

MRC-GTZ COOPERATION PROGRAMME

CURRENT STATUS AND IMMEDIATE DIRECTIONS FOR WATERSHED MANAGEMENT IN NAM TON RIVER BASIN, LAO PDR

Clive Lyle, November 2007

Key Recommendations

Increase Focus on Water Related Issues: All watershed plans observed (Nam Ton Baseline Study, Nam Ngum Watershed Plans, MAF and LMA land use planning studies) would be strengthened by a stronger consideration of water related issues including the environment. Government guidelines for these activities should similarly be broadened.

Watershed Governance Arrangements: A flexible approach needs to be taken to watershed committee (coordination) arrangements. This would be in keeping with international experience where arrangements have been evolutionary. For the Nam Ton watershed, Districts have each agreed to convene a sub-watershed committee. An arrangement is needed however to achieve an overall watershed perspective and sense of priorities. Several options for achieving this are considered and it is recommended that a 'Watershed Dialogue' comprising Districts, Provincial, village, and industry stakeholders would best meet the immediate needs and concerns. This should meet 2 times in 2008 and address the agenda items identified including building the understanding of watershed functions and watershed management, as well as considering future watershed governance arrangements.

Watershed Blueprint¹: It is recommended that a 'Watershed Blueprint' be prepared in 2008 to steer future District level socio-economic planning as well as relevant line agency activities. This would be an initial stage of developing what might be more broadly applied in Lao PDR. One of the most important principles in developing the Blueprint is that it should be kept simple and practical and reflect the generally low availability of resources throughout the country. Blueprint development would be supported by studies including MAF IMWU land use planning; village level rapid appraisal of land, water and environment related issues; community based land, water and environmental monitoring, and community awareness raising.

Blueprint Format and Checklist: Guidance needs to be developed on the most useful form of the Blueprint in order to assist District agencies with their work planning. The Blueprint also needs to have a whole of watershed and community engagement dimension. A checklist is required to assist agencies in including Blueprint actions in their work plans as well as to assist monitoring of Blueprint implementation.

GTZ-MRC/Watershed committee and KfW project links: Some confusion was expressed on the relationship between the GTZ-MRC project and the future KfW project. It is important for the GTZ-MRC project and the outcomes achieved by the KfW project, that the two are closely linked to the extent that the watershed Dialogue evolves into a committee advising on the planning and use of those funds from a watershed priorities perspective.

¹ The term 'Watershed Blueprint' is used here to describe what would often be called a 'Watershed Action Plan' in Western countries. The term 'Blueprint' was chosen to differentiate and avoid confusion with the strong and formalized socio-economic plans that are prepared annually at all levels of government in the Lao PDR. The term 'Blueprint' has come to mean a guide or model for making something rather than a hard and inflexible plan that is meticulously followed. Thus, in relation to watershed management in Lao PDR it provides guidance for the annual socio-economic plan preparation according to overall District and Provincial priorities. The appropriateness of this term for use in Lao PDR should be considered further through the Watershed Dialogue process.

1. INTRODUCTION

The MRC-GTZ Cooperation Programme Watershed Management Project focuses on the management, policy, capacity building and information management aspects of watershed management. The project has elements in each of the 4 MRC countries. In the Lao PDR, this includes the Nam Ton Watershed as a pilot watershed following its selection by a National Working Group on Watershed Management of the Mekong River Commission in 2004. The current MRC-GTZ project finishes at the end of 2008 and there is the prospect of a follow-up project.

A KfW investment project 'Nam Ton Sustainable Watershed Management Project', has been recently designed for the Nam Ton Watershed. While the GTZ project focuses on the software of watershed management including management and capacity building aspects, the KfW activities are directed at complementary 'hardware' investments. The KfW project is expected to commence implementation in 2009 following its passage through the project approval process.

This report was undertaken principally to investigate institutional issues and progress for managing the Nam Ton watershed and to identify short term needs and options.

2. RIVER BASIN AND WATERSHED MANAGEMENT

The watershed is the fundamental unit for water resources management and is all of the land from which runoff flows to a single river, lake or ocean. The watershed boundary defines the extent of the surface and usually the groundwater resources that are available for development. The watershed boundary also neatly defines the boundaries of competition and conflicts between different communities, sectors, environment and, upstream and downstream users.

The terminology used in watershed management however requires some further clarification for practical purposes as scale is an important issue in determining the level of management, study and interventions that are practical. The term watershed includes river basins, sub-basins, watersheds, catchments of all sizes. In practice however, watershed management has become synonymous with the smaller scale sub-river basin or catchment where land and water resources are managed by local communities and on-ground implementation and community activity predominates rather than policy and strategic level planning. Thus the following definitions are commonly used:

A River Basin is a 'watershed' which has an outlet to the ocean, a terminal lake system or crosses an international boundary. From the Lao PDR perspective, there are 12 (national) river basins (watersheds) which are greater than 4,500 km² in size. Eleven of these are tributaries of the Mekong River.

A Watershed is the next level of sub-division where the 'river basin' is subdivided into a subset of sub-river basins which are usually second or third level tributaries of the main river. In some countries these are called catchments. These 'natural' boundaries may be adjusted if there are important water regulating structures. In some cases watershed boundaries may be adjusted for management or administrative convenience although this is not recommended from a water resources management perspective. For example, the Nam Ngum River Basin Plan is based around 15 such watersheds.

A comparison of some of the characteristics of river basin management compared to watershed management is shown in Figure 1.

