially done, KIS covered but other subprojects of

			of Component B not covered.	Component B not covered.
13	Preparing an inventory of all the schemes of A and B (with location, name of the canal, chainage of major civil works, main environmental issues etc)	OPD, March 2015 (action delayed from previous mission)	Partially done, Component A under AF completed, Component B to be done.	Partially done. Component A under AF completed. Component B to be completed.
14	Preparation of Guidelines for Safe use of Chemicals in FFS Curriculum.	OPD/DoA, March 2015	Delayed, new date July 31 2015	Curriculum adopted for FFS is based on IPM, Hence, it is inbuilt.
15	Orientation workshops on social and environmental safeguards	OPD,	March 2015	Completed, but need for a central level workshop jointly with the WB team has been identified by June 2015.
16	Elaborate the SEMP evaluation study by disaggregated analysis	OPD	March 2015	Completed but OPD needs to do a thorough review of the SEMPS by June 2015
17	Conduct and share the results of SEMP evaluation of Component B sub projects	OPD	April 2015	Delayed, new date is August 2015
18	Commence implementation of SEMP for Narayani Block 8 and Sitagunj.	OPD	January 2015	Delayed, new date is September 2015.
19	Place 5 social consultants	OPD	January 2015	Completed.

Component Wise Detailed Implementation Progress
Component A - Irrigation Infrastructure Development and Improvement

1. The objective of the component A is to improve irrigation water service delivery in selected schemes in the 40 districts of the western regions and to expand and improve groundwater irrigation in the Terai. The initial scope was to improve and develop 168 FMIS and 60 deep tubewell (DTW) schemes covering 26,392 ha and 2,100 ha respectively. The project scope was scaled down to 103 (15,930 ha) schemes due to significant increase in the cost of labor and construction materials compared to the cost during the project appraisal. The saving arising from low bids and unspent contingencies allowed to include an additional 31 subprojects setting a new target of 134 subprojects covering 19,908 ha.
2. The additional financing envisages irrigation development and improvement in 13,360 ha which include: i) rehabilitation and modernization of 72 FMISs (6,900 ha); ii) 8 clusters of deep tubewells (34 deep tube-wells, 1,160 ha); and iii) rehabilitation of 89 tube-wells (5,300 ha) including 25 from Bhairawa-Lumbini Groudwater Irrigation System (6,460 ha). The component includes institutional strengthening of WUA organizational and management aspects for efficient and equitable water delivery and use.
3. *Progress status.* 114 schemes (27 in the Terai, 74 in the hills and 13 in the mountains) providing irrigation to 14,195 have been completed. Work on 20 schemes is ongoing. Five schemes (Kirinchekebandote of Lamjung, Galaha Bangawa of Kapilbastu, Bandiraj of Jumla, Khatikulo and Ghunkhaya of Kalikot) are expected to be completed in this fiscal year. The construction work on the remaining schemes will spill over the next FY. The project team suspects that a few schemes, especially in the districts under Surkhet Division, may not be completed under IWRMP as such schemes would require complete technical reassessment because of the previously unidentified site conditions.
4. The expenditure reported for 114 schemes is about Rs. 1.8 billion which includes Rs. 161.84 million for 13 mountain schemes, Rs. 810.84 million for 74 hill schemes and Rs. 824.25 million for 27 Terai schemes. The expenditure in the Terai consists of Rs.699.78 million for 19 surface schemes and Rs. 124.48 million for 8 groundwater schemes.
5. Altogether 83 schemes have been appraised by the PICC under the additional financing. The Team is pleased to note that 2 schemes are already complete and 39 schemes are under implementation. Among those 39 schemes, the reported progress is: i) 6 schemes above 80 percent; ii) 11 schemes between 50 and 80 percent; and iii) 22 schemes under 50 percent. Detail cost estimates and preparatory works are being carried out for 42 schemes.
6. *Consultants' support.* The process of recruitment of Technical Assistance Consultants through competitive bidding has already started. To bridge the gap, individual consultants were hired on 13 February 2015 and deployed in three western regions and at the OPD. Earlier, the TA service closed with 552 person-months of professional inputs provided by national consultants and 86 person-months by the international consultants.
7. *Capacity building of DoI staff.* Capacity development trainings were provided to GoN/DoI staff in various disciplines. Major training includes GPS Map CXs (Global Positioning System), Project Orientation Workshop/Training, Project Management and Development, Project accounting and reporting for IPR preparation, Arc GIS etc. A total of 589 GoN staff received

training in above disciplines. In addition, 96 GoN/DoI staff took part in the exposure visits and training to various countries. The training/visits included learning the best practices for FMISs, training on Arbitration and Mediation, Irrigation Management Transfer (IMT) observation tours, and Land Acquisition, Resettlement and Rehabilitation. In the additional financing phase IWRMP support to cross learning visits will be confined to farmers and/or members of water user groups in south Asia region only. Staff training will be restricted to skill development training courses that are directly relevant to IWRMP and participation in seminar and conferences only.

