

**Nepal Water Partnership/ Jalsrot Vikas Sanstha
Anamnagar, Kathmandu**

Independent Evaluation of Mai River Area Water Partnership (AWP)



**Consolidated Management Services Nepal (CMS)
Min Bhawan, Kathmandu**

**September 2005
Asoj 2062**

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Preface

This concise report forms an independent evaluation of the older Area Water Partnership (AWP) in Nepal. This AWP named after the Mai River is located in Ilam district of the eastern hills of the country. The evaluation being a part of the regional initiative of the Global Water Partnership-South Asia is concurrently undertaken in other member countries as well.

We are thankful to the Mai River AWP members and key field researchers and informants, who not only supported the evaluation work by providing related information and insightful comments on the evolving network building process, but also rather appreciated the work itself. We are specially grateful to Mr. HIRAKAJI GHALE, socio-economist, for his well organized field work and research that directly addressed the tasks and issues as identified in the terms of reference of the evaluation study.

This evaluation work, to say the least, would not have been complete in time if NWP/JVS partners and peer reviewers had not given their comments and suggestions on the evaluation report as expeditiously as it was possible.

I hope the evaluation report on AWP realistically meets the requirements of both the evaluation study sponsor and the organizer.

Upendra Gautam

ABBREVIATIONS

ADB	:	Asian Development Bank
APP	:	Agriculture Perspective Plan
AWP	:	Area Water Partnership
CBO	:	Community Based Organization
CDO	:	Chief District Officer
CMISP	:	Community Management Irrigation Sector Project
CMS	:	Consolidated Management Services Nepal
CRCD	:	Centre for Rural Community Development
DAO	:	District Administration Office
DDC	:	District Development Committee
DWS	:	Drinking Water Supply
DWSS	:	Department of Water Supply and Sewerage
FMIS	:	Farmer Managed Irrigation Systems
GWP	:	Global Water Partnership
HMGN	:	His Majesty's Government of Nepal
INGO	:	International Non Governmental Organization
IWRM	:	Integrated Water Resources Management
JVS	:	Jalsrot Vikas Sanstha
KW	:	Kilowatt
LDO	:	Local Development Officer
MHP	:	Micro Hydropower Plant
MJS	:	Mahila Jagaran Sangh
MW	:	Megawatt
NCDC	:	Namsaling Community Development Centre
NEA	:	Nepal Electricity Authority
NGO	:	Non Government Organization
NPC	:	National Planning Commission
NWP	:	Nepal Water Partnership
NWRS	:	National Water Resources Strategy
PS	:	Private Sector
RBO	:	River Basin Organization
ToR	:	Terms of Reference
UN	:	United Nations
VDC	:	Village Development Committee
WECS	:	Water and Energy Commission Secretariat
WRSF	:	Water Resources Strategy Formulation
WUA	:	Water Users Associations

1. BACKGROUND

This Report on “**Independent Evaluation of Mai River Area Water Partnership (AWP)**” has been prepared on the basis of Mr. Hirakaji Ghale’s (socio-economist) fieldwork and consultation with various water sector stakeholders in the Mai River Basin, Ilam District, Nepal. As the title suggests, this study has been undertaken to independently evaluate the achievements and constraints of the AWP based on the Terms of Reference (ToR) furnished by Consolidated Management Services Nepal (CMS), partner institution of Nepal Water Partnership/Jalsrot Vikas Sanstha (NWP/JVS). The ToR is attached in Annex A.

The following literatures were reviewed during the course of the Mai River AWP:

- Kankai Mai River Basin Study Report prepared by Jalsrot Vikas Sanstha/Nepal Water Partnership, October 2001
- "Comprehensive Mai Khola River Basin Study" prepared by CMS under Community Managed Irrigation Sector Project (CMISP) for the Asian Development Bank (ADB)
- Minutes of the meetings of Mai AWP maintained in the host institution office, Ilam
- Workshop proceedings of Mai AWP

Representatives from the following organisations/institutions were contacted within the Mai River Basin:

- Various government line agencies such as Local Development Office, Departments of Irrigation, Forestry, Water Supply etc.
- NGOs in the river basins that are active in the water sector
- Representatives/owners of micro-hydropower plants
- Water Users Associations (WUA) including representatives of Farmer Managed Irrigation Systems (FMIS) and Drinking Water Supply Groups.
- Private sector companies involved in micro-hydropower installation

2. INTRODUCTION TO AREA WATER PARTNERSHIP (AWP)

In order to address the water crisis at the global level, the international community endorsed certain water related principles in 1992 during the International Conference on Water and Environment held in Rio, Brazil. These principles are as follows:

- Fresh water is a finite and a vulnerable resource, essential to sustain life, development and the environment.
- Water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels.
- Women play a central part in the provision, management and safeguarding of water.
- Water has an economic value in all its competing uses and should be recognised as an economic good.

Global Water Partnership (GWP) was established in 1996 with the objective of translating the “Rio-Principles” into practice. GWP is an international network open to all organisations involved in water resources management. These organisations include: government institutions, UN agencies, bi-lateral and multi-lateral banks, professional associations, research associations, NGOs and the private sector. GWP promotes Integrated Water Resources Management (IWRM) by creating fora at global, regional and local levels. IWRM is an essential component of good water governance. It consists of a common sense holistic approach to water that integrates hydrological, engineering, social and economic best practices - an approach accepted as desirable by most water professionals. IWRM is a process, which promotes the coordinated development and management of water, land and related resources, in order to maximise the resultant

economic and social welfare in an equitable manner without compromising the sustainability of the vital ecosystems.

The objective of establishing AWP is to provide a platform to water-related institutions and stakeholders for interaction to achieve integrated water resources management (IWRM). The concept of AWP was put forth by GWP in order to provide forums at the local levels. Such forums can then be used to debate on the Rio Principles, dissemination of knowledge on how these principles can be applied in practice, exchange of experiences and mobilisation of fiscal and human resources necessary to achieve IWRM.

However, AWP is not a total replication of GWP at the local level. GWP's mandate is to promote IWRM through global networking. As mentioned earlier, AWP provides a platform to various stakeholders for interaction in the water sector such that IWRM can be achieved at the local level. With the establishment of AWP, the interdependency of various water related institutions and other stakeholders can be identified and furthermore, necessary reforms to achieve IWRM can be put forth on the basis of stakeholders' interaction.

