

Water Financing Partnership Facility

PILOT AND DEMONSTRATION ACTIVITY

Activity Title: Demonstrating Enhanced Productivity of Irrigated Agriculture System Through Multifunctional Water Users Associations	
Proponent: INPIM – Nepal, FMIST, Nepal Engineering College	
Request Date: 9 March 2008	
Country: Nepal	Region: South Asia
Activity Proposed Start Date: July 2009	Activity Proposed Duration: 12 months
Cost Estimate: US\$ 17,250.00	

1. Background and Rationale

Irrigation systems in Nepal, in general, suffer from underperformance, characterized by low level of innovations in cropping system and crop production and management, leading to low level of agricultural productivity, crop diversification and water use efficiency. The concerns for underperformance hinge around several issues:

- (i) Failure to define and deliver acceptable level of irrigation services to the users;
- (ii) Failure to link agriculture and water management initiatives; and
- (iii) Failure to craft institutions capable of managing the irrigation systems in a sustainable manner.

Project evaluation reports and reviews have been consistently highlighting these issues over last fifteen years, especially those relating to poor linkages between irrigation and agriculture. It is very well understood that development of irrigation infrastructure alone will not help achieving the anticipated increase in agricultural productivity. Besides irrigation, agriculture inputs, marketing and support services are also equally important elements alongside of irrigation infrastructure and services. Farmers need support to access credit, good quality inputs of fertilizer and seed, exposure and training in new crops and better farming systems.

The Government of Nepal has been trying to address the issue of underperformance through management and structural improvements and policy reforms beginning 1985. Participatory management has been adopted as distinct policy option towards this initiative. This policy tool can be translated into action through the creation of multifunctional, service oriented, accountable and management capable Water Users' Association (WUA) matching with the hydraulic characteristics of the irrigation systems. Yet, there has been little or no progress in establishing such WUAs.

The primary role of WUAs is to manage irrigation systems to deliver reliable and efficient irrigations services to users. Besides this, WUAs can also cover a much wider spectrum of activities and provide development services in the irrigated agricultural system. Two characteristics inherent to WUAs are:

- (i) WUAs have natural potential to evolve as farmers' cooperative in irrigated agricultural system because they have established common reason to cooperate.
- (ii) Existing legal provisions recognize WUAs as community-based organizations.

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It is important to note that a large number of WUAs are active in Nepal. These WUAs are connected under the umbrella of the National Federation of Irrigation Water Users Association Nepal (NFIWUAN) which works for the benefit of Nepal's irrigators. So far, NFIWUAN has established chapters in 66 districts, with an affiliation of approximately 2139 WUAs scattered throughout the country. Besides the established role of irrigation management, if these WUAs can also provide a wider spectrum of services for irrigated agriculture, the WUAs federation at the district and central levels can be instrumental in enhancing productivity of Nepal's irrigated agriculture and subsequently improve livelihood outcome of the local community.

2. Theoretical Framework

The search for ways to better consider multiple needs, especially when the sectoral divides in the water sector are very much prevalent, is not new. For long, professionals in the irrigation sector, have highlighted the unexpected outcomes and shortcomings of single-use planning and design approaches and have proposed alternative and more integrated approaches that take people's multiple needs as a starting point (Meinzen-Dick 1997; Moriarty 2002). The concept of multiple use service is feasible from a water-resources and financial perspectives, but is blocked by formal limits on the sectoral water uses, such as those in irrigation (Butterworth et al. 2005). There are attempts focusing on the institutional aspects of multiple use services. For example, the South African NGO Association for Water and Rural Development is piloting livelihood-based bottom-up planning for multiple uses, which is fully integrated into the Integrated Development Plans of Local Government (Maluleke et al., 2005). Improved well-being among the poor is not only the yardstick of achieving the development objectives but also an important determinant of the willingness and ability to pay by all users. According to the principle of economic rationality, at the basis of all economic science, humans are willing to pay more for a good or a service than for another, if the utility derived from the former is higher than that derived from the latter. Moreover, irrigation schemes that shift to domestic-plus and multiple-use designs also enhance the ability to pay using income from the additional productive activities.