8. *WUA Capacity Development.* 552 training events have been organized benefitting 14,032 farmers' representatives. Out of the total participants, 5,778 (41.18 percent) were female, 22.78 percent were from Janajati and 10.61 percent from Dalit (occupational group). Training provided to the WUAs include quality control, operation and maintenance and agricultural development practices. The WUAs also received trainings which were focused on group operation, financial sustainability through the provision of irrigation service fee and other resource generation activities, and the formation of inclusive WUA (addressing gender, caste and other social issues). The irrigation field offices have also provided on-site training and awareness raising activities to 1,224 participants in 51 schemes approved for implementation under the scope of additional financing. The awareness campaigns focused on providing information on project implementation schedule, process and procedures, likely role and contribution requirement from the WUA.
9. The project will prepare institutional development plan (IDP) for each scheme supported under additional financing. For this, the project organized a series of interaction workshop focusing on: i) concept of Institutional Development Framework (IDF), ii) critical issues and challenges in institutional development of WUA, and iii) equip each IDP with adequate support such as enhancement of specific skills and institutional strengthening to make WUA sustainable. Based on the findings of three interaction workshops, the consultant provided overall and general framework for the preparation of institutional development plan. The project further worked on the general framework and initiated the preparation of model plan. The plan generally focuses on strengthening the WUA capacity in following areas: organizational development Skill, O & M Skill, coordination skill and monitoring skills. The selected schemes covered three ecological belts in each region.
10. *Field Visit.* The Bank team and the project staff along with the representatives from the *MoF and National Planning Commission* visited the project sites in Pyuthan, Rolpa, Dang, Rupandehi districts. The irrigation schemes visited were Gartung, Arang Khola and Ghari Kulo (Pyuthan), Madichaur (Rolpa), Ratgaiyan, Korbang (Dang) and seed processing and storage facility (Rupandehi). The team visited irrigation channels, intake structures, agricultural activities including mushroom farming, and interacted with the farmers.
11. The Team was pleased to note that quality of construction of most of the hill schemes is satisfactory. The farmers are generally satisfied with the irrigation facility provided to them. The observations from the field as well as from the discussions/consultations were: i) steel gates constructed at the intake structures have generally been of poor quality and need improvement in design, fabrication and installation; ii) irrigated land in the command area of the irrigation schemes are decreasing at alarming rates due to prime land being used for planned housing development; iii) unplanned development of quarry sites in the rivers is posing threat to the integrity and safety of the irrigation schemes; and iv) the OPD/DoI needs to be more vigilant and selective in developing larger Terai irrigation schemes under IWRMP since experience in Beti (Kapilvastu), Bani Kulo (Kailali) provide adequate lessons. The OPD has successfully procured and dispatched to the concerned field offices robust vehicles as suggested in the 13th Mission. It

is suggested to retain one such vehicle at OPD for periodic field inspection visits by OPD and Task Team staff.

Progress under Component B
Irrigation Management Transfer

1. The objective of this component is to help improve service performance and delivery to select agency-managed irrigation systems in the Terai through essential structural improvement (ESI) and management transfer to the WUAs. The component is designed to address problems in large public irrigation schemes (also known as agency managed irrigation system, AMIS) such as below capacity performance, poor O&M, low cost recovery and inadequate maintenance funds. Component B is being implemented in Kankai (7,000ha), Sunsari-Morang (Sitagunj, 8,000 ha), Narayani (Block 8, 3,000 ha), and Mahakali (Stage I, 5,100 ha) irrigation systems in 23,100 ha.
2. The IWRMP-AF is designed to cover 16,500 ha in Sunsari-Morang (Ramgunj, 7,800 ha), Narayani (Block 2, 3,000 ha) and Mahakali (Stage II, 5,700 ha) irrigation systems. The remaining infrastructure works as well as institutional development and water management works from the earlier project will also be carried over to the additional financing period.

Progress status

3. ESI works planned at the beginning of the project for Kankai, Sitagunj, Narayani Block 8 and Mahakali Stage I are all complete except for package 2 in Mahakali where the progress has remained at about 40 percent due to complete stoppage of work by the contractor. The reason attributed was that the contractor's bid was too low compared to the market rates. Work progress in most of the contract packages under GoN funding has been slow due either to non-availability of required budget or delay by the contractors.
4. Irrigation service fee. The ISF collection process is ongoing in the irrigation systems. The ISF collection mechanism put in place in KIS and MIS and the collection rates are encouraging. It is probable that the target amount required for regular Operation and Maintenance (O&M identified in the Asset Management Plan will be achieved within the project completion time (AF completion time). The ISF collection rate in SMIS is also increasing but the institutional mechanism is reported to be still weak. The ISF collection process has not been effective in NIS Block-8 despite intensification of the WUA strengthening activities. The ISF collection has started in NIS Block-2 also. The WUA of KIS has also been generating resources from other services also to make their institution financially sustainable.

<i>SN</i>	<i>System</i>	<i>F/Y: 2070-071</i>	<i>F/Y: 2071-072</i>
1	KIS	724,406.66	380,000.00
2	SMIS-ISF	687,000.00	33,000.00
3	NIS-Block-8	-	10,000.00
4	NIS-Block-2	-	263,000.00
5	MIS-Stage-I	488,190.00	598,365.00
6	MIS-Stage-II	840,645.00	162,549.00
	Total	2,740,241.66	1,446,914.00

5. Training. Considerable number of training program has been conducted in the sub-systems thus creating better awareness in the farmers. The WUA members were mainly trained on office management and institutional development, leadership development, canal protection, basic account keeping, professional fishery and livestock, cooperatives, canal O&M, off-seasonal

vegetables, project planning etc. 10 training events were completed in KIS, 4 in Sitagunj/SMIS and 5 in MIS-I after October, 2014.