As a result of collaborative efforts from Nepal Water Partnership (NWP)/Jalshrot Vikas Sanstha (JVS), Consolidated Management Services Nepal (CMS) and various local level non-government organizations (NGO), two Area Water Partnerships (AWP) have been established in Nepal. JVS, a non-partisan NGO involved in the water sector, hosts NWP and CMS is a partner institution of JVS as well as a professional consulting firm. The locations and dates of establishment of the two AWP's are as follows:

Name	Location	Date established
Mai AWP	Eastern hills	May 2002
Rohini-Danda-Tinau AWP	Mid-western hills and plains	August 2003

NWP/JVS along with CMS has commissioned an initial study of the Indrawati River Basin located in the central valley and hills of the country. This river basin study was completed in July 2005. NWP/JVS and CMS along with local NGOs are now initiating the process of establishing a third AWP in the Indrawati Basin located in the central hills of the country. Details of NWP/JVS key activity dates in promoting AWP are presented in Annex B.

In the Nepalese context, past water resources planning activities have been generally based on political/administrative boundaries rather than in the context of river basins. Furthermore, the approach has been more sectoral-based (e.g. irrigation, drinking water supply, hydropower etc.) and a holistic view of water resources was lacking. The practice of assessing water resources by considering the entire river basin is still in its infancy. Realizing the need to holistically address water resources planning and management, His Majesty's Government of Nepal (HMG/N) has promulgated the National Water Resources Strategy (NWRS), which is considered as the umbrella policy document of the country in the water sector. NWRS has identified the following guidelines to address IWRM:

- Development and management of water resources shall be undertaken in a holistic and systematic manner;
 - Water utilisation shall be sustainable to ensure conservation of the resources and protection of the environment. Each river basin system shall be managed holistically;
 - Delivery of water services shall be decentralised in a manner that involves autonomous and accountable agencies (e.g. public, private, community and user-based agencies);
 - Economic efficiency and social equity shall guide water resource development and management;
- and

- Participation of and consultation with all the stakeholders shall constitute the basis of water sector development.

The above NWRS guidelines on IWRM are linked with the objective of establishing AWP, which is to provide a network for water related institutions and stakeholders for interaction to achieve IWRM. This is a bottom up approach, which aims to promote IWRM at local levels by establishing networks to discuss and seek practical solutions to emerging water issues. If communities become aware of the importance of IWRM and embrace the concept, it would be easier in the national level make the shift from sectoral view of water resources towards an integrated approach. AWP is envisioned to be such a forum at local level, which could provide a common platform to all water sector stakeholders and thus promote IWRM through consensus. Given the topographical features and available infrastructure of the country, AWP can be the building blocks to eventually form larger river basin organizations (RBO).

3. RESOURCE PROFILE OF MAI AWP AREA

Mai Khola, a tributary of the Kankai river basin is a spring fed perennial river that originates from the Mahabharat range at an elevation of about 3300 m above mean sea level (amsl). The river flows north to south and takes the name of Kankai Mai downstream of its confluence with Deb Mai Khola. From this reach onwards, the nature of the river changes from "confined bed rock type" to alluvial (i.e., flows through its sediment deposit) with start of flood plains. The Kankai Mai becomes Kankai as it enters Jhapa District and downstream from this reach it is completely alluvial in nature with significant flood plains.

For the purpose of establishing Mai AWP, the catchment area upstream of the Kankai Mai river at Chepte (elevation around 300 m amsl) has been considered. The entire catchment area of 1150 km² lies within the district of Ilam. The catchment area is well protected with vegetations, which include forest and tea shrubs. The Kankai-Mai river receives flow contributions from the flowing major tributaries:

- ◆ Mai Khola, Jog Mai Khola and Puwa Khola located north east of Chepte. Note that Jog-Mai khola and Puwa Khola take the name of Mai Khola downstream of their confluence with Mai Khola.
- ◆ Deb Mai Khola north west of Chepte.

The catchment area of the Mai AWP is presented in Figure 1.

At present the population within the basin have just started to experience some level of water stress such as supply of piped water (potable) to households and water use conflicts between hydropower and irrigation (see below). The urban and semi-urban areas, namely Ilam Municipality and Phical Bazaar have piped water facilities. Furthermore, these facilities are being expanded by the Department of Water Supply and Sewerage (DWSS) of the Ministry of Housing and Physical Planning, HMGN.

Tea shrubs are planted along the hill slopes and these do not require any irrigation water. The Water Users' Associations (WUA) i.e., Farmer Managed Irrigation System (FMIS) in the catchment area use various tributaries of the Kankai-Mai river basin water for irrigation. Hydropower is the only major non-consumptive use of water in the river basin. Nepal Electricity Authority (NEA, an undertaking of HMGN) owns and operates the 6.2 MW Puwa Khola Hydropower Plant. Its design discharge is 2.5 m³/s, which is diverted from Puwa Khola (50 m downstream of the confluence between Puwa Khola and Ghatte Khola). From the intake the flow is diverted to the powerhouse (at Mai Khola) via a 3.2 km long headrace tunnel followed by 990

m long penstock pipe. The tail water is discharged into the left bank of Mai Khola. This plant was commissioned in April 2000 and is connected to the national electricity grid. Due to the implementation of this hydropower project, the flow of the river between the intake at Puwa Khola and the tailrace at Mai Khola has been lowered (up to 2.5 m³/s) which has effected adversely affected the Lamiduwali Puwajunj Irrigation System located downstream of the Plant's intake.

There are also about 190 isolated (i.e., off the national electricity grid) micro-hydropower plants that use the water from the tributaries of the Kankai-Mai river basin, primarily for electric ity generation (followed by agro-processing). Most of these micro-hydropower plants are of less than 5 kW installed capacity (known as Peltric Sets) that supply electricity to about 20 – 30 households near the powerhouses. Only 4 plants have installed capacity beyond 5 kW (largest plant is of the 50 kW Mabu micro-hydro).

Currently, Sanima Hydropower (P) Ltd. (a private sector hydropower company) is undertaking a feasibility study of a 13.4 MW Mai Hydropower Project. This is a run of river scheme (with an option for daily pondage) located in Chisapani, Danabari and Soyak Village Development Committees (VDCs), some 22 km north form the east-west highway Birtamod, Jhapa).