Figure 1: Comparison of Some Characteristics of River Basin and Watershed Management

River Basin Level	Watershed Level
Formal or semi-formal institutional management structures which is especially important where governments are independently responsible for water resources management	Flexible institutional management structures according to local needs and conditions
Consult with government sectors and major industry stakeholders about inter-sectoral issues	Consult and involve local government and non government stakeholders in watershed management
River basin profile	Watershed inventory
Investigates water resource development scenarios- ie. long term opportunities and threats	Focus on short to medium term management of current land and water uses
Significant modelling and information management activities	Limited modelling and information management activities
River Basin Strategies	Watershed Blueprint
- Sustainable water resources management	- Protection of watershed values and improving rural livelihoods
- Water sharing between provinces/sectors (Bulk Water Entitlements)	- Identifies hotspot areas for priority actions and consistent with targets set at a river basin level where available
- Setting of river basin level targets (eg. end of valley targets for key basin needs such as flow, water quality)	- Blueprint includes actions which will meet and comply with end of valley targets
- Prepares guidelines for management of water related resources	- Prepares guidelines for management of specific local, water related, features
- Coordinates national and provincial line agencies	- Coordinates local line agency actions
- Focus on major water resource impacting stakeholders	- Promotes local leadership and actions by communities
Line agencies develop their plans consistent with RB plan	Line agencies develop their plans consistent with Blueprint
Line agencies report to River Basin Organisation on activities conducted relevant to RB plan	Checklist approach to ensuring Blueprint activities included in annual plans
Complex and formal resource monitoring networks	Limited formal monitoring networks. important community monitoring programs
Education and awareness raising focussed on peak government and industry	Education, awareness raising and participation focussed on local communities

The Nam Ton- River Basin or Watershed

The Nam Ton and many other ‘watersheds’ in Lao are small and as they are tributaries of the Mekong or flow into a neighbouring country they could be classified as River Basins using the above definitions. However due to their size they are similar to watersheds in terms of the level of resources that can support the planning.

In the short term, action in these types of watersheds is likely to occur in only a few high priority cases in response to urgent needs and/or donor support. In such instances, watershed committee management arrangements could be arranged on a case by case basis. In the longer term, it may be decided to extend the approach nationally following experiences with pilot studies in a few watersheds or following a decision to have nation-wide coverage of river basin organisations and management. In this event, it will be necessary to consider as a matter of policy, the streamlining of the river basin-watershed management

arrangements and the numbers of river basin-watersheds to reduce coordination and technical support needs and improve efficiencies.

Elsewhere (in some other countries) this is achieved by forming a 'river basin organisation' which is responsible for a collection of small river basins; for example a Northern Lao Mekong tributary river basin organisation could be responsible for the management of all small river basins in northern Lao (eg. north from Vientiane Province) that are tributaries of the Mekong River. Alternatively small river basins with the same member Provinces could be grouped into one management organisation. Such decisions should follow analysis of the issues involved including numbers of such river basin/watersheds, the significance of the water resource management issues and the resourcing implications.

Administrative Boundaries and Watershed Functions

Often river basins and watersheds are managed by different governments. This complicates the management of watersheds as not only are there cross sectoral issues that must be managed but these also need to be managed consistently by the different constituent governments. This requires additional coordination and cooperation between governments which becomes an additional burden on existing administrations especially where resources are limited.

Discussions clearly highlighted a concern that setting up an overall watershed institution would result in a burden and demands on limited resources which would be greater than the benefits to be achieved. An acknowledged limited appreciation of what watershed functions are in practical terms may have contributed to this view.

For this reason, a step by step approach is best taken. This would include a critical analysis and discussion of the relative importance of the watershed outcomes to be achieved and how much value is added by taking a watershed and watershed institutional approach compared to using existing administrative structures alone. **Error! Reference source not found.** provides an example assessment of the value of taking a watershed based approach compared to taking an administrative unit approach.

3. PROGRESS WITH THE ESTABLISHMENT A NAM TON WATERSHED COMMITTEE

Discussions were held with a large number of staff from agencies at National, Vientiane Municipality and Vientiane Provincial and Hinheup and Sangthong District levels (Attachment 1).

Key Points:

- The key role of Districts and village clusters in the watershed management institutional arrangements was widely agreed.
- There were conflicting views as to the importance of direct Provincial involvement
- Lack of a specific mandate for the WSC was seen as a major barrier to discussions and consideration of establishing a watershed committee
- Most jurisdictions saw a role for an overall watershed role committee although the importance and form of this varied and there were concerns with the time and resources required especially given the distances involved, limited staff and budget resources and the number of committees that are already active.
- Vientiane Province was especially of the view that with implementation of the decentralisation policy (decree 01), there would be limited resources at the Provincial level to participate in a whole of watershed committee.
- The resources required for a whole of watershed committee should reflect issues and urgency with most seeing more informal arrangements as being preferable at least initially.
- There may be some issues of terminology that may complicate discussions unnecessarily. For example, the term 'committee' may add some higher level of status and formality than would necessarily be the case in Western countries. It is also unclear whether some see in the term 'institution' and the attributes of an 'organisation' (staff, infrastructure) with a watershed committee which results in a cautious response. This terminology should be reconfirmed as appropriate and understood.
- Clarification of the relationship between the GTZ and KfW projects is needed. There should be a close link whereby the KfW hardware project is seen to respond to the GTZ- software/management project.

1. There was overall agreement with taking part in the watershed approach. The main purpose seen for taking a watershed approach at this stage was land use zoning in relation to forest loss and degradation. Other concerns included seasonal water shortages not previously experienced, farming along rivers causing downstream reuse problems, flash flooding, and poor fishing because of less water. There was also a concern with inconsistent approaches / standards being taken in land management practices (eg. mining, NTP harvesting, livestock grazing, vegetation regeneration) particularly near/across District boundaries which are often not well defined or disputed.
2. All agreed that Districts were the key administrative level for implementing watershed management. Each District had agreed to set up its own (sub) watershed management committee.
3. Districts did not see a need for direct involvement of higher administrative levels other than in the establishment of the mandate and guidelines (in the longer term). Provinces and central agencies saw the need for their input although the approach suggested varied. The need for higher level of Provincial input was based on capacity needs at the District level as well as harmonising provincial strategies, plans and approaches. Flexibility was seen as important especially in the formative stages when then mandate and roles are being established.
4. Whilst most could see a need for an overall watershed committee, there was concern especially at the District level with the resources, time, costs, travel costs and time implications. It was widely agreed that a WSC should be needs driven but it was not clear that this was the case now or that the added value would be significantly greater than the added costs. It was stated that if there were problems it was much easier to make a telephone call to talk to the neighbouring District. The need for an overall watershed committee were reflected on in terms of "In theory,", and "At present, watershed level and upstream-downstream conflict is not strong in Lao."