This merit of multiple use service is closely linked to perhaps the thorniest issue in the public irrigation sector, where tariffs and fees in irrigation schemes seldom cover even basic operational costs, let alone capital costs (WHO/ UNICEF 2000). The higher willingness and ability to pay for schemes that better meet one's need can be harnessed to attain a better level of or even full cost-recovery, and thus, higher financial and technical scheme sustainability. This study is based on two main propositions. Firstly, it attempt to look into the possibility of WUAs, which are viable community based organizations in irrigated areas, engaging in multifunctional services in irrigated agriculture. Secondly, in contrast to the current institutional strategies focusing on a narrow objective of reducing government costs in managing irrigation infrastructure, the study aimed at broader resource management goals through WUA transforming into irrigation cooperatives.

2. Objectives:

The objective of this study is to evaluate the potential for and merit of building multifunctional water users associations (WUAs) in Nepalese irrigation systems. The study will enumerate the factors promoting, supporting and/or constraining the processes towards evolution of multifunctional WUAs. The specific objectives of the study are as follows:

- i. To evaluate the factors, environment, and prerequisites for multifunctional WUAs;
- ii. To evaluate the support services needed to foster the evolution of multifunctional WUAs; and
- iii. To document the process of forming multifunctional WUAs.

The study is important for achieving the outcome of the Community Managed Irrigated Agriculture Sector Project (CMIASP, ADB Loan 2102) in the Central and Eastern Development Regions of Nepal. CMIASP aims to enhance agricultural productivity and sustainability of farmer-managed irrigation systems by providing improved measures for irrigation infrastructure, agricultural development, and livelihood enhancement. WUAs are empowered to manage the irrigation, agriculture, and livelihood enhancement activities for each subproject. CMIASP seeks to strengthen WUAs to take an active and effective management role.

3. Scope and location of Work / Description of Activities

While WUAs traditionally manage irrigation activities and decisions, they do not all assume responsibilities for and oversight of agricultural production and marketing, and measures to increase non-farm income. Under CMIASP, some of the proposed agricultural/social development and livelihood enhancement activities include: (i) agricultural support services through farmers' field school (FFS) approach; (ii) seed multiplication for local level seed security; (iii) market promotion; (iv) promotion of women participation; (v) linkage with micro-finance institutions for access to micro-credit; (vi) vegetable gardening; and (vii) income generation. All these expected engagements of WUA under CMIASP are expected to enhance the role, and therefore possible contributions, in irrigation and irrigated agriculture.

The study is expected to involve: i) review of literatures, and relevant secondary sources of information, pertaining to international and domestic experiences in building multifunctional WUAs, ii) analysis of factors, environments and prerequisites leading to multifunctional WUAs through detailed and field based studies, and iii) analysis of policy frameworks and institutional arrangements fostering (or impeding) development of multifunctional WUAs and the needs for the support services thereto.

The field study shall essentially be limited to selected FMISs, at least three from among the subprojects under CMIASP, representing different agro-ecological regions and community mixes. The selection shall be made in consultation with the CMIASP personnel. In addition, small number of FMISs, demonstrating successful models of multifunctional WUAs, shall also be included in the study.

The activities under the study shall essentially include:

- i. Review of relevant literatures, and secondary sources of information, on international and domestic experiences with the development of multifunctional WUAs
- ii. Review of policy frameworks and institutional arrangements likely to support/foster or impede the process of development of multifunctional WUAs
- iii. Process documentation/diagnosis of development of multifunctional WUAs in selected FMISs under CMIASP
- iv. Study of selected FMISs demonstrating successful models/examples of evolution of multifunctional WUAs.

Farmer Observers (FOs) will be stationed in the selected subprojects to document and analyze the formation and activities of WUAs. The study team will provide interim lessons learned in the course of process documentation so that observed lessons may be readily incorporated into other CMIASP subprojects. The study team will publish a good practice guide for wide dissemination after completing its activities.

The proposed activity directly supports the achievement of several Water Financing Program target outcomes: (a) 40 million people with more productive and efficient irrigation and drainage services, (b) integrated water resources management (IWRM) introduced in 25 river basins, and (c) improved water governance through national water reforms and capacity development.