The population and demographic figures as cited in the Kankai Mai River Basin Study (2001, NWP/JVS) are presented in Table 3.1.

Table 3.1 Population and demographic data

Description	Ilam District	Catchment area
Population (in 1991)		
Total	229,214 (As per 1991 census)	155,900 (estimates based
Male	115,377	78,500 area correlation and
Female	113,837	77,400 1991 census)
Ilam Municipality	13,197	13,197 (within Catchment area)
Gender-sensitive development		
Life expectancy (years)		
Male	61.3	61.3
Female	58.1	58.1
Adult Literacy		
Male	64.09	64.09
Female	34.42	34.42
Mean years of schooling		
Male	3.72	3.72
Female	2.13	2.13
Proportion of income earned by Females	0.24	0.24
Rank (gender sensitive dev.)	11	(Since the catchment area occupies a significant portion of the district these parameters are expected to be similar)
Households (in 1991)		
Total	41,450 (As per 1991 census)	28,200
Avg. Household size	5.5	5.5
Households in Ilam Municipality	2718	2718 (Ilam municipality is within the catchment area)
Land use		
Forest cover (ha)	16,057	10,900
Pasture land (ha)	1743	1,180

Cultivable area (ha)	100,037	68,000
Tea state (ha)	1961	1,300
Land Holdings (in 1991)		
No. of holdings	37,900 (As per 1991 census)	25,800
Avg. holding size (ha)	1.45	1.45

The estimated total population in 2001 in the catchment area in 2001 was estimated to be 200,7000 (Kankai Mai River Basin Study, NWP/JVS, 2001)

Tea production followed by ginger and cardamom are the major cash crops that are cultivated in the catchment area as well as within the district of Ilam. Most hill slopes along the roadsides are covered with tea shrubs. According to a study conducted by SAPROS-Nepal (ref 3.), Ilam ranks 14 out of 75 districts of the country based on weighted scores covering poverty deprivation, institution and infrastructure development, women's empowerment and natural resources. As can be seen from Table 3.1, in terms of gender sensitive development, this district ranks 11.

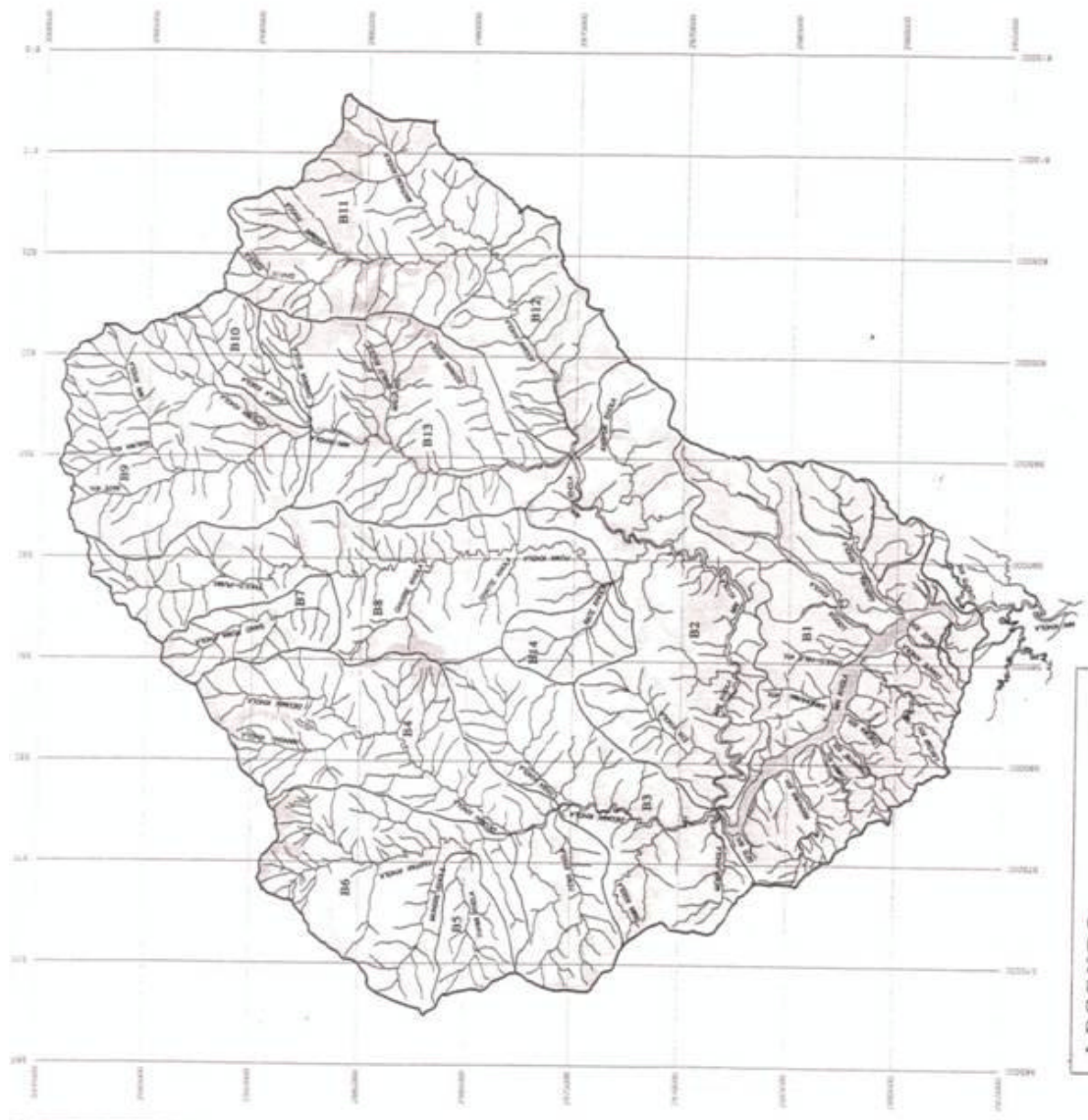


Figure 1 *Catchment Area of Kankai-Mai River*

4. INSTITUTIONAL SETUP AND ACTIVITIES IN MAI AWP

4.1 Establishment of AWP

As stated earlier, NWP/JVS sponsored a preliminary Mai River Basin study to document the basin characteristics, demography, socio-economic condition and to identify current and impending water issues as well as institutions that are active in the water sector. The basin study report was completed in October 2001. Based on the findings of the Kankai Mai River Basin Study, JVS's partner institution CMS organised a workshop in June 2002 in Ilam Municipality (which is in the Mai River Basin) to present the findings of the report and to discuss whether the establishment of an AWP would be beneficial. Representatives from community organizations, private sector, NGOs, local government bodies and government line agencies involved in the water sector participated in the workshop. At the end of the workshop, a consensus was reached to establish such an Area Water Partnership with Namsaling Community Development Centre (NCDC), a local NGO acting as the host institution. An ad hoc committee was formed from among the participants to duly register the AWP with the local authority (District Administration Office - DAO). However, registering the AWP network as an NGO with memberships from both government and non-government line agencies had legal implications and the DAO on its own was not able to decide on this issue and requested the Ministry of Water Resources for advice. Since the registration process became lengthy, the ad hoc committee along with other members decided to establish the AWP as a network with NCDC as the host institution.