5. Vientiane Province considered that with the implementation of the decentralisation decree there will be limited resources at a Provincial level to interact with a watershed committee. This could be assisted by locating a coordinator in each Province.
6. Most discussions noted the need for the specific mandate and role for the Watershed Committee (or sub-committee) so that the institutional arrangements and level of involvement of relevant agencies could be more conclusively addressed.
7. The village cluster (Kum Ban) was seen as the key to involvement of villages with the (sub) watershed management committee.
 - Sangthong District has about 22 villages organised as 6 Kum Ban in the WS
 - Hinheup District has about 9 villages organised as 3 Kum Ban in the WS

The Kum Ban system was at least partly developed so that villages could be efficiently involved in government programs with the limited number of extension officer resources. There is one extension officer allocated to each Kum Ban. This is similar to the approach which has found to be effective internationally where an extension officer is allocated to a Landcare groups (similar to village cluster groups and which address natural resource management issues.

8. Convening a watershed committee was considered to be straight-forward if the participating governments were supportive and it was an informal approach. Where formal arrangements were needed of governments were not supportive, an instruction would be required from the next higher level of administration to form such a committee. If both Districts came from one Province this could be issued by the Provincial government. However as there are also 2 Provinces involved the instruction should be issued by the National level. As such a committee would comprise several Ministries, the instruction should be issued by the central office such as the governor's office or the Prime Ministers Office (eg. WREA).
9. There was confusion about the relationship between the MRC-GTZ 'Watershed Management Project' and impending KfW 'Nam Ton Sustainable Watershed Management Project'. The linkages between these two projects need to be established and communicated. Logically the investment from KfW should follow the content and priorities of an overall plan for the Nam Ton Watershed developed by the MRC-GTZ project with its focus on management. There would be important benefits from integrating the two projects in order to avoid:
 - Duplicating or conflicting management structures.
 - The growing number of coordinating groups.
 - The focus and effort of local agencies and communities moving away from the management and policy (GTZ) aspects to the investment (KfW) part of the activities.
10. A future issue which was often raised was which agency will be the lead agency for river basin and sub-basin / watershed management at national and local levels. In the longer term, WREA was expected to play the lead policy, planning and coordination role for river basin management. The situation for sub-basin (watershed) management is not as clear as there is a need for integration of land and water management and there are several departments and authorities with this interest. There is also the need to have a staff presence at the District levels. The discussions suggested that WREA is likely to take a key role nationally but this may be shared with the Land Management Authority and assisted by MAF (agriculture, forestry, fisheries) especially as MAF has considerable experience with land use planning and rural development as well as an extensive decentralised presence.

4. TYPICAL ARRANGEMENTS FOR WATERSHED MANAGEMENT

The following section describes a common approach used in other countries for watershed management so that possible approaches for watershed management in the pilot watershed can be more clearly discussed.

Purpose of Watershed Management:

Watershed management typically has two main purposes:

1. To sustain and where possible improve watershed functions.
2. To equitably and sustainably share the watershed's natural resources between users as well as with the environment.

Watershed functions relate to the services that are derived from a watershed when it is in 'good' condition. Dimensions of these services are shown in Figure 1 but basically relate to the use and condition of land, water (surface and groundwater), vegetation and biodiversity in the watershed.