4. Implementation Schedule

The implementation schedule of the proposed study will be guided by the CMIASP subproject implementation schedule which envisages participatory planning and development of small community based irrigation schemes under a process approach. This approach has been proposed to include series of activities scheduled in four stages: i) sub-project identification and beneficiary mobilization, ii) planning, design and execution of irrigation infrastructure and institutional development, iii) agricultural development and livelihood enhancement, and iv) capacity building for sustainable operation and management and agricultural support services. For the proposed PFA activities those sub-projects under CMIASP shall be selected where the activities under stage-I are already completed. The activities envisaged under the proposed PDA shall be undertaken over a period of 12 months. The detailed implementation schedule is attached as Appendix 1.

5. Institutional Arrangements

International Network of Participatory Irrigation Management- Nepal Chapter (INPIM-Nepal), Farmer Managed Irrigation Systems Trust (FMIST) and Nepal Engineering College (*nec*) shall collaborate in undertaking the activities towards accomplishing the objectives spelled in this PDA. The implementation

of the activities shall be undertaken in tandem and closed consultation with DOI and DOA, especially with that of CMIASP. INPIM–Nepal will have the overall responsibility of the coordination and management of the envisaged activities and the other two institutions (FMIST and *nec*) shall have active engagement in execution of field works, analysis and synthesis of results, publication and dissemination of research results.

A steering committee is proposed to be constituted for guiding and monitoring the activities envisaged in this PDA. The structure of the steering committee is proposed to be as under:

DDG of DOI (Planning)- Chairperson
Project Manager of CMIASP (DOI Component)- Member
Project Manager of CMIASP (DOA Component)- Member
Chairperson of INPIM-Nepal- Member
Chairperson of FMIST- Member
Principal of *nec*- Member
Head of IWMI-Nepal Office- Member
Secretary of INPIM-Nepal- Member-Secretary

The study team shall be comprised of faculty/researchers from the *nec*, INPIM-Nepal and FMIST. The study team will work in consultation with the concerned WUAs, the community organizers and NGOs working with those WUAs, and DoI and DoA personnel. The study team will recruit and be assisted in the field by Farmer Observers (FOs). The role of the FO is to participate in the CMIASP implementation activities, in the selected subprojects, as an observer/researcher and document the process on a daily basis. The FOs shall work with relevant WUA subcommittees, such as the Agriculture and Social Development Subcommittee and the Subproject Monitoring Subcommittee.

The detail working arrangements shall be worked out after building consensus among the stakeholders (DOI, DOA, WUAs, NIFWUAN and ADB) and the study proponents (INPIM-Nepal, *nec* and FMIST).

The inclusion of Head of IWMI-Nepal Office in the steering committee is envisaged to link the proposed study to similar initiatives in other parts of the world. IWMI is a regional knowledge hub in irrigation service reform and IWMI and FAO are together working on the discourse of multifunctional WUAs. This linkage will help in bringing-in the experiences in the region, and in other parts of the world, in developing the study and in the analyses of information collected in the course of the study.

6. Proponent Qualifications

Nepal Engineering College (*nec*), established in 1994 is the first private sector institution in Nepal offering higher education in engineering and allied disciplines. *nec* implements the education, research and technology transfer programs through a pool of more than 100 faculty members trained from various institutions around the world. *nec* started Masters course in Interdisciplinary Water Resources Management beginning November, 2007 in support of Wageningen University, the Netherlands and South Asian Consortium for Interdisciplinary Water Resources Education and Research (SaciWATERs), Hyderabad, Ind. A significant element in the program includes problem based and action oriented research.

Farmer Managed Irrigation Systems Promotion Trust (FMIST), establish in 1990 is a non-profit organization engaged in promotion of community developed irrigation schemes in Nepal. FMIST is engaged in archival of information on numerous farmer managed irrigation systems (FMISs) in Nepal, policy research and advisory relating to FMISs in the country

International Network on Participatory Irrigation Management (INPIM) is a global network of professionals for facilitating and promoting participatory irrigation management and public private partnership in water resources management. INPIM-Nepal was established in 1997. The members in INPIM-Nepal include professionals from diverse fields of expertise and experiences. The significant area of engagement of INPIM-Nepal has been policy advisory relating to participatory irrigation management in the country.

The lead persons from the three proponent institutions constituting the study team in the proposed study include:

- i. Dr. Khem Raj Sharma, INPIM-Nepa (Coordinator)- Ph.D. in Land and Water Resources

- Management
- ii. Mr. Dand Pani Jaishy, FMIST- M.Sc. in Water in Resources Engineering
- iii. Mr. Ashutosh Shukla, nec- M.S. in Land and Water Resources Engineering

The curriculum vitae of the lead persons is included in attachment-1.