During the workshop one major issue that was raised was that at project implementation phase, the knowledge base required for adopting basin wide approach is severely lacking at the local level. The participants expressed the view that unless there is adequate assessment of water resources including inventory of present usages and potential use for future socio-economic growth in a basin-wide basis, institutions and legal arrangements alone would not be very useful. As a result of the earlier initiatives undertaken by NWP/JVS, and NCDC in Ilam, the Mai River basin (only basin in Ilam) was chosen as a pilot river basin to undertake a comprehensive water resources assessment study.

The study was undertaken by CMS as part of the Community Managed Irrigated Agriculture Sector Project (CMISP) supported by the Asian Development Bank. Since the Mai AWP had been providing a network of all water-related institutions at the local level, its cooperation was sought in the planning of the project study through information sharing and consultation. A stakeholders' consultative meeting was organised jointly by Mai AWP and CMISP Consultant in 25 April 2003, to mainly share experiences and to seek suggestions from the participants to ensure that the Project could be designed to meet sustainable irrigation development target. Representatives from local institutions such as Local Development Office, Water Supply and Sanitation Division and District Soil Conservation Office, Eastern Irrigation Development Division, District Agriculture Development Office attended the meeting. Similarly, NGOs such as NCDC, Micro-Hydro Entrepreneurs Forum, Federation of Nepal Journalist, and District Federation of Water User Association of Nepal also participated in the consultative meeting. The major concern that was raised during the meeting was the need to strengthen local capability in the water resources sector.

In the pilot project study, the Mai River Basin was delineated into 14 individual blocks as sub-basins using available 1:25,000 scale topographic maps. Cultivated land was considered the most potential consumptive user of water for which water balance calculation is most essential. The block sizes were therefore generally based such that a minimum area of existing cultivated land of 1,000 ha could be allocated in each block. Land utilisation maps were used in the basin study to estimate area of cultivated land in the basin.

The second consideration was to demarcate the block in such a way that it had at least a main stream with sub-basins forming outer boundary of the block. Thus, the blocks were delineated according to sub-basin physical boundaries. Block boundary was matched with the boundary of

models for the estimation of hydro-meteorological parameters. The third criterion was based on block delineation such that most of the available regional approaches for the estimation of hydro-meteorological parameters could be demonstrated. Mai AWP network partners shared information and views with the Consultant's team during the fieldwork for this pilot project study.

The major findings of the comprehensive basin study was that out of the 14 blocks delineated, two blocks are already water stressed and another two have just sufficient flows to meet the present demand, i.e., these two blocks will not be able to meet increased water demand in the future unless system and management efficiencies are enhanced.

NWP/JVS in association with CMS organised another workshop in Ilam Municipality in June 2004 to present the findings of the comprehensive Mai River Basin Study and to discuss with the local level water sector stakeholders the relevance of such studies. The AWP network members concluded that the Mai River Basin study had established a methodology that the institutions in the water sector can adopt in future IWRM studies. They expect water accounting in a basin to eventually be a prerequisite for implementing any project to ensure adequate availability of water and at the same time not to adversely affect other existing infrastructure within the basin.

Key activities that have been undertaken by AWP are presented in Annex C

4.2 Mai AWP Membership

The Mai AWP network currently includes 37 members from the following categories:

- Central Government Line Agencies - 7
- Local government bodies - 3
- NGOs in the river basin - 8
- Irrigation Users Association - 5
- Drinking Water Users Association - 4
- Micro-hydropower groups - 4
- Others - 6

The detailed list of AWP members is presented in Annex D

4.3 AWP Establishment Process, Representation and Weakness

From the category of memberships in Mai AWP, it appears that AWP is attempted to establish a broad based representation in the partnership. Community of water users, government line agencies, elected bodies, NGO including media organization are currently members of the AWP. Thus, the Mai AWP has become an "all encompassing" network of water sector stakeholders in the Mai River Basin with Namsaling Community Development Center (NCDC) as the host institution.

NCDC is a non-governmental and non-profit making organization (NGO) based in Namsaling VDC of Ilam District. It was officially registered as an NGO in 1998 with the Ilam District Administration Office and Social Welfare Council Nepal. NCDC's headquarters is in Namsaling and it has a project office in Ilam Bazaar. Independent and publicly elected board of directors governs this NGO. NCDC's mandate is to promote community self-reliance and decentralisation. It has been working with civil institutions, government and the local communities to improve access to public services, mainstream public participation in development reform, and to promote integration of local priorities in development activities. Given NCDC's mandate, institutional setup and its sphere of activities, it appears to be most suited among the local NGOs to host the AWP network.

In view of the legal system of the country, which is sectoral based, it was not practical to register the network. Three general types of legal entities that are registered according to the prevailing laws of Nepal are - companies (private & public), cooperatives and NGOs. Although, the AWP network fits well into the NGO category, representation from government line agencies in an NGO raised legal issues that the District Administration Office (DAO) alone was not able to resolve. Thus, the registration process itself led to the decision by the members to establish the AWP as a network with one local NGO as a host institution, i.e., NCDC hosting the AWP network is the product of the registration process. In hindsight, the AWP network has also been able to avoid costs associated with establishing (and operating) a new institution.