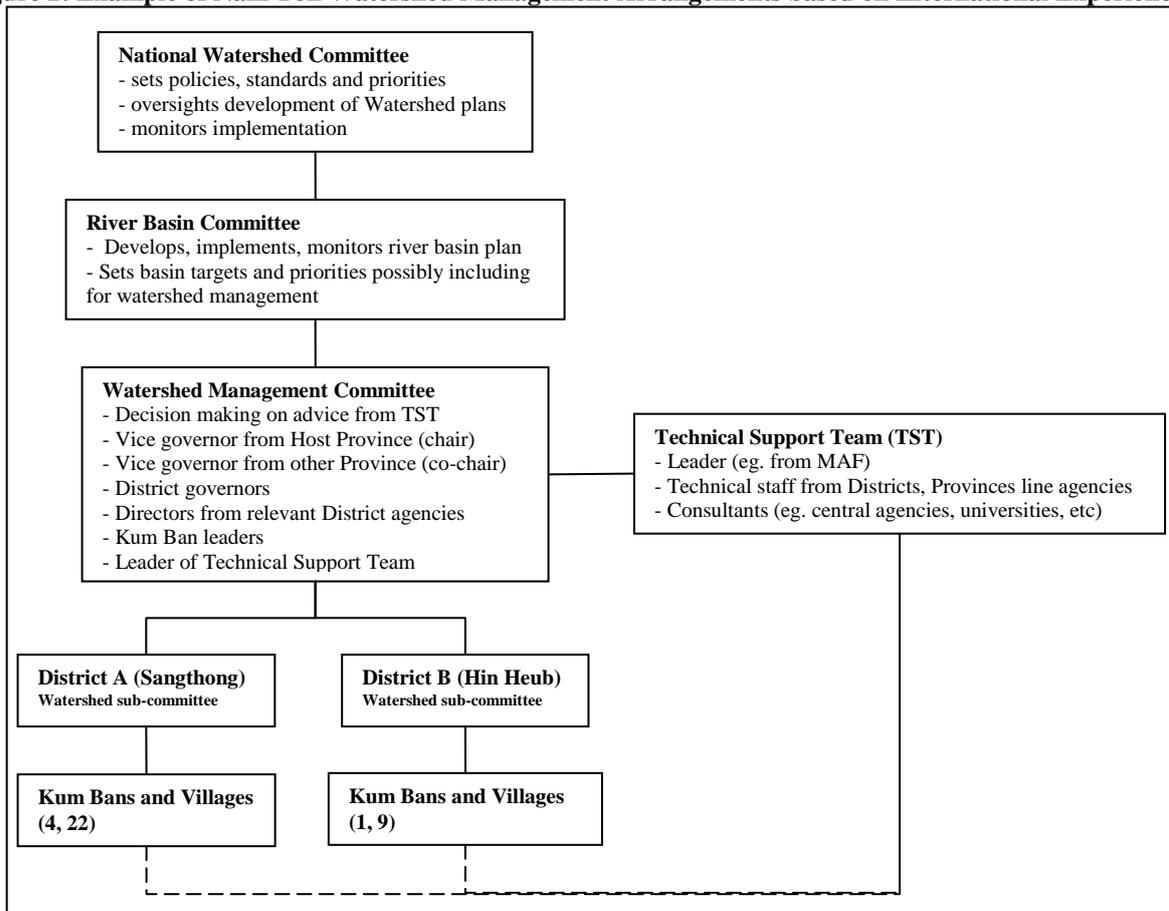
Institutional Arrangements

Institutional arrangements for Watershed Management are flexible and depend upon the particular circumstances in the country and the watershed under consideration. In countries where there is an established approach to river basin and watershed management, there are some typical features that are present. These are illustrated in the Figure 2 and comprise:

- A National Coordination Committee: Coordination at the national level is important so that the activities of the agencies involved with watershed management (eg. water, land management, agriculture, forests, fisheries, and environment) are coordinated. It also enables the setting of consistent national policies, approaches, guidelines, standards and priorities from the national perspective.
- A River Basin Committee: There may be an overall River Basin institution in some river basins. The River Basin Committee will set policies, strategies, approaches, guidelines, standards and priorities from the river basin perspective and consistent with national policies. This committee would oversee development and implementation of a River Basin Plan that deals with the larger and more strategic development and conservation issues at a river basin level such as water sharing between sectors (hydropower, irrigation, fisheries, the environment, etc), managing water quality, and coping with drought and floods. The River Basin Plan will often set flow and water quality targets in certain parts of the river basin and may identify priority watersheds (sub-basins) for attention.
- Watershed Management Committee: Involves and assists in coordinating the activities of member governments, departments, and the community who are working in the watershed. The watershed committee will also deal with the setting of policies, approaches, guidelines, standards and priorities from the watershed perspective and consistent with national and river basin policies.
- A Technical Support Team (TST): Coordinates and supports development and implementation of a watershed action plan by planning and coordinating the studies and investigations that need to be undertaken. The effectiveness of this support has been shown to be one of the most important factors contributing to an effective watershed committee and watershed management. Members of this team are drawn from local agencies and strengthened by specialists brought in specifically for the watershed planning phase.
- Community Participation: Direct involvement of the watershed community at a village level or similar farmer level depending upon the country situation

It is important to note that in many countries this fairly formal model has evolved after initially working with less formal arrangements. Additionally such arrangements are often not present in every watershed but only in those where issues were urgent and of a national, river basin or local priority.

Figure 2: Example of Nam Ton Watershed Management Arrangements based on International Experience



Responsibility of a Watershed Management Committee

Typically a Watershed Management Committee will be responsible for:

- Investigating and reporting on watershed conditions and issues and preparing an action plan (Blueprint) which recommends priority broad activities (eg. reforestation in a priority part of the watershed) for agencies to implement as part of their work programs.
- Advising governments on the management needs and priorities with the watershed.
- Monitoring progress with the watershed plan and watershed conditions.
- Engaging the watershed community through discussion groups, surveys and awareness raising activities

It is important to note that the Watershed Committee does not undertake work itself (it has no staff). Agencies remain responsible for conducting work within the watershed and responding to the priorities of the watershed action plan.

Tasks Conducted by the Watershed Committee

The tasks conducted by a watershed committee and its supporting interagency, Technical Support team will vary greatly depending upon the urgency of watershed issues, the resources available and the priority given to watershed management by governments.

Tasks of a Watershed Committee will include working closely with the watershed community and other stakeholders to undertake at least some of the following:

1. Undertake basic investigations, inventory and assessment of all aspects of watershed functions, usage and services.
2. Identify the main areas of existing and emerging impacts on watershed functions, and of likely development trends in the future.
3. Developing strategies and priorities that could be adopted to manage adverse impacts in the watershed but also to promote sustainable development.
4. Facilitate the integration of watershed management issues, perspectives and priorities into the commune, district and provincial development and resource protection plans.
5. Submit recommendations and proposals to the province and district governments and the village levels in the watershed on watershed management issues, measures and priorities.
6. Comment on proposals for land and water resources development within the watershed in regard to compliance with any watershed management priorities or procedures that may exist.
7. Coordinate with relevant district agencies in the implementation and monitoring of any watershed management priorities.
8. Facilitate negotiation and mediation between different stakeholder interests, and provide recommendations for actions to solve on-going conflicts relating to watershed management.
9. Attend and support capacity building events and on-site inspections on sustainable watershed and natural resource management.
10. Disseminate knowledge, information, best practices and experiences of watershed management, natural resource management and environmental conservation to communities living in the watershed.
11. Submit annual reports on the Committee's activities to the province and district administrations and any other reports required by national watershed policies and guidelines.