6. Performance evaluation of ToT training conducted by WUA Local Resource Persons has been completed in KIS and SMIS. Orientation training on parcellary maps has been provided at KIS and it is ongoing in MIS. 19 events of WUA training on irrigation and water management, ISF collection and management, awareness raising, plan preparation, leadership development, office management, account keeping, canal operation and maintenance were conducted during this period. A total of 1,676 participants (23 percent female) were involved in those trainings. Institutional development activities required for sub-system WUAs has been included in the additional financing.
7. *Kankai irrigation system.* Works (5 packages) funded through GoN's regular budget were later included in the ESI funding as required funds were not available to carry out the works of which four packages are complete and progress in one package is about 80 percent. 8 additional packages were taken up with the funds available from savings from the previous contracts. Except for package ix, work on all other packages is ongoing and the project expects to complete them before the closing date.
8. A draft report on water allocation plan for secondary canals and direct turnouts from the main canal (Reach 1 to 5) has been prepared. The project plans to organize a workshop for SMU and WUA to disseminate the draft plan and finalize it for its implementation in the coming season. Updating and validation of parcellary maps is in progress by the consultants hired for the purpose. Field work for updating and validation of additional seven secondary canals, namely, S0, S2, S3, S4, S5, S6 and S7 is ongoing. Physical performance of service canals (tertiary canals) is critical for equitable distribution of water to farmers' fields and success of Irrigation Management Transfer. The OPD has hired consultancy service for assessing the performance of all service canals. The institutional development activities of the WUAs will continue in the additional financing period also.
9. *Sunsari-Morang irrigation system (Sitagunj).* In order to assess the physical performance of service canals (tertiary canals) the project has hired a consultancy service to carry out the works in MIS and Sitagunj Secondary Canal (S9). A three day training on "On and Off Farm Water Management" was organized and conducted from February 6-8, 2013, by the SMIS-Sitagunj SMU. The purpose was to improve the technical capacity of gate operators, dhalpas and farmer leaders. Thirty participants including six Engineers, sixteen dhalpas and gate operators, and twelve lead farmers participated in the training. The participants acquired knowledge on the types and use of various water controlling structure, water distribution methods, irrigation schedule preparation, and canal operation.
10. Calibration and gauging for 13 existing offtakes from the Sitagunj (S9) canal have been completed, plus many additional downstream locations. This is a significant accomplishment. Some additional structures have also been calibrated and/or gauged. Stage readings are reportedly being taken 3 times per day at 21 flow measurement points within the SMIS-Sitagunj sub-system. Each structure along S9 canal has also been marked with a unique label indicating the type of structure and its location within the S9 system which will help in the operations and maintenance of the sub-system. Twelve small V-notch and cut-throat weirs have been fabricated by the SMU for measurements on lower level canals in intensive water management pilot areas. Lysimeters (devices for measuring evapotranspiration and soil infiltration) have also been designed, constructed, and installed in the pilot test area (an area within SS9E and F).

11. Canal Operation Plan (COP) has been prepared and test implementation of the plan has been initiated. The draft COP has been updated with current season spring cropping data (irrigated area and cropping pattern) for the development of crop water requirement and preparation of the water delivery schedule for this season's spring paddy crop. Draft Canal Maintenance Plan (CMP) has been prepared. This plan will assist the WUA to better understand the operation and maintenance needs and associated budgetary requirements and related ISF fees. The parcellary maps have been prepared, however verification of the maps and conversion of the maps to soft formats is expected to be completed within next year. Various other SMU and WUA support and water management activities are underway or planned.
12. Narayani (Block 8). Preparation of draft report on water allocation plan for secondary canals and direct sub-secondary canals off-taking from Nepal Eastern Canal (NEC) is prepared. The OPD has planned to organize a workshop at Birgunj for SMU and WUA to disseminate the draft plan and finalize it for its implementation from coming season. The OPD has hired consultancy service for assessment of performance of all the service canals of NIS Block-8. Also, vision and action plan for canal operation, canal maintenance and irrigation service delivery for NIS Block-2 has been prepared and is included in the Irrigation Management Transfer Agreement document. The Irrigation Management Transfer Agreement signing ceremony for NIS Block-2 took place (on March 24, 2015) at Mudali (Parsa district).
13. *Mahakali (Stage I)*. Updating and validation of parcellary maps is in progress. Consultancy service has been hired for this purpose. Field work for updating and validation of Block A and Block B Tertiary Canals has started. The OPD has hired consultancy service for assessment of performance of all service canals of MIS, Stage-I. Also, vision and action plan of canal operation, canal maintenance and irrigation service delivery for MIS, Stage-II has been prepared.
14. *Additional Financing*. Agreement Signing in Block-2, NIS has been completed on March 24, 2014. Preparation of detail cost estimates is going on in MIS II and Ramgunj. Preparation of WUA membership list has been completed in NIS and MIS.
15. *Consultants' Support*. The individual consultants (Irrigation Management Transfer Specialist, Water Management Specialist and Institutional Development Specialist) are on board. Hiring of consulting firm is in progress with the RFPs being evaluated submitted by the short-listed firms.
16. *Field Visit*. The Bank team and the project staff along with the representatives from the Ministry of Finance and National Planning Commission visited the project sites in Sitagunj and Ramgunj secondary canals of Sunsari Morang irrigation system (Sunsari, Morang) and Kankai irrigation system (Jhapa). Earlier, a separate visit was undertaken to Narayani irrigation system, Blocks 8 and 2 (Parsa and Bara), where an irrigation management transfer agreement was signed between the DoI and Block 2 WUA. The observations in the field and at the discussions/consultations with the farmers and the project staff were: i) quality of construction of comparatively larger civil works still needs improvement and proper technical supervision and monitoring; ii) SMUs and the WUAs need to make better efforts to plan the activities under the ESI works as additional ESI works carried out at Sitagunj canal mainly consisted of construction of bridges even where connecting roads were absent; iii) the Bank team commends the reconstruction of Dhyangri aqueduct (Kankai) and Thalaha (Sitagunj) aqueducts under the ESI works as these structures have immensely helped in providing irrigation water to the command areas in the downstream; iv) the DoI/OPD may need to make a renewed effort to make the WUAs active in Block 8 (Narayani) and Sitagunj (Sunsari Morang).