The Mai AWP network's strengths and capabilities lie on the strengths and capabilities of its members, most of which are institutions (rather than individuals). More significantly, its legitimacy emanates from the legal status of its members, most of which are duly registered entities. Thus, the institutional status of AWP is clearly that of a network duly recognized by its members with NCDC facilitating day to day activities as necessary. The "all-inclusive" process adopted in establishing Mai AWP network stands out as the unique characteristic. Plurality and stakeholders' diversification are well reflected in its membership as can be seen from Annex D.

As can be seen from Annex C, to date there has been 8 workshops and meetings of the Mai AWP. Such workshops and meetings have included discussions on IWRM, awareness on AWP and resource profile of the Mai River basin. A major achievement has been the selection of the Mai Basin as a pilot project for the ADB's CMSIP comprehensive river basin study. The primary reason for selecting this basin was the fact that an AWP had been established which could be used for data compilation, fieldwork and logistics.

GWP has formulated broad guidelines for establishing AWP. Based on the guidelines, NWP/JVS has prepared AWP selection criteria taking into account the country's geography, water resource and hydrology, governance systems and infrastructure available. The Mai AWP meets all of the criteria listed below.

Selection criteria	Remarks
There needs to be a perennial river in the AWP area.	"Mai River is perennial
Minimum catchment area of the basin should be 1000 km ²	Mai catchment area considered for establishing AWP is 1150 km ² .
The basin/catchment area should be experiencing some level of water stress	Symptoms of water stress can be observed in the Mai basin. e.g., hydropower vs. irrigation
Grassroots level interest in IWRM should be demonstrated	Various government agencies, NGOs and Water Users' Associations (WUA) expressed their desire to form an AWP network during the initial workshop in 2002.

A current weakness that has been observed in the Mai AWP is that they have yet to fully internalise the "spirit of the network" and become proactive. Most meetings and workshops have occurred on project mode (Annex B). In the backdrop of emerging water conflicts (e.g., irrigation vs. hydropower), the members should have had been utilizing the network to resolve such issues and for other internal purposes. This internalisation of network spirit is one area where the Mai AWP seems to require further intensive orientation.

5. VIEWS OF AWP NETWORK MEMBERS

During this evaluation study, a field visit was made in the Mai River Basin and discussions were held with various AWP member institutions. The summary of the issues and possible remedial measure stated by the members are discussed hereafter and the details are presented in Annex E.

The members regard AWP network useful to share information, reach consensus on water disputes and to plan for further water resources development. They have mentioned that a significant impact that AWP network has made is in increasing the awareness level in IWRM. The members have started implementing more water conservation activities within the Mai sub-basins. Since there are more dialogues among the water users, the marginalized stakeholders now feel that they have a higher likelihood of having their voices heard.

The AWP members have stated that the current obstacle in further inclusively strengthening the Mai River AWP (or any other grassroots level network) is the absence of local level elected bodies such as representatives from the village committees, municipalities, and district committee and non-compliance to a common set of rule by the political actors due to long-drawn political conflict. Their lacking affects the total effectiveness and adaptive growth of an innovative and bottom up network like the AWP, and inherently hinders the AWP strengthening process.

As the Mai AWP is still in its infancy, most members are of the opinion that there is a need for external support from NWP/JVS for capacity building, at least for a few more years. This is especially so in the backdrop of the ongoing political conflict in the country. Technical support including information on best practices in IWRM and nominal funding support for AWP seminars and workshops are the major areas where members have requested for external support.

6. SUSTAINABILITY OF MAI AWP

As discussed earlier, the sustainability of the Mai AWP is closely linked with the sustainability of the member institutions. As the Mai AWP network member institutions are able to undertake more water resources activities and generate funds internally, it will become financially more sustainable. The members expect the AWP network to become financially sustainable in another two years. However, this is also linked with how soon the “on going political conflict in the country” is resolved and local elected bodies become functional. Given NCDC’s mandate, institutional set-up and its sphere of activities, it appears to be most suited among the local NGOs to host the AWP network.

The inability of Mai AWP to regularize the "spirit of the network" by candidly talking about the problems between its members and become proactive in resolving the problems with an IWRM perspective is an issue that needs to be addressed for sustainability of the network. Some members have realized this inherent weakness and have also stated it during field interaction. Other views expressed by the AWP members regarding the sustainability of the network are summarised below:

- AWP guidelines should be prepared (in Nepali language) and circulated among as many water users as possible so that awareness can be raised at local level
- The AWP members need to be assigned with specific responsibilities and workshops should not be limited to district headquarters only. If workshops were also organised in field level, it would go a long way in disseminating IWRM principles and practices in grassroots level.
- Between workshops and seminars, there needs to be some follow-up activities. Long gaps between AWP network meetings hinder its sustainability

7. CONCLUSIONS FROM THE EVALUATION STUDY

Mai AWP was chosen for selected for evaluation study by NWP/JVS as it is the older network among the two that have been being developed in the country. The stakeholders in the Mai River Basin are of the opinion that the AWP has facilitated to form a unified network among various water users. One major benefit has been a comprehensive river basin study which has made them aware of the resource profile of the basin which can be used in future water resources development planning. Further conclusions that are derived from this evaluation study are summarized below:

- Given the resource constraints and the "network nature" of AWP, establishing it with an active non-partisan, local NGO as a host institution is an efficient way of promoting IWRM at local level. With such an approach, costs associated with establishing (and operating) a new institution can be avoided.
- Since the Mai AWP has representation from both, government and non-government agencies, its registration as a separate entity according to the prevailing laws of the country does not appear to be feasible. Its institutional status as a network duly recognized by the members and hosted by an active NGO (selected by consensus from the members) is a viable alternative. Mai AWP's legitimate institutional status is derived from its members most of which are duly registered legal entities (NGOs, community organizations, local elected bodies and government line agencies).
- Although, the Mai AWP network has not formally defined its vision, from the stakeholders' consultation, the *implied vision* appears to be "to build indigenous capacity such that the network members are able to participate in comprehensive basin planning on their own for integrated development of water resources and their effective management".
- The built in "all inclusive" nature of the network with representation from government, private and public sectors is a unique characteristic of the Mai AWP.
- The constraint at present in further inclusively strengthening the Mai River AWP is the absence of local level elected bodies such as representatives from the village committees, municipalities, and district committee and non-compliance to a common set of rule by the political actors due to long-drawn political conflict.
- The sustainability of Mai AWP is dependent on the sustainability of its members and the activities that they can undertake in the water sector. For another two years the network will require some external assistance before it can become financially viable, especially in light of the ongoing political conflict in the country.
- The Mai AWP members will have to eventually overcome the inability to internalising the "spirit of the network" by talking about their own problems with an IWRM perspective and become proactive in resolving them.
- The District Development Committee (DDC) is responsible for development activities of a district and is governed by local elected representatives. Since the DDC plays a major role in the district, it is also important to strengthen it in tandem with the AWP network.
- Since the AWP is in its infancy, it has not yet made any measurable impacts on livelihoods of river basin communities and specially the poor and marginalized population. However, the marginalized population state that the AWP can at least provide them with a forum where their voices can be heard.
- AWP actions have yet to make an impact on national policy formulation on natural resources. However, AWP supports the policy objective of the National Water Resources Strategy of promoting IWRM at grassroots level by providing a bottom-up institutional base.