5. OPTIONS FOR NAM TON WATERSHED MANAGEMENT ARRANGEMENTS

There are many options for management arrangements in the different watersheds of Lao PDR. The model chosen will reflect local and national priorities, urgency of issues, availability of resources, whether the watershed is within one or several Provinces, etc.

Consultations with relevant governments indicated a preference, by Districts in particular, for not adopting a formal watershed committee structure. The reasons for this included the time and cost of such coordination arrangements, limited resources, a feeling that similar ends could be achieved by Districts acting independently and a wish to keep the number of committees down.

One of the key tasks of any watershed governance arrangement is to prepare a strategic level watershed action plan which manages any adverse conditions or impacts on the watershed as well as to promote sustainable development. This is referred to as a watershed 'Blueprint' in this report in order to indicate that the 'Blueprint' is not an official plan directive but rather provides advice on watershed priorities for District and Provincial agencies to consider in preparing their official annual socio-economic plans.

The 3 main options for achieving coordination between districts in the Nam Ton watershed include the following:

Option 1: District Watershed sub-Committees Operating Independently

Features:

- Each district has a 'Watershed Management (sub) Committee' overseeing management of its part of the watershed
- There is no or little coordination or sharing of information between Districts
- Planning for watershed management is done independently in each District
- Any inter-district issues would be addressed on a needs basis via informal contact

Strengths

- Simple
- Few resources needed for coordination
- Easy to manage and incorporate into District Plans

Weaknesses

- No coordination means District watershed 'Blueprints' are likely to be inconsistent and with differing standards
- Standalone district 'Blueprints' will be unable to identify and address the key watershed issues from a whole of watershed perspective
- Lack of inclusion of water related issues into 'Blueprints' may remain a weakness
- Discussions in the Districts identified a number of upstream-downstream issues that would benefit from a watershed 'Blueprint' and dialogue
- This approach is the traditional administrative planning approach. A pilot project could trial novel and alternative approaches; this should include options for having districts working more closely together to achieve overall watershed outcomes and a focus on water issues
- District and Provincial socio-economic plans will not be harmonised.

Comment

This option is not recommended.

Option 2: Inter-Provincial Watershed Steering Committee

Features:

- There would be an overall and more formal Watershed Committee similar to that shown in Figure 2 and being implemented in the Vietnam and Cambodian components of the GTZ project. This would meet 3-4 times per year to consider watershed issues, and the development and implementation of the Watershed 'Blueprint'. An alternative would be to meet less frequently but to appoint sub-committees to meet more frequently to address specific tasks such as development or monitoring implementation of the 'Blueprint'.
- Any inter-district issues and conflicts would be addressed by the Watershed Committee.
- A Technical Support team (eg. led by MAF) would develop an overall watershed 'Blueprint'. It would be agreed by the Watershed Committee and Districts and Provinces and then implemented by Districts through their normal socio-economic planning process.
- Each district would have a 'Watershed Management (sub) Committee' overseeing management of its part of the watershed

Strengths

- Strong involvement of key stakeholders in overseeing development of the 'Blueprint' and overall watershed management. This should lead to a better understanding of watershed issues, needs and management.
- Direct involvement of leaders will raise understanding and the priority given to watershed issues.
- An overall watershed 'Blueprint' and agreement by Districts and Provinces will strengthen the priority given to achieving 'Blueprint' outcomes and inclusion in socio-economic planning.
- Development of one overall watershed blueprint means there will be a whole of watershed perspective and consistency in activities undertaken at a District and Provincial levels.
- Novel aspects of watershed management can be included through blueprint development- for example water issues, direct participation of villagers

Weaknesses

- The activities of the Watershed Committee will be relatively time and resources consuming and will require some secretariat support.
- If WSC members do not see practical benefit from their involvement, future interest in watershed management issues could be lost at all levels
- This model does not respond to the feedback from consultations. It is important that key stakeholders have an influence on the level of coordination needed.

Comment

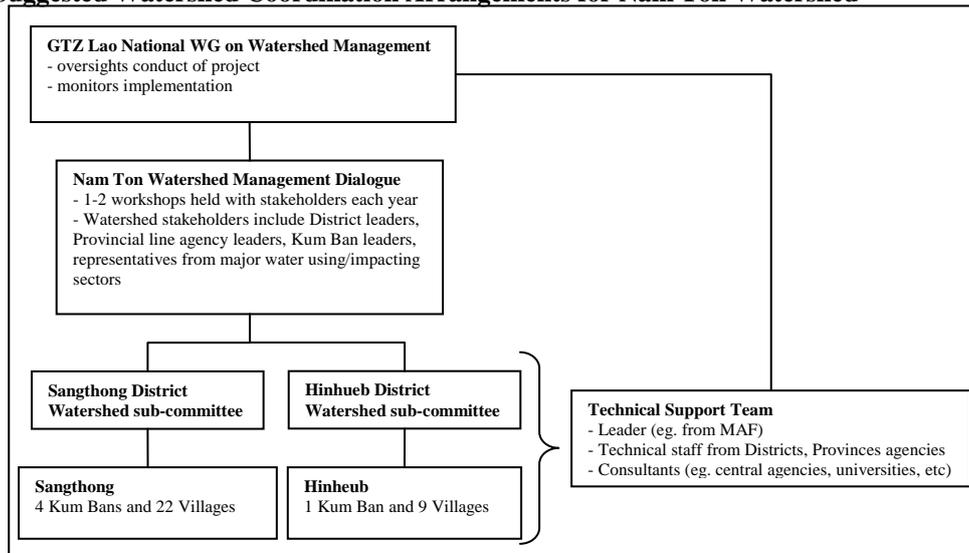
This option is not recommended.