Progress under Component C
Institutional and Policy Support for Improved Water Management

1. The objective of IWRMP 'Component C' is to help provide effective and streamlined water resources management services at the national and selected basin level through institutional strengthening of WECS.
2. The expected key output of this component is the enhanced capacity of the WECS for planning, monitoring and inter-sectoral allocation of water resources. In this regard, it was decided to use the funds to prepare basin plan for certain rivers. The output of the basin plan is expected to provide vision for further structural and non-structural development of the river basins and allocation of water to various competing sectors. Thus the major activity of this component in the additional financing period is the preparation of basin plan for Karnali, Gandaki, Babai and West Rapti basins. The fund allocated for component C under additional financing is USD2.653 million.
3. *Progress Status.* This component is implemented by the WECS. The main activity under this component is to develop River Basin Management Plans for four basins namely Karnali, Gandaki, Babai and West Rapti, financed from the AF. The Terms of Reference (ToR) for the consultants was shared with partners such as the Asian Development Bank (ADB) and within the World Bank. Following the selection process, a total of three firms submitted their proposals and WECS sent its technical evaluation report (TER) for the Bank's review. While the Bank was in process of TER review, one of the consultants lodged a complaint citing that one of the experts proposed by one of its competitor firms had conflict of interest/ assignment. Upon the Bank's request for clarification, WECS conducted its due diligence on the issues and reported the Bank that there is no any conflict of interest/ assignment as claimed by the complainant and recommended that the TER sent to the Bank is valid. Based on this, the Bank completed its review and provided no objection to the TER. After this, once again the same complainant filed 2nd complaint with the same issue. This time, WECS proposed for the cancellation of the entire selection process and requested for the Bank's no objection to reinitiate the selection process again. The Bank reviewed the request and advised WECS that the cancellation of the selection process was not justified and would not be fair for the participating firms. This matter was further clarified by WB team (Program Leader, TTL and Senior Procurement Specialist,) during a discussion with the Secretary and concerned Joint Secretaries of WECS on June 26, 2015. WECS now requires to complete financial and final evaluation of the proposals, and submit negotiated draft contract to the Bank for review.

**Component D– Integrated Crop and Water Management
Implementation Progress**

Activity	Unit	Progress (By Fiscal Year)								Remarks
		08/09	09/10	10/11	11/12	12/13	13/14	This reporting period	Total	
1) Demonstrations										
a) Plastic tunnel	No.	-	220	122	26	160	528	78	528	Vegetables: tomato, bean, cowpea, peeper were grown. By seeing this type of demo about 250 farmers are reported to have adopted the techniques.
b) Fish farming	No.	-	-	-	-	-	179	91	179	Fishes like carps, Mangur were grown, this pond farming helped on household nutrition security.
c) Result demo.	No.	-	1970	424	630	444	529	165	3997	Conducted on vegetables like tomato, cabbage, cauliflower, rice, wheat, maize and potato etc. about 1600 people get knowledge on modern production practices.
d) Mechanization	No.	-	39		16	-	-	-	55	
e) Cowshed improvement	No.	-	-	-	1088	810	-	-	1898	
f) Composting, manuring	No.	-	-	-	1836	820	-	-	2656	
2) Farmers field school (FFS)										
a) Project supported FFS	No.	-	49	64	111	94	21		339	
b) Farmer to farmer FFS	No.	-	-	-	107	82	-	-	189	
3. Capacity Development & Extension										
a) Staff training	Times									
b) Field based farmer training	Times	-	115	232	133	83	44	-	607	
c) Cross visit (in country)	Times									

d) Cross visit (Int'l)	Times			2	2	2	1	1	7	18 participants participated on training "Farm mechanization and marketing" in Sri Lanka (July 2014)
e) Seasonal planning	Times	-	49	128	190	126	-	-	493	
f) Social mobilization	No.	-	-	-	-	-	102	51	102	38(75%) female and 13(25%) male are recruited as social mobilizer in different subprojects of 16 districts
g) Soil testing support	No.	-	49	104	-	20	-	-	173	
4. Investment Support Grant										
a) Investment for community assets	No.	-	24	39	93	59	71	25	286	Structures like Collection centres, culvert and farm machineries like thresher and power tiller were distributed.
b) Small farm machinery	Sets	-	1305	65	344	112	250	113	2076	Power tiller, grader, thresher were distributed; reduce cost of cultivation and generate
5. Income generating activities										
a) IGA for poor and landless	times	-	-	-	81	-	49	6	130	Participated in vegetable like cauliflower, cabbage, bittergourd and cowpea production.
b) Youth employment	No.	-	-	-	-	-	20	20	20	From vegetable farming each youth generate income about NRs 100,000
6. Coordination and collaboration										
a) District tech staff meeting	Times	-	3	3	3	1	1		11	
b) Coordination meeting	Times	1	12	12	27	159	-	4	211	
7. Seed production (rice, wheat, maize)	Ha	-	-	65	421	542	541	174	1569	104 ha of rice, 42 ha of maize and 28 ha of wheat, produced 538 mt. of improve seed