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ANNEX A
Terms of Reference (ToR) for
Independent Evaluation of Mai Khola AWP

As a result of concerted efforts from Nepal Water Partnership (NWP)/Jalshrot Vikas Sanstha (JVS), Consolidated Management Services Nepal (CMS) and various local level non-government organizations (NGO), two Area Water Partnerships (AWP) have been established in Nepal with the objective of providing forums at local levels to promote Integrated Water Resources Management (IWRM) and seek practical solutions to water related issues through dialogues. JVS, a non-partisan NGO involved in the water sector, hosts NWP and CMS is a partner institution of JVS as well as a professional consulting firm.

Mai River Basin located in the eastern hills of the country is the first AWP, which was established in May 2002. NWP/JVS through its partner institution desires to commission an independent study in order to evaluate the performance of Mai AWP, identify the obstacles and to recommend measures to strengthen the network/partnership. The specific scope of work of the Independent Evaluator is as follows:

- 1) Indicate the basis on which the longest functioning AWP was determined for the study and give justification.
- 2) Comment on whether the subject AWP meets the selection criteria spelt out by GWP SAS in 2001-2002
- 3) A resource profile already exists for the Mai AWP area. The Independent Evaluator should include relevant sections of this resource profile in the report.
- 4) Comment on the process of establishment of the AWP- paying attention to the structure, membership, frequency of meetings and local action for promoting IWRM. Comment on the process followed to promote broad based membership and partnerships.
- 5) Visit the AWP area, and meet with critical local, stakeholder groups and obtain their responses on process, content, outputs and impacts. Has the AWP developed a vision and a plan of action?
- 6) What is the institutional status? Registered society, company etc. Comment on the long term viability of the institutional form.
- 7) Document direct and indirect impacts due to AWP actions to its membership and River basin community. Comment on the impact of AWP actions on National Policy formulation on natural resources
- 8) Prospects of AWP becoming self-reliant institutionally and financially; if so, by when? Recommend how the AWP network can be strengthened.
- 9) Comment on impact of AWP on livelihoods of river-basin community with special reference to poor and the marginalized groups
- 10) Comment on the stakeholders' understanding of the role of AWP and the roles and relationships of Partners
- 11) What are the problems and constraints faced by AWP in establishment and function? What remedial measures can be suggested?

ANNEX B

Nepal Water Partnership (NWP)/JVS Area Water Partnership key activities

SN.	Name of the water source AWP is based on	Location of AWP network and its host	Geographic/development characteristics	Sub-basin/stakeholders' study	Participatory stakeholders' workshop and formation of AWP network committee	Follow-up IWRM interaction * By AWP network committee
1	Mai Khola River	Ilam Bazar, Ilam district, hosted by Namsaling Community Development Center (NCDC)	Eastern Hills (water supply, irrigation and micro-hydro)	Completed in October 2001	Completed in -Workshop May 2002 -Ad hoc AWP network assembly/committee May 2002 -AWP network assembly/committee at the host institution** February 2003	Completed in June 2004
2	Rohini-Danda-Tinau River	Butwal, Rupendehi district, hosted by Center for Rural Community Development (CRCD)	Western Tarai/Mid-hills (surface and groundwater water supply, irrigation, flood/inundation)	Completed in November 2002	Completed in -Workshop August 2003 -Ad hoc AWP network assembly/committee August 2003 -AWP network assembly/committee at the host institution** October 2004	Completed in October 2004
3	Indrawati River		Central Valley/Hills (water supply, hydropower, irrigation, water diversion)	Completed in July 2005	Being planned	After participatory stakeholders' workshop

*Strengthening networking and consultation process for IWRM.

** Legal facilitation of the AWP network assembly/committee by the host institution.

ANNEX C

Details of key activities carried out by Mai AWP

S. No	Activities	Date	Participants	Objectives of the Workshop and meetings	Results
1	Organized Workshop on Mai Basin Area Water Partnership, Ilam,	17 May 2002 (Ilam, Sungava Club)	52 from GOs, NGOs, line agencies, private sector, water users, VDCs, DDC, INGOs, Journalists, etc.	<ul style="list-style-type: none"> Introduce concept of AWP as well as the need to establish such a partnership to potential members Identify the members of AWP in Mai River basin in Ilam. Establish initial networking and receive feedback from the stakeholders of the Mai river basin. Register the participants as AWP members or at least initiate the registration process. 	<ul style="list-style-type: none"> Raised awareness among participants on AWP and discussed their water related problems. Identified the potential members of area water partnership for the network Formed ad-hoc committee of AWP in Mai River Basin for Network formation and registration process
2	Organized Mai River basin AWP committee meeting	8 August 2002	20 Ad hoc Committee members and NCDC staffs	<ul style="list-style-type: none"> Follow up AWP workshop plan Discussion on draft constitution of Mai River Basin AWP network Formation of registration committee for network registration Start AWP registration process 	<ul style="list-style-type: none"> Reviewed previous workshop and its plan Discussed on draft constitution and formed Acting committee (13 members) for the AWP registration Decided on AWP registration with District Water Resource Committee ("Jilla Jalshrowt samiti")
3	Registration committee meeting	11 August 2002 /26	13 Registration committee members	<ul style="list-style-type: none"> Discussion on draft AWP constitution and its finalization 	<ul style="list-style-type: none"> Finalized the constitution of Mai River Basin AWP forum.
4	Held registration committee meeting and applied in DDC for registration of AWP	15 August 2002	Registration committee members and NCDC	<ul style="list-style-type: none"> Preparation of necessary documents for registration as well 	<ul style="list-style-type: none"> Organized water resource meeting in DDC Ilam for registration of AWP constitution and recommended that AWP should be registered in District Administration Office (DAO) in Ilam
5	Collected some funds by the members organization	18 September 2002	Registration committee members	<ul style="list-style-type: none"> Fund raising 	<ul style="list-style-type: none"> Rs. 500 paid for registration process in DDC Ilam