7. Expected Results

Outputs:

- i. Literature review on experiences with multifunctional WUAs. The experiences in the region and in other parts of world with regards to multifunctional WUAs would help in substantiating the empirical evidences generated in the course of the field studies and the analyses thereof
- ii. Process documentation report focused to factors, environment and prerequisites for the evolution of multifunctional WUAs
- iii. Interim Guideline Reports with recommendation for adjustments to CMIASP subprojects;
- iv. Good practice publication

Outcome:

Enhanced engagement of WUAs in managing the irrigation, agricultural and livelihood enhancement activities in CMIASP subprojects, eventually leading to evolution of multifunctional WUAs

Impact:

Enhanced agricultural productivity and sustainability of farmer-managed irrigation systems

8. Measurable Performance Indicators

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact: Enhanced agricultural productivity and sustainability of FMISs through multifunctional engagement of WUAs	<ul style="list-style-type: none"> i. Increased cropping intensity, crop diversification and productivity ii. Efficient delivery of agricultural production inputs, technology and related support services iii. Effective linkage with market (infrastructure and information) enhancing return to the farmers iv. Enhanced engagement and performance of WUAs in the operation and management of the irrigation scheme and irrigated agriculture 	<ul style="list-style-type: none"> • Sub-Project BME Report • Sub-Project Progress and Completion Report • Sub-Project Evaluation Report 	Assumptions <ul style="list-style-type: none"> • Willingness and cooperation of the WUAs in accepting enhanced roles in the management of irrigated agriculture • Necessary system operational for continued monitoring of and evaluation of performance • Appreciation of value and continued support from within and outside DOI Risks <ul style="list-style-type: none"> • Conducive political conditions prevailing throughout the project cycle • Timely execution of the project cycle envisioned under CMIASP

<p>Outcome:</p> <p>i. Evaluation of possibilities of enhanced engagement of WUAs in operation and management of irrigation and irrigated agricultural system, input supply and marketing of agricultural produces</p> <p>ii. Development of procedural guidelines and identification of needs of support services fostering evolution of multifunctional WUAs in CMISP's sub-projects and other FMISs</p>	<p>i. Increased role of WUAs in:</p> <p>a. Operation and management of irrigation system and related decision making</p> <p>b. Management of agricultural production inputs, knowledge/ technology and marketing of agricultural produce</p> <p>c. networking with line agencies, development organizations and private sector for the mobilization of support services</p> <p>ii. Effectiveness of procedural guidelines to be adopted in CMIASP sub-projects fostering evolution of multifunctional WUAs</p>	<ul style="list-style-type: none"> • Sub-Project BME Report • Sub-Project Progress and Completion Report • Sub-Project Evaluation Report <ul style="list-style-type: none"> • Review of international and domestic experiences with multifunctional WUAs • Review of policy frameworks and institutional arrangements fostering and/or impeding evolution of multifunctional WUAs • Process documentation report on selected subprojects 	<p>Assumptions:</p> <ul style="list-style-type: none"> • Willingness and cooperation of the WUAs in accepting enhanced roles in the management of irrigated agriculture • Necessary system operational for continued monitoring of and evaluation of performance • Appreciation of value and continued support from within and outside DOI • FOs stationed in the subprojects continue to get effective cooperation from the WUA, users and project personnel <p>Risks:</p> <ul style="list-style-type: none"> • Conducive political conditions prevailing throughout the project cycle • Timely execution of the project cycle envisioned under CMIASP
<p>Outputs:</p> <p>1. Analysis of factors, environments and prerequisites for evolution of multifunctional WUAs</p> <p>2. Analysis of policy framework and institutional arrangements fostering and/or impeding evolution of multifunctional WUAs</p> <p>3. Documentation of success stories with the evolution of multifunctional WUAs</p> <p>4. Development of procedural guidelines leading to multifunctional WUAs and identification of need of the support services thereof</p>	<p>i. Review and synthesis of experiences with the development of multifunctional WUAs within the country and outside</p> <p>ii. Review and analysis of policy framework and institutional arrangement supporting and/or impeding evolution of multifunctional WUAs</p> <p>iii. Process diagnosis of factors, environment and prerequisites for the development of multifunctional WUAs</p>	<ul style="list-style-type: none"> • Review and synthesis of relevant literatures • Subproject process documentation report • Interim procedural guidelines for adjustments in subproject implementation framework • Final procedural guidelines • Best practices reports 	<p>Assumptions:</p> <ul style="list-style-type: none"> • Willingness and cooperation of the WUAs in accepting enhanced roles in the management of irrigated agriculture • Necessary system operational for continued monitoring of and evaluation of performance • Appreciation of value and continued support from within and outside DOI • FOs stationed in the subprojects continue to get effective cooperation from the WUA, users