Implementation Progress under the Second Additional Financing to IWRMP

Activity	Unit	Progress (By Fiscal Year)								Remarks
		08/09	09/10	10/11	11/12	12/13	13/14	May to June 2014	Total	
1) Demonstrations										
a) Cow shed improvements	No.	176	644	638	1166	680	-	-	3304	
b) Démonstration on micro nutrient and composting	No.	272	690	650	1836	666	-	-	4114	
2) Farmers field school (FFS)										
a) FFS on Integrated Plant Nutrient Management	No.	12	22	21	23	23	-	-	101	
3) Capacity Development & Extension							-	-		
a) Officer level Training (Participant)	No.	19	20	24	22	20	-	-	105	
b) JT/JTS Level Training (Participant)	No.	27	60	57	22	-	-	-	166	
c) Farmers Level Training (Participant)	No.	43	50	43	72	38	-	-	246	
d) Service centre level training on sustainable soil management	No.	23	115	112	115	115	-	-	480	
e) 50 percent subsidy on improved seed	Mt.	24.75	176	189.83	236.36	210	-	-	834	
f) Revolving fund for community based seed production center	No.	-	-	-	-	-	9	9	9	Each centre provided with NRs 200,000
g) Agriculture development strategy (ADS) national level seminar	No.	-	-	-	-	-	1	1	1	
h) Agriculture development strategy (ADS) regional level seminar	No.	-	-	-	-	-	2	1	2	
i) Travelling seminar for districts technician and other stakeholders	No.	-	-	-	-	-	1	1	1	Conducted in far western region of Nepal included participants' of

										MoAD, DoA, Projects coordinator office, DADO and WUA.
4) Small irrigation										
a) Improvements and construction of small irrigation scheme (3000)	No.	445	1017	1131	719	179	-	-	3491	
5) Seed centres										
a) Community based seed production, processing and storage centre (under construction)	No.	-	-	-	-	-	4	4	4	Almost 80 % work in Bardiya, 70 % work in Rupandehi and Nawalparasi and 25 % work in Jhapa have been completed. Kanchanpur has been cancelled because WUA was unable to contribute their part.

Proposed activities for the next implementation period (July to December 2015)

Activity	Unit	First trimester target	Second trimester target	Third trimester target	Total target
2) 1) Demonstrations					
a) Plastic tunnel	Number	-	3	87	90
b) Fish farming	Number	-	75	88	163
c) Result demo.	Number				
d) Mechanization	Number				
e) Cowshed improvement	Number	150	286	206	642
f) Composting, manuring	Number				
2) Farmers field school (FFS)					
a) Project supported FFS	Number	5	95		100
b) Farmer to farmer FFS	Number				
3. Capacity Development & Extension					
a) Staff training	Times		1	1	2
b) Field based farmer training	Times				
c) Cross visit (in country)	Times				
d) Cross visit (Int'l)	Times	1	1		2
e) Seasonal planning	Times	44	10		54
f) Social mobilization	Number	2	58		60
g) Soil testing support	Number				
4. Investment Support Grant					
a) Investment for community assets	Number		20		20
b) Small farm machinery	Sets		180	112	292
5. Income generating activities					
a. IGA for poor and landless	times		48	1	49
b. Youth employment	number		183	142	325
6.Coordination and collaboration					
c) District tech staff meeting	Times		44	44	88
d) Coordination meeting	Times	1	6	6	13
7.Seed production (rice, wheat, maize)					
Seed production (rice, wheat, maize)	Ha	127	153	139	419
1. completion of remaining work of community based production and processing centers	No.	4			4
2. Machinery support for community based production and processing centers	No	4			4

Environmental and Social Safeguards

1. The Bank team reviewed the progress made in the social and environmental safeguard issues since the last mission. The following is a summary of the issues discussed and actions agreed.

Preparation and Implementation of Social and Environmental Management Plans (SEMPs)

2. Under Component A, 41 subprojects have been selected for AF support. Social and Environmental Management Plans (SEMPs) of all of 41 subprojects have been approved, and the mitigation measures identified by the SEMPs are being implemented in the respective subprojects. For the three subprojects selected for AF support under Component B—Ramgunj Branch of SMIS, Block-8 of Narayani, and Phase II of Mahakali, draft SEMPs have been prepared and their recommendations are being used in the finalization of the detailed engineering designs and costing of the respective subprojects. Budget has been allocated and implementation of mitigation measures identified in the respective SEMPs of Sitagunj and Narayani Block 8 is ongoing.
3. However, a review of screening checklist and the preparation of SEMP indicates that they are not done systematically, and most of the SEMPs, including the recently completed ones do not comprise specific actions under gender development plan and indigenous people development plan. Further, as recommended during the last mission and also indicated by the independent monitoring report, records of land donation/purchase under the various sub-projects has not been kept adequately. It has been agreed that the OPD will send out a circular to all WUAs and SPs supported under the project to provide details on the land donation/acquisition status and compile the information by July 2015.

Monitoring and Compliance of SEMPs

4. As agreed during the previous mission, SEMP evaluation with disaggregated analysis has been completed for the first round of independent monitoring/evaluation of SEMP implementation. The OPD recently completed a thorough review of non-compliance issues, as reported in the monitoring report, and developed an Action Plan on course correction (see Table 5).