6	Held registration committee meeting and applied in CDO office	24 October 2002	Registration committee members	<ul style="list-style-type: none"> • Register the forum in CDO office 	<ul style="list-style-type: none"> • CDO organized a meeting for the forum registration and to be aware of the legal process for registration. But he could not register the AWP because of the legal complications and decided to forward the application to Ministry of Water Resources.
7	Organized Mai River Basin Area Water Partner Forum meeting	25 April 2003	17 Network members and district level line agencies	<ul style="list-style-type: none"> • Formulate mechanism to register and operationalize AWP. 	<ul style="list-style-type: none"> • Recommended for modification of AWP constitution and formation of another committee of water partnership with individuals and NGOs, private sectors and users.
8	Organized Workshop on Mai Basin AWP in Ilam	23 June 2004 (in DDC office, Ilam)	32 Network participants and District level line agencies	<ul style="list-style-type: none"> • Present basin study report and receive feedback from participants • Discuss on usefulness and value of the Mai River basin study report as well as to prepare local level plan on the basis of study report. 	<ul style="list-style-type: none"> • Finalized the Mai basin study report. • Identified possible planning process for the AWP network

ANNEX D

Mai AWP Membership

S. No	Members	Location of Program area	Implementing activities within the Mai river basin by the Network members	Remarks
Govt. line agencies:				
1	Regional Irrigation Office, Jhapa Chandragai	Jamuna, Soyang, Puamajuwa, Sangrumba, Ilam municipality, Godak, Namsaling, Pashupatinagar, Fikkal	<ul style="list-style-type: none"> Construct and repair of irrigation canals Provide training to the users for water conservation and use 	Involved in all meetings, workshops and committee member of the AWP
2	District Soil Conservation office, Ilam	<ul style="list-style-type: none"> Maimajuwa, Godak 	<ul style="list-style-type: none"> Watershed management activities - soil conservation, drinking water supply, plantation etc. 	
3	District Agriculture Development Office, Ilam	<ul style="list-style-type: none"> Most part of Mai basin 	<ul style="list-style-type: none"> Inputs on agriculture production and promotion for farmers Provide trainings, agri-inputs to the farmers 	Participated in workshop and meetings
4	District Drinking Water Supply Office	<ul style="list-style-type: none"> Babote, Ilam Municipality, Godak, Soyang, Soyak, Fikkal, Pashupatinagar, Panchakanya, 	<ul style="list-style-type: none"> Drinking Water Supply 	Committee Member of the AWP
5	District Infrastructure Development Office	DDC program area	<ul style="list-style-type: none"> Construction work such as DWS, Irrigation, road, building etc. 	Participated in workshops and meetings
6	District Forest Office	<ul style="list-style-type: none"> Most part of Mai basin 	<ul style="list-style-type: none"> Forest conservation and development 	
7	NEA	<ul style="list-style-type: none"> Gorkhe, Ilam Municipality, there is power generation 	<ul style="list-style-type: none"> Electricity 	Puwa Khola Hydro Electric Plant, 6.2 MW
Local Government Bodies:				
There are 49 VDCs and 1 municipality within Ilam district and most of the VDCs are within the Mai river basin. Since it is not practical to include all VDCs as AWP members, only those that have extensive water uses have been included below:				
1	District Development Committee	<ul style="list-style-type: none"> Most part of Mai basin 	<ul style="list-style-type: none"> District Development activities like DWS, Irrigation, Road, education, 	During the initial phase of AWP of Mai basin, they were highly convinced but now there is a new LDO and DDC bodies & they need to be made aware of the AWP concept.
2	Ilam Municipality	<ul style="list-style-type: none"> Municipal area 	<ul style="list-style-type: none"> Municipal Development Activities 	Network committee member
3	Mabu, Jamuna, Barbote, Soyang, Namsaling, Jogmai, Gorkhe, Fikkal, Godak, Danabari, and Chisopani VDCs of Mai river basin		<ul style="list-style-type: none"> VDC development activities, most of the VDC's are supporting DWS, road construction, school building and irrigation canal construction activities within the community. 	Some of the VDCs are members of the AWP network and Mabu, Namsaling and Danabari VDCs played a larger role for network registration. However, now there is no elected body so most of the VDCs are not active in the AWP network.
NGOs:				
1	Namsaling Community Development Center (NCDC) located in Ilam	<ul style="list-style-type: none"> Most part of the Mai basin 	<ul style="list-style-type: none"> Community Development activities such as Drinking Water Supply (DWS), Alternative energy promotion 	NCDC is the lead and host institution for the AWP network in the Mai River Basin.