Option 3: Coordination of Semi- Independent District Watershed sub-Committees

Features:

- Each district would have a 'Watershed Management (sub) Committee' overseeing management of its part of the watershed
- Whole of watershed coordination of District activities and a watershed perspective would be achieved through a Watershed Management Dialogue:
 - Stakeholder workshops including District and Provincial leaders would be held 1-2 times per year to discuss issues, blueprint development and implementation, watershed committee arrangements.
 - An overall watershed 'Blueprint' would be prepared by a Technical Support team (eg. led by MAF). The 'Blueprint' would be agreed by Districts and Provinces and then implemented by Districts.
- Any urgent inter-district issues would be addressed on a needs basis via informal contact

Figure 3: Suggested Watershed Coordination Arrangements for Nam Ton Watershed



Strengths

- Simple, and caters for the further evolutionary development of the watershed management model
- Few resources needed for coordination
- Development of one overall watershed blueprint achieved via the Technical Support Team means there will be consistency in District plans
- Novel aspects of watershed management can be included through blueprint development- for example water issues, direct participation of villagers
- Easy to manage and incorporate Blueprint into District Plans
- Incorporates many of the features provided during feedback

Weaknesses

- Lack of formal arrangements means resolution of any difficult issues / conflicts would be unlikely. However, if this became an issue, formal arrangements could be instigated or Provinces/national level could intervene.
- Possible weak ownership of watershed 'Blueprint' by stakeholders

Comment

This option is recommended. Subsequent sections of this report are based on this model.

6. RESPONSIBILITIES OF WATERSHED COORDINATION COMMITTEES

There are 2 levels of activity and coordination proposed in option 3 for 2007-08 in the Nam Ton watershed. One is at the overall watershed level and the other is at the District level where watershed sub-committees are established. Arrangements for after 2008 would be reviewed at the completion of the current project.

(a) Nam Ton Watershed Dialogue

A watershed dialogue involving stakeholders is proposed to provide an essential oversight and perspective at the whole of watershed level. This would take place early in 2008 at the commencement of this next phase (around February 2008) and the other at the completion of the project (around November 2008) (refer to the 2008 workplan described in section 8).

In the short term (2008), suggested tasks for the Nam Ton Watershed Dialogue are:

Figure 4: Watershed Dialogue Tasks

Watershed Dialogue Tasks	Comment
Oversight and comment on watershed issues and updating of the watershed baseline study including stakeholder involvement	A consultative process should be held to discover and prioritise relevant issues for consideration by the 'Blueprint'. The 2004 Watershed Baseline Study should be reviewed and updated by the Technical Support team
Advise on the Nam Ton 'Blueprint', including, <ul style="list-style-type: none"> - Content of the 'Blueprint' - Harmonisation of land and water use classification standards between Districts - Harmonisation needs and approaches included in Blueprint and more generally (eg. management standards for sectors such as mining, non timber products harvesting) - Needs to develop consistent approaches especially in District border areas (eg. definition of border location) - Inclusion of relevant Blueprint aspects into the official annual socio-economic plan - Other issues to arise from discussions 	Technical development work to be conducted by a Technical Support team drawn from relevant national, provincial, district agencies and consultants according to capacity There was an indication that land use classification standards varied between Districts/ Provinces as well as agencies. A 'Blueprint' requires consistent or at least harmonised standards which can be applied across the whole watershed. There was an indication of inconsistency in approaches across District boundaries leading to resource allocation and management difficulties
Oversight and advice on the allocation of project implementation (including KfW) funds.	Advice should be given on the priorities for investment using a transparent approach based on overall watershed wide priorities
Monitoring and evaluation of plan development and implementation	Progress with implementing 'Blueprint' development and then implementation should be monitored according to schedule and plan targets
Future Watershed governance arrangements	Future arrangements would be discussed at the final Dialogue meeting

(b) District Watershed sub-Committees

Each District has established a committee responsible for its part of the Nam Ton watershed. In an established watershed governance structures each committee would effectively be acting as a sub-committee of an overall watershed committee. This is consistent with how watershed plans are developed and implemented internationally where often there are sub-committees for upstream and downstream areas.

Membership of the (sub) watershed management committee was indicated as:

Committee - Sangthong District, Vientiane Municipality:

- Vice Governor
- Chief of DAFO
- Deputy Chief of District Cabinet
- District Planning Office
- Technical Staff from Irrigation Unit, DAFO
- Technical Staff from Forestry Unit, DAFO
- 17 Village Heads along Nam Ton River

Committee – Hinheub District, Vietiane Province:

- Governor
- Chief of DAFO
- District Planning Office
- Technical Staff from Forestry Unit, DAFO
- Technical Staff from Livestock Unit, DAFO
- Technical Staff from Agriculture Unit, DAFO
- Technical Staff from Irrigation Unit, DAFO
- Heads of Village Clusters / Khum Ban

It is suggested that the committees be strengthened with the addition of technical staff with responsibility/perspective on water resource related issues (eg. water quality/Irrigation unit, fisheries, or other alternative). The suggested tasks for these sub-committees are:

Figure 5: District Watershed sub-Committee Tasks

District Watershed Sub-Committee Tasks	Comment
Oversight and comment on watershed issues and assist the updating of the watershed baseline study	The technical team revising the Baseline study will rely on the District to provide information and support.
Assist the Technical Support team in the development of the 'Blueprint'	The technical team will work closely with each District and its sub-committee
Advise on the content of Nam Ton 'Blueprint' prior to its finalisation. Advise the District governor on the endorsement of the 'Blueprint'	Technical plan development work to be conducted by a Technical Support team drawn from relevant national, provincial, district agencies and consultants according to capacity
Ensure inclusion of relevant Blueprint aspects into the official annual District socio-economic plan	Relevant aspects should be included each Districts annual socio-economic plan
Oversight and advice on the allocation of project implementation (including KfW) funds.	Advice should be given on the priorities for investment using a transparent approach based on overall watershed wide priorities
Monitoring and evaluation of plan development and implementation	Progress with implementing 'Blueprint' development and then implementation should be monitored according to schedule and plan targets