Table 5: Action Plan to address the issues identified by SEMP evaluation

S.N	Issues Identified & Mitigation measures	Action Required	Time Line	Responsibility
1	Issue: Safety measure in residential area	The IDD will visit SP area and verify the need of covered slab/foot bridge	By July 2015 (The assessment report will be shared with WB By August 2015)	OPD
	MM: PCC concrete lining with covered slab (Chauri Chaurashi Birta ISP Palpa)	In case of necessity, foot bridge will be constructed using post construction support budget.	By December 2015	IDD Palpa - (The progress will be monitored by OPD)

S.N	Issues Identified & Mitigation measures	Action Required	Time Line	Responsibility
2	Issue: Arsenic contamination MM: Arsenic field kit and training should provide to WUA for periodic monitoring Daiji DTW)	The GBO Dhangadhi will make an assessment of arsenic contain in SP area	By June 2015 (The assessment report will be shared with WB By August 2015)	GBO Dhangadhi (The progress will be monitored by OPD)
3	Issue: Silt intrusion in canal MM: Covered canal with protection of left side of canal and construction of de-silting basin (Pandheri Palesi and Syalpani ISPs of Salyan)	OPD will verify whether the issue still valid or not. If issue is valid, IDSD will construct required structure	By July 2015 (The assessment report will be shared with WB By August 2015) By November 2015	OPD IDSD Salyan - (The progress will be monitored by OPD)
4	Issue: Obstruction of waterway due to construction of permanent concrete headwork MM: Provision of easy passage way such as fish ladder will be made (Itaura ISP Surkhet)	OPD will make an assessment of the validity of the issue in present context. If issue is valid, the OPD will purpose most appropriate solution to address the issue.	July 2015 (The assessment report will be shared with WB By August 2015) By November, 2015	OPD IDSD Surkhet - (The progress will be monitored by OPD)
5	Issue: Addressing social issues MM: IPDP formulation	Selection of candidate subproject for model IPDP formulation Formulation of IPDP	By July 2015 By September 2015	OPD

5. OPD informed that second round of independent monitoring/ evaluation of SEMP implementation, which also covered Kankai Irrigation from the Component “B”, is completed. Another round of SEMP implementation evaluation in Component B will be done by August 2015, while for Component A, consultant will be hired by December 2015.

Staffing Issues

6. The monitoring of SEMP's implementation in both Component A and B is currently done by the respective Regional Directorate as part of overall monitoring. In addition, the Social, Environmental and Climate Change Division (SECCD) of the DoI also monitored social and environmental mitigations in three subprojects (Bargadi of Kaski district, Khurkot of Parbat and Babiyaachaur of Myagdi district). As agreed during the previous mission, OPD completed the recruitment of 5 social development consultants (1 for the central level, and 4 at the regional level) to support the screening and monitoring work. Similarly, OPD has also hired an environmental consultant an interim measures to support the project until Component ‘A’ TA Consultant team, which includes environmental specialist, is on board. It is expected that the consultant will provide expert oversight, regular support as well as monitoring environmental performance.

Gender and Social Inclusion

7. In terms of broader social development issues, the project has been making important progress in terms of inclusion of vulnerable groups like women, Dalits and indigenous people as beneficiaries at sub-project levels. As mentioned in the Progress Report submitted by the OPD in May 2015, the total population of approved 56 SPs under AF is 142,065. The percentage of male and female is 49 and 51 percent respectively, while Janajati and Dalit constitute 23 and 14 percent of the total population in the catchment area of the irrigation schemes (See Table 6).
8. Similarly, in orientation trainings as well as WUA training activities, the participation of women and other disadvantaged groups have been significant. By Mid-March 2015, a total of 552 training events were organized benefiting 14,03 farmer representatives. Out of the total participants, 5578 (41.18 percent) were female, 22.78 percent were from Janajati and 10.61 percent were Dalits. Likewise, the IDD/IDSDs organized on-the-site training and awareness raising activities in 51 subprojects approved for implementation under AF. The awareness campaigns conducted during this particular stage were focused on providing information on project implementation schedule, process and procedures, likely role and contribution requirement from WUA (See Table 7 and Table 8 for details).
9. Likewise, as discussed during the previous mission, the OPD has also shared sample Institutional Development Plans for 9 sub-projects which the WB team will review for appropriate exit strategy. However, the absence of specific Gender Development Plan and Indigenous Peoples Development Plan; lack of effective grievance redress mechanism; and process for information disclosure, remains a concern. It has been agreed that the OPD will organize a workshop by June 2015 jointly with the World Bank team to review the social development issues relating to the project and agree on steps forward.

Trainings and Orientation

10. The OPD organized two days training cum workshop on "Irrigation Infrastructure Development and Improvement under IWRMP" in the three region during February and March 2015. A separate dedicated session on "Safeguard Policy and SEMP" was delivered in the training/ workshop. A separate review and orientation workshop was conducted in Sauraha, Chitwan for Component B in which a session was dedicated for environmental and social safeguard.