			<p>and project personnel</p> <p>Risks:</p> <ul style="list-style-type: none"> • Conducive political conditions prevailing throughout the project cycle • Timely execution of the project cycle envisioned under CMIASP
<p>Activities with Milestones:</p> <p>1. Literature Review</p> <p>1.1 Identification of relevant literatures on success (or failure) stories of multifunctional WUAs from within the country and outside.</p> <p>1.2 Review of literatures focused to analysis of factors, environment and prerequisites leading to evolution of multifunctional WUAs</p> <p>1.3 Comparison of scope of engagement of WUAs in irrigated agriculture in other countries, including those in the region.</p> <p>2. Analysis of Policy Framework and Institutional Arrangement</p> <p>2.1 Review of policy documents on water resources and irrigation supportive/impeding to evolution of multifunctional WUAs. Such documents as Water Resources Strategy (2002), National Water Plan (2005), Irrigation Policy (2003), Irrigation Vision (2004) are expected to be relevant</p> <p>2.2 Review of relevant policy documents pertaining to agriculture and irrigated agricultural system, extension and technology transfer and agricultural support services</p> <p>2.3 Relevant legislations pertaining to cooperative development</p> <p>2.2. Review of project cycle, implementation framework and institutional arrangements pertaining to CMIASP</p> <p>3. Documentation of Success Stories with the Development of Multifunctional WUAs</p> <p>3.1 Identification of FMISs with success stories (also failure stories) with multifunctional WUAs.</p> <p>3.2 Diagnostic studies in the selected FMISs focused to analysis of factors and environment that led to the success (or failure) of multifunctional WUAs</p> <p>3.3 Comparison of effectiveness of WUAs with multiple roles in irrigated agricultural system in Nepal and elsewhere.</p> <p>3.3 Synthesis of information to be used in developing best practices report on multifunctional WUAs</p> <p>4. Development of Procedural Guidelines and Identification of Support Services Leading to Multifunctional WUAs</p> <p>4.1 Identification of FMISs from among CMIASP subprojects for process documentation research</p> <p>4.2 Recruitment and training of FOs and their engagement in process documentation in the selected subprojects</p> <p>4.3 Continued supervision of FOs by the team of researchers from the collaborating institutions</p> <p>4.3 Monthly meeting with the subproject personnel to share the findings of process documentation study in each month</p> <p>4.4 Quarterly meeting with the CMIASP personnel to share the findings of process documentation study over three months duration</p> <p>4.5 Analysis of monthly and quarterly field reports and interpretation of results</p> <p>4.5 Development of procedural guidelines for adjustments in the subproject implementation framework of CMIASP fostering/supporting evolution of multifunctional WUA</p>			<p>Inputs:</p> <p>ADB</p> <ul style="list-style-type: none"> • Comments, suggestions and approval of study approach and methodology • Timely disbursement of funds • Relevant literatures on evolutionary process and performance of multifunctional WUAs from different parts of the world <p>DOI</p> <ul style="list-style-type: none"> • Comments, suggestions and approval of the study approach and methodology • Formalization of steering committee • Access to relevant documents and literatures <p>CMIASP</p> <ul style="list-style-type: none"> • Comments, suggestions and approval of the study approach and methodology • Suggestions on selection of subprojects for process documentation research • Local logistics (office, local transportation and access to computer) for FOs stationed at sub-project level. Honorarium of the FOs to be