7. STAKEHOLDERS IN WATERSHED MANAGEMENT

There are a large number of stakeholders in watershed management and the most important of these should be engaged during this process. Figure 6 shows the stakeholders with a fairly direct interest in watershed management in Lao PDR and assists identifying the most important stakeholders so that they are involved in the project. The stakeholders that should be engaged will vary from watershed to watershed depending upon the local issues. The core group of government agencies with direct responsibilities for the practical management of watershed resources include the following:

Figure 6: Key Stakeholders in Watershed Management in Lao PDR

Core Government Group	Significant Activities in Relation to Watershed Management
All Levels of Government	
Central District Government (Governor and central offices of Cabinet and MPI)	<ul style="list-style-type: none"> • Sets district policies and plans for resource use in Districts • Prepares annual plans for government investment in natural resource management • Allocates concessions for resource use • Enforces laws, regulations and policies regarding resource use
Ministry of Agriculture and Forestry	
Agriculture Planning Department (Integrated Watershed Management Unit) (National)	<ul style="list-style-type: none"> • Assists in watershed management and rural development planning on a sub-watershed area basis • Supports provinces and districts with data analysis and generation of map for district level integrated watershed planning
Irrigation Department (all levels)	<ul style="list-style-type: none"> • Plans and implements policies, strategies and projects for the development and management of irrigation, drainage and rural flood control at a national, provincial and district levels • Water quality monitoring
Forestry Department (all levels)	<ul style="list-style-type: none"> • Plans and implements policies, strategies and projects for the development and management of forestry at a national, provincial and district levels • Undertakes land use planning and allocation in relation to forestry use
Department of Livestock and Fisheries (all levels)	Determines policies, plans, laws and regulations for of the Government and MAF for fisheries development at a national, provincial and district levels
NAFRI	Research into agriculture and forestry
NAFES	Extension services for agriculture and forestry.

Ministry of Public Works and Transport	
Department Bridges and Roads, Waterways Administration Division (all levels)	<ul style="list-style-type: none"> Along the Mekong River and its main tributaries; Collects hydrography, hydrology and construction activity data and information. Plans and manages water way related activities, river transport related environment, such as dredging and navigation aids, river ports, bank protections, and sand and gravel extractions
Water Supply Authority	<ul style="list-style-type: none"> Provision of water supply and sanitation services
Ministry of Health	
Department of Sanitation and Preventive Medicine, National Center for Environmental Health and Water Supply (all levels)	<ul style="list-style-type: none"> Assists with the control and management of environmental health related issues in both rural and urban areas, and rural water supply in country wide Management of groundwater for rural water supply Water quality monitoring for drinking water
Land Management Authority	
(all levels)	<ul style="list-style-type: none"> Land use planning, zoning and allocation to government authorities Bio-diversity management Land titling Management of government owned lands
Water Resources and Environment Administration	
	<ul style="list-style-type: none">
(Water- national Environment- all levels)	<ul style="list-style-type: none"> Advises Government and implements government policies, strategies, laws, regulations related to water resources, environment, hydrology and meteorology. Promotes and undertakes integrated water resources management including river basin and watershed management Reviews Environmental Impact Assessment, Social Impact Assessments, resettlement proposals, Cumulative Impact Assessments and environmental management plans of major projects Monitoring of water quality
Department of Meteorology and Hydrology (National)	<ul style="list-style-type: none"> Collecting, processing, storing and dissemination of hydrological and meteorological data and information in Lao P.D.R
Department of Electricity, Social and Environmental Management Division (all levels)	<ul style="list-style-type: none"> Advises on policies, plans, laws and regulations for developing and controlling the production (including hydropower) and distribution of electricity. Reviews and evaluates power project proposals, contracts and agreements.
National University of Lao	
	<ul style="list-style-type: none"> Manages a Training Centre and forestry faculty site in Nam Ton watershed Trains and undertakes consultancy services in watershed related areas
Private Sector Stakeholders	
Farmers (irrigated agriculture, fishers, rainfed agriculture, forestry etc)	Villagers are dependant on sustainable access to natural resources (water and land) for food supply and livelihood reasons. In addition, land and water has value to these communities' for recreational purposes. The more intensive forms of land and water use can reduce the access to these resources by others due to excessive water consumption or water pollution. The activities of villagers can also intrude into and reduce the value of natural forest areas.
Forestry concession holders	Management of forest land can affect runoff (timing and amount) as well as quality of water (sediment), land quality (erosion), river health (sediment, streamside buffers). Forestry can intrude into and reduce the value of natural forest areas.
Mining companies exploration and operators	Mining requires a reliable supply of water. It is also a significant risk to water quality and ecosystems from accidental releases of chemicals or from sand and gravel mining in river beds.
Tourism Operators	Ecotourism is often based around water dependent features. Tourism requires good water supply and sanitation
Urban and Village Areas	Urban water users need a reliable source of good quality water for drinking and domestic purposes. Urban concentrations produce high levels of waste which might pollute surface and groundwater

Based on this listing, stakeholders that should be considered for direct involvement through the Watershed Management Dialogue and/or Technical Support team (studies or consultation) are shown in Figure 7.