Table 6: Household, population and ethnic settings of SP approved under AF

Region	Ecological Belt	No. of SPs	No. of HH	Population										
				Total	Male		Female		Janajati		Dalit		Madhesi	
					No.	%	No.	%	No.	%	No.	%	No.	%
WDR	Mountain	3	235	1,328	613	46%	715	54%	1,276	96%	46	3%	-	0%
	Hill	15	3,424	16,597	8,636	52%	7,961	48%	3,452	21%	886	5%	-	0%
	Surface	5	11,097	54,505	26,387	48%	28,118	52%	10,817	20%	2,438	4%	-	0%
	Groundwater	2	4,070	20,940	10,037	48%	10,903	52%	9,488	45%	8,428	40%	1,960	9%
	Tarai (Surface+GW)	7	15,167	75,445	36,424	48%	39,021	52%	20,305	27%	10,866	14%	7,960	11%
	WDR Total	25	18,826	93,370	45,673	49%	47,697	51%	25,033	27%	11,798	13%	7,960	9%
MWDR	Mountain	3	1,094	6,672	3,264	49%	3,408	51%	3	0%	2,364	35%	-	0%
	Hill	9	2,096	9,793	4,767	49%	5,026	51%	2,628	27%	1,094	11%	-	0%
	Surface	3	2,203	7,958	3,929	49%	4,029	51%	2,377	30%	717	9%	174	2%
	Groundwater (GW)	2	1,577	8,505	4,257	50%	4,248	50%	1,292	15%	2,200	26%	-	0%
	Tarai (Surface+GW)	5	3,780	16,463	8,186	50%	8,277	50%	3,669	22%	2,917	18%	174	1%
	MWDR Total	17	6,970	32,928	16,217	49%	16,711	51%	6,300	19%	6,375	19%	174	1%
FWDR	Mountain	5	560	4,042	2,010	50%	2,032	50%	21	1%	697	17%	-	0%
	Hill	6	528	3,955	1,908	48%	2,047	52%	-	0%	811	21%	-	0%
	Surface	2	1,350	4,679	2,223	48%	2,456	52%	1,040	22%	261	6%	-	0%
	Groundwater (GW)	1	404	3,092	1,589	51%	1,503	49%	838	27%	309	10%	-	0%
	Tarai: (Surface+GW)	3	1,754	7,771	3,812	49%	3,959	51%	1,878	24%	570	7%	-	0%
	FWDR Total	14	2,842	15,768	7,730	49%	8,038	51%	1,899	12%	2,078	13%	-	0%
THREE REGIONS COMBINED	Mountain Total	11	1,889	12,042	5,887	49%	6,155	51%	1,300	11%	3,107	26%	-	0%
	Hill Total	30	6,048	30,345	15,311	50%	15,034	50%	6,080	20%	2,791	9%	-	0%
	Surface Total	10	14,650	67,142	32,539	48%	34,603	52%	14,234	21%	3,416	5%	174	1%
	GW Total	5	6,051	32,537	15,883	49%	16,654	51%	11,618	36%	10,937	34%	1,960	2%
	Tarai Total (Surface+GW)	15	20,701	99,679	48,422	49%	51,257	51%	25,852	26%	14,353	14%	8,134	6%
TOTAL OF THREE REGIONS		56	28,638	142,066	69,620	49%	72,446	51%	33,232	23%	20,251	14%	8,134	6%

Source: Progress Report, May 2015

Annex 3 (I)

Summary of WUA Training

Region	No. of Training Events	Participants						Participants from Disadvantaged Groups		
		Male		Female		Total		Janajati	Dalit	
		No.	%	No.	%		No.	%	No.	%
WDR	284	4,624	60.8%	2,980	39.2%	7,604	1,663	21.9%	412	5.4%
MWDR	221	2,837	55.9%	2,242	44.1%	5,079	1,160	22.8%	932	18.4%
FWDR	47	793	58.8%	556	41.2%	1,349	373	27.7%	145	10.7%
TOTAL	552	8,254	58.8%	5,778	41.2%	14,032	3,196	22.8%	1,489	10.6%

Source: Progress Report, May 2015

Annex 3 (J)

Summary of Orientation Training

Region	Ecological Belt	No events	Number of Participants								
			Total	Male		Female		Janajati		Dalit	
WDR	Mountain	3	75	38	50.7%	37	49.3%	9	12.0%	75	100.0%
	Hill	9	217	144	67.3%	73	34.1%	8	3.7%	241	112.6%
	Terai	6	154	122	79.2%	32	20.8%	3	1.9%	154	100.0%
	TOTAL	18	446	304	68.2%	142	31.8%	20	4.5%	470	105.4%
MWDR	Mountain	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Hill	17	348	222	63.8%	126	36.2%	78	22.4%	25	7.2%
	Terai	4	144	110	76.4%	34	23.6%	74	51.4%	13	9.0%
	TOTAL	21	492	332	67.5%	160	32.5%	152	30.9%	38	7.7%
FWDR	Mountain	4	107	76	71.0%	31	29.0%	7	6.5%	3	2.8%
	Hill	2	50	16	32.0%	34	68.0%	5	10.0%	3	6.0%
	Terai	6	129	77	59.7%	52	40.3%	33	25.6%	9	7.0%
	TOTAL	12	286	169	59.1%	117	40.9%	45	15.7%	15	5.2%
TOTAL		51	1224	805	65.8%	419	34.2%	217	17.7%	523	42.7%