			<ul style="list-style-type: none"> • Social mobilization • Community forest management • Ecological Agriculture • Biodiversity conservation • Policy advocacy and lobbying 	
2	Mahila Jagran Sangh (MJS) located in Ilam headquarter	<ul style="list-style-type: none"> • Ilam, Program covered 6 VDCs of Mai Basin 	<ul style="list-style-type: none"> • Saving & credit • DWS program • Community Development activities 	Highly active NGO in AWP
3	Ilam Cooperation Council located in Ilam	<ul style="list-style-type: none"> • Jamuna, Mabu, Maimajuwa, Pashupatinagar, Danabari, Barbote VDCs 	<ul style="list-style-type: none"> • DWS • Social mobilization and community development activities within Ilam 	Participated in workshops and meetings
4.	Sungava Club located in Ilam	<ul style="list-style-type: none"> • Most part of the Mai basin 	<ul style="list-style-type: none"> • DWS • Social mobilization and community development activities within the district 	Participated in workshop and meeting
5	Mahila Kalyan Samaj located in Ilam	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Promotion of women literacy and social mobilization activities 	Just participated in the workshop
7	Suryodaya Yuwa club, Chisapani	<ul style="list-style-type: none"> • Chisapani, Danabare, Mahamai 	<ul style="list-style-type: none"> • DWS, • Social mobilization activities 	Participated in AWP workshop
8	Hill View Club, Sumbek	<ul style="list-style-type: none"> • 6 VDCs of northern part of Ilam 	<ul style="list-style-type: none"> • DWS • Saving and credits 	Participated in the workshops
Community Organizations				
(a) Irrigation Users Associations :				
Member of AWP and active in promoting AWP				
1	Bhute khola, Soyang	Soyang ward 3,4,5	Irrigation	Participated in workshops
2	Soyang khola, Namsaling	Ward 4,5,6,7,8	Irrigation	Active member of AWP
3	Ingla khola Jamuna	Jamuna 4,5	Irrigation	Active member and selected for the AWP committee
4	Puwa khola, Ilam Municipality	Ilam ward 4,5	Irrigation	Participated in workshop
5	Shaktiman, Sangrumba	Sangrumba ward 4,5	Irrigation	Selected for the committee
(b) Water Users Association (DWS):				
There are more than 200 Drinking water supply groups within the Mai river basin. The following four major and active groups are AWP members:				
1	Dadagawn DWS, Barbote	Biplate	Drinking water supply	Selected for the committee
2	Gitang khola, Ilam Municipality	Ilam Bazaar	Drinking water supply	
3	Sugure DWS, Namsaling VDC	Namsaling ward 2,3,4,7	Drinking water supply	Participated in Workshop
4	Fikkal DWS, Fikkal	Fikkal Bazaa	Drinking water supply	Active DWS and participated in workshops
(c) Micro Hydro:				
Of the 6 micro hydro power plant, the following four are members of AWP				
1	Dhuwakhola MHP Jamuna 7 kw, Jamuna	Jamuna ward 3,4	Electricity supply Water mill	Active and selected for the AWP committee
2	Tribeni MHP mabu 50 kw, Mabu	Mabu VDC	Electricity supply and water mill	Active and selected for the AWP committee
3	Rupetar MHP, Gorkhe	Gorkhe ward 2	Electricity supply Water mill	Active and selected for the AWP committee
4	Puwa Khola, Hydro Power, Ilam Municipality	Ilam Golakharka	Electricity supply	Member of the network
(d) Peltric sets (PS):				
There are more than 200 peltric sets (micro-hydropower plants less than 3 kW installed capacity) within Mai river basin. The following are representative members of the AWP				
1	Simsara khola PS	, Chamaita- 1	Lighting	Active and selected for the AWP committee

2	Inglakhola PS	Jamuna – 6	Lighting	Participated in workshops
Private Sectors				
1	Kaji Shrestha,	Barbote, Ilam	PS Installer	Participated in workshop
2	Krishna Subedi,	Fikkal	PS Installer	AWP Secretary
3	Krishana Khanal ,	Jamuna	Technician of PS installation	Participated in workshops
Others :				
Participated in meeting/workshop and selected for committee members of AWP				
1	Som Nath Suseli,	Ilam Municipality	Journalist	Participated in meeting and workshop
2	Kamal Mukhiya,	Maipokhari, Jaspire	Politician	Previous DDC member and Committee member of AWP
3	Ratna Adhakari, Danabari	Danabari ward 2	Politician	VDC association members Committee member of AWP

ANNEX E

Issues identified and possible remedial measures suggested by Mai AWP members

Stakeholder	Issue	Possible remedial measures	Remarks
NCDC, Ilam	Lack of funding for organizing meeting/workshop	<ul style="list-style-type: none"> • Support by the facilitating organization in the initial stage for network strengthening • Preparation of membership card and raise funds through membership fee 	Discussion with NCDC representatives
	Difficulty in registration of the Network	<ul style="list-style-type: none"> • Organize meeting with network members and review legal procedures to prepare an action plan. 	
	Lack of Communication within the network members and other stakeholders	<ul style="list-style-type: none"> • Prepare action plan for the network 	
Irrigation Users Association	Inadequate documentation for the network	<ul style="list-style-type: none"> • Establish a network room/office in NCDC 	Discussion with irrigation association chairperson and other members
	Lack of monitoring by the supporting organization	<ul style="list-style-type: none"> • Supporting organization should monitor AWP network from time to time 	
	Corruption by service provider (contractor) for the construction work of irrigation canal, e.g., all the newly constructed irrigation canals by contractors are non functional but the old ones (canal constructed by communities) are running well.	<ul style="list-style-type: none"> • Allocate responsibility to the users for government supported irrigation canal construction. 	
	Most of the water sources are supplying drinking water, which has caused conflicts with irrigation systems.	Establish the AWP network and Circular the AWP vision to the users.	
	Lack of awareness about the AWP in local users level.	Advocacy	
Dhuwa Khola Micro-hydro	Irrigation users association board is unable to coordinate adequately with the other water users	Initiate further dialogues	Discussion with users
	Lack of communication between network members	Organize periodic meeting	
	Frequent changes among government (HMG) staff (By the time they are aware of the issues, they get transferred elsewhere!). This is a major problem for Network establishment, registration & strengthening	Private sector and NGOs, CBOs, and users should be involved as the network members, and HMG staff should play advisory role in the network	

	No feeling of responsibility by some network members	Prepare programs/plans and allocate responsibility	
	Lack of fund for preliminary activities such as meeting and communication	Supporting/facilitating organization should provide fund for network establishment & strengthening.	
Krishna Subedi, Fikkal, Secretary of the committee	Difficulties in network registration	Seek alternative or an efficient way for registration	
	Too complicated for selection of members	Committee should prepare objective criteria for membership selection	
	Difficult political situation	
Yam prasad Adhikari, Namsaling Sugure Mul Khanepani, former VDC chair	No Legal authority of the network	Form another registration committee and include users and responsible persons form organizations, society etc.	
	No response by the network member, supporting organizations.	Organize meetings from time to time.	
Ram Saha Representative of Ilam Municipality and Committee member	Unstable political situation	<i>Not much can be done</i>	
	Very difficult to convince the registration authority for registration, every year 2-3 HMG staffs are transferred.	Make HMG representatives aware of the nature of the network. Select persons from the organization who are more permanent.	

ANNEX F
SOME PHOTOGRAPHS
AWP Workshop, Ilam Municipality, 23 June 2004



Workshop Banner



Introduction of Participants



Discussion among AWP Members



Closing remarks by Local Development Officer