	<p>supported from the study fund.</p> <p><u>WUAs</u></p> <ul style="list-style-type: none"> • Access to FOs to WUA documents, minutes of meetings and decisions • Access of FOs to WUA meeting <p><u>IWMI</u></p> <ul style="list-style-type: none"> • Access to information on multi water use system and scope of WUAs in other parts of the world. <p><u>FAO</u></p> <ul style="list-style-type: none"> • Access to information on scope of WUAs in other countries in order to make comparison with scope of engagement of WUAs in Nepal. <p><u>Collaborating Institutions</u></p> <ul style="list-style-type: none"> • Deputation of relevant personnel (as outlined in this document) to work in the study team for the needed duration • Access to computation and communication facilities
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9. Stakeholders Participation

The stakeholders of this study include DOI, DOA, CMIASP, ADB, IWMI, FAO, NFIWUAN, WUAs and water users in the selected subprojects. The participation of the stakeholders in the course of the study, and in utilizing the study findings, have been foreseen through three levels of arrangements made in organizing the study. The steering committee constituted with the representatives from DOI, DOA, CMIASP and collaborating institutions (INPIM-Nepal, *nec* and FMIST) is proposed to function as apex body in ensuring effective execution of the study and quality output. This is also proposed to be used as forum for presentation of quarterly process documentation reports that would be useful in making micro-policy decisions specific to the selected subprojects and making adjustments in the implementation of the subproject framework under CMIASP. At the subproject level, monthly meetings with the participation of the subproject personnel, WUA functionaries and water users would be the forum to share the study findings that is expected to be useful in micro-policy development specific to the subproject.

In addition, two workshops have been proposed to be organized in the course of the study. Of the two workshops, one is proposed to be organized in the inception phase which is expected to be valuable in developing the study approach and methodology based on the inputs from professionals and researchers from a number of relevant organizations. The second workshop is proposed to be organized after the completion of the study which will be essentially focused on sharing the study findings among wider audience.

10. Scope for Replication/Use in Other Countries

Participatory Irrigation Management (PIM) has been adopted as distinct policy framework in irrigation development in most countries in south and south-east Asia. In most these countries, the performance of irrigated agriculture continues to remain below satisfactory. This also continues to remain challenge for the donors, government and development agencies to ensure food security and livelihood improvement for the growing population. The quest has been enhancing the productivity of irrigated agriculture through rehabilitation of irrigation infrastructures and institutional improvements for enhanced operation and management services leading to water use efficiency, crop diversification, increased cropping intensity and increased harvest size. The objectives, expected outcome and implementation framework foreseen in CMIASP is not an isolated example in the region. Similar initiatives are underway in most countries in the region. The findings of this study, in selected subprojects under CMIASP, is therefore, expected to be relevant to similar initiatives in other parts of the world. The relevance and modality of replication of the study outcome would however be dictated by specific national and local level context of the countries in question.

Linkage with IWMI and FAO, two important organizations working on irrigation service reforms, envisaged in the proposed study would help linking this study to global arena. With this the knowledge already generated by these two organizations would be useful in making comparison with scope of engagement of WUAs in irrigated agriculture in other parts of the world.

10. Proposed Budget

SN	Description	Qty.	Unit	Rate	Total	Remarks	
1	Remuneration of 3 Farmer Observers or FOs (one in each system) for a period of 12 months	36	Man months	5,000		180,000	It is assumed that FOs will be involved for about 66% of the PDA period
2	Stationeries for FOs	3	No	4,000		12,000	
3	Training expenses to FOs					40,850	
	a. Participants expenses	3	No	7,750	23,250		Travel 5000; per diem for 5 days 2500; stationary 250
	b. Refreshment during training		LS		5,000		
	c. Instructors expenses	18	Hours	700	12,600		6 hours a day for 3 days
4	Remuneration of 3 researchers for a period of 6 months	18	Man months	20,000		360,000	It is assumed that researchers will be involved for about 33% of the PDA period
5	Travel for researcher (10 visits per system, 5 days in each visit)					225,000	It is assumed that one researcher will visit the system for about 10 times for PDR
	a. Travel	30	Visit	5,000			
	b. Per diem for researcher (5 days per visit for 30 visits)	150	Days	500	75,000		

6	Workshops	2	No	50,000		100,000	
7	Proceeding publication	500	Copies	LS		60,000	
8	Research coordinator (from project design to proceeding publication)	1.5	Man months	60,000		90,000	
	SUB-TOTAL					1,067,850	
9	Contingencies					53,393	5% of sub-total
	GRAND TOTAL (in NRs)					1,121,243	
	In US\$ (1 US\$ = 65 Rs)					17,250	

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