Source: Progress Report, May 2015

Summary of Agreed Actions

	Action	By Whom	Status/ revised deadline
Component A - Irrigation Infrastructure Development and Improvement			
1	Assessment of damage to schemes supported by IWRMP.	OPD	June 30, 2015
2	Completion of 3 schemes in Surkhet, inadvertently reported as complete	OPD	December 31, 2015
3	Handing over training of WUA to Irrigation Management Division	OPD and IMD	October 31, 2015
Component B - Irrigation Management Transfer			
4	Recruitment of environmental specialist	OPD	June 30, 2015
5	Organize an orientation workshop for OPD staff, social development consultants, divisional representatives on safeguards issues relating to the project	OPD	June 30, 2015
Component C: Institutional and Policy Support for Improved Water Management			
6	Recruit consultants to prepare the basin plan for Karnali, Gandaki, Babai and West Rapti.	WECS	By December 2015
Component D: Integrated Crop and Water Management			
7	Complete construction of seed storage and processing centres in Rupendehi and Kankai.	Component D Coordinator	June 30, 2015
Environmental and social safeguard			
9	Final SEMP of 3 subprojects (Component B): Ramgunj of SMIS, Block-8 of Narayani, and Phase II Mahakali	OPD	September 30, 2015
10	Independent Evaluation of SEMP implementation in Component B	OPD	August 31, 2015
11	Consultant hiring for Independent Evaluation of SEMP implementation in Component A subprojects (third round)	OPD	December 31, 2015
12	Guidelines for safe use of chemicals	DoA	July 31, 2015
13	Sample survey of component D activities on safeguard compliance (ToR by July 2015)	DoA	December 31, 2015
14	Compile the land donation/acquisition status of all SPs supported under the project	OPD	June 30, 2015
15	Organize an orientation workshop for OPD staffs, social development consultants, divisional representatives on safeguards issues relating to the project	OPD	June 30, 2015
16	Complete all actions outlined in the SEMP Action Plan for course correction	OPD	December 31, 2015

Results Framework
Progress as at April 15, 2015

Design summary Development Objective	Indicators	Baseline ³	Progress		End Target (June 2018)
			November 14, 2014	April 15, 2015	
To improve irrigated agriculture productivity and management of selected irrigation schemes and enhance institutional capacity for integrated water resources management.	Increase in productivity of selected (main) crops.	Rice 2.9MT/ha; Wheat 2.0MT/ha; Maize 2.1MT/ha; Potato 10.0MT/ha	1. Paddy: 3.5 2. Wheat: 2.6 3. Maize: 2.6 4. Potato: 14	Rice: Wheat: Maize: Potato:	Rice: 3.8 MT/ha Wheat: 3.2 MT/ha Maize: 3.6 MT/ha Potato: 16.0 MT/ha
	Percent increase in cropping intensity	Average 168%	248		220 %
	Percent of WUAs in transferred irrigation schemes whose O&M expenditures is as per agreed Asset Management Plans	N/A	60	60	85%
	Percent of water users in the rehabilitated schemes satisfied with WUAs.	N/A	Head Middle Tail 4E: 90 80 30 G: 10 18 67 P: 0 2 3 For Component A, Component B not available	65	70%
	Core indicators				
	Area provided with irrigation and drainage services (ha)	33,106	13, 832(Component A) 23,100 (Component B)	14,641 (Component A) 23,100 (Component B)	72,867

³Baseline as per the original project (May 1, 2008)

⁴E=Excellent, G=Good, and P=poor

Design summary Development Objective	Indicators	Baseline ³	Progress		End Target (June 2018)
			November 14, 2014	April 15, 2015	
	Operational water user associations created and/or strengthened (number)	0	112 (Component A) 4 (Component B)	120 (Component A), 4 (Component B)	221
	Water users (Number of beneficiaries) provided with new/improved irrigation and drainage services	0	173831 (Component A) 202302 (Component B)	182,579 (component A) 202302 (Component B)	415,200
	Water users (number of female beneficiaries) provided with irrigation and drainage services	0	88101 (Component A) 103550 (Component B)	92,627 (Component A) 103550 (Component B)	215,904
Component A: Irrigation infrastructure development and Improvement	Percent of tail-enders reporting improved water availability.	N/A	86.9	80	60% of tail
	Percent of WUAs formally constituted ⁵ and holding regular meetings	0	100% formally constituted 57% regular meeting 43% as and when needed	100% formally constituted 59% regular meeting 41% as and when needed	100
	Percent of WUAs collecting water charges (in cash, kind and labor) required for adequate O&M	0	100 are collecting but the collection is low for O&M	No change	100
	Percent of WUAs maintaining appropriate accounts and cash registers	0	100 percent but the efficiency and quality of record keeping needs to be improved by capacity support training	No change	100
	Area irrigated by groundwater from Deep Tube Wells (DTW)	464	1190 DTW 715 STW	No change	8,725

⁵ In line with existing Water Resources Act and Irrigation Regulations

Design summary Development Objective	Indicators	Baseline ³	Progress		End Target (June 2018)
			November 14, 2014	April 15, 2015	
Component B: Irrigation management Transfer	Percent of tail-enders reporting improved water availability.	0	73%	No change	60
	Number of WUAs holding regular meetings.	0	Indicator modified with AF N/A	4	7
	Number of WUAs collecting water charges required for adequate O&M.	0	Indicator modified with AF N/A	6 out of 7 WUA collecting water charge (ISF) but only one (KIS) collecting adequate fund for O&M	5
	Number of WUAs maintaining appropriate accounts and cash registers	0	Indicator modified with AF NA	4	7
	Percent of delivery points receiving proportionate share of water	0	Not recorded	Not recorded	100
	Adequate O&M expenditures by DoI and WUA according to agreed Asset Management Plan in 5 out of 7 schemes	0	Indicator modified with AF NA	1 out of 7 (20%)	100
Component C: Institutional and Policy support for Improved Water Management	Integrated river basin plans developed for four rivers	0	Indicator modified with AF NA		4 integrated river basin plans prepared and finalized.
	Telemetric Systems established in targeted basins		22 systems established and operational		TBD
Component D: Integrated Crop and Water Management	Percent of farmers in the selected schemes adopting demonstrated techniques	0	60%		60
	Increase in seed replacement rate	Rice: 10.2% Wheat: 10.3% Maize: 11.3%	Not recorded		Rice: 13.01% Wheat: 10.90% Maize: 16.01%

TBD = To be determined.