Figure 7: Suggested Stakeholders for involvement in the Watershed Coordination Arrangements

Stakeholder	Dialogue Workshops	Technical Planning
Central District government	✓	
Agric. Planning (central)	✓	✓
NAFES Irrigation (Provincial, District)	✓	✓
NAFES Forestry (P, D)	✓	✓
NAFES Fisheries (P, D)	✓	✓
Waterways Admin (P, D)	✓	✓
Environ. health and water supply (P, D)	✓	
Land Management Authority (P, D)	✓	✓
WREA (central)	✓	✓
National University of Lao	✓	✓
Village leaders	✓	
Farmer water users	✓	
Forestry Concession	✓	
Mining company	✓	

8. IMMEDIATE CAPACITY BUILDING NEEDS FOR THE NAM TON WATERSHED COMMITTEE

The immediate needs throughout 2008 for capacity building for the Nam Ton watershed are shown in Figure 8. The tasks identified are as follow:

Preparatory Studies

1. Prepare situational analysis on watershed conditions for Inception workshop:

Purpose:

- i) To provide focussed discussion points (ppt presentation) for the inception workshop on maintenance of watershed functions and possible related conflicts/impacts (eg. upstream-downstream) specific to the Nam Ton watershed
- ii) To build the case for the development of a Watershed Blueprint

Implementation: Lao GTZ office or international consultant draws succinct and specific information from baseline study, KfW scoping study and other sources (eg. MRCS BDP work).

Time requirement: Consultant input, 5 days

Dialogue Workshop of District Watershed Sub-Committees

2. Discuss watershed functions and watershed issues in watershed:

Purpose:

- i) To build understanding amongst participants of important watershed issues in the Nam Ton watershed.
- ii) To identify any additional important watershed issues in the Nam Ton.
- iii) To understand the level of importance placed on Nam Ton watershed issues by stakeholders.

Implementation: Session held at Dialogue workshop.

Workshop Participants: District sub-committee members, provincial line agencies (Agriculture, Forest, Land, Fisheries), national line agencies (WREA, Land, Agriculture, Forest). Specific participants are to be developed by the country office.

Figure 8: Nam Ton Capacity Building Workplan

	Task	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Responsibility
	Preparatory Studies														
1	- Prepare situational analysis on watershed conditions for Inception workshop	■	■	■											GTZ, IC
	Inception meeting/workshop of District WS sub-committees														
2	- Discuss watershed functions and watershed issues in area				■										GTZ, IC, Districts
3	- Discuss WS sub-committee and WS Reference group mandates				■										GTZ, Districts
4	- Discuss workplan				■										GTZ, Districts
	Undertake Studies and Investigations														
5	- Produce land use zoning map for whole watershed				■	■									GTZ, IMWU, Districts
6	- Village interviews and mapping of water and land uses and issues, and environmental features					■	■	■	■						GTZ, IC, LC, Districts
7	- Develop and undertake community based land, water and environment monitoring and awareness raising					■	■	■	■	■					GTZ, IC, Districts
8	- Update Nam Ton Baseline Study										■	■			GTZ, IC, local consultants
9	- Produce Watershed Management Blueprint												■	■	GTZ, IC
9a	- Produce Blueprint TOC / scope of report / what is in blueprint		■												
10	- Draft of initial watershed safeguards checklist for sectoral plan development											■	■	■	GTZ, IC
	Annual Nam Ton Watershed Dialogue														GTZ, Districts, Provinces, National level, industry stakeholders
11	- stakeholder consultations													■	
12	- presentation on Watershed Management Blueprint													■	
13	- community awareness raising activities													■	
14	- discussions on watershed governance arrangements													■	
15	- next phase of project													■	

3. Discuss WS sub-committee and WS Reference group mandates:

Purpose: Workshop to discuss and advise on the responsibilities for the Nam Ton Watershed Dialogue and the (District) sub-committees and reference group

Implementation: Discussion at workshop of draft responsibilities presented earlier in this report (figures 4 and 5).

4. Discuss workplan:

Purpose:

- Inform participants of MRC-GTZ project in Nam Ton watershed.
- Workshop to discuss and advise on the workplan for developing the watershed blue print

Implementation: Discussion at workshop.

Undertake Studies and Investigations

5. Produce land use zoning map for whole watershed:

Purpose:

To provide the base map of land use zones and to assist identification of watershed hotspot areas.

Implementation

MAF IWMU be contracted to produce land use zoning map (and GIS) for the Nam Ton watershed using their established methodology involving each District's staff. 1-2 satellite images required to assist historical land use and mapping work.

6. Village interviews and mapping of water and land uses and issues, and environmental features:

Purpose:

- i) To identify water, land and related environmental issues and especially those with an upstream element, in the watershed through direct discussions with each/most villages as well as District level staff.
- ii) Issues to contribute to the Watershed Blueprint

Implementation:

1. Specific questionnaire to be developed so that issues are identified in relation to what the issue is, what is its history (eg. when it became a problem), perceptions of its cause and solution, its location on the base map.
2. Two options for filling in:
 - a. do it as part of IWMU land use mapping workshops;
 - b. contract a local consultant to conduct village interviews. This could be assisted by using and international water sociologist.

This latter option is preferred as it directly engages villagers.

7. Develop and undertake community based land, water and environment monitoring:

Description

There appears to be very little real monitoring information on the watershed's water resources. Of particular relevance here is the quality of the water, fisheries, river health (eg. sedimentation of rivers,

eutrophication, barriers to fish movement, connection to wetlands and floodplains, etc). The approach could also easily include some basic measures of land (eg. erosion) and environment (eg. wetlands, conservation forests) condition.

This situation is a common feature of planning and management in watersheds. Rarely will there be the funding and resources to undertake 'formal' and more scientifically correct water resource monitoring. The collection of monitoring data by the community (including schools) can provide useful information and is much better than the alternative of no information.

Purpose:

- i) To initiate and trial some innovative community based monitoring of land, water and environment, approaches.
- ii) To collect some initial information that could be used in the preparation of the Blueprint and identification of hotspot areas.
- iii) To develop and trial an approach that could be used and further developed and used more widely in the Mekong Basin
- iv) To raise community awareness of watershed issues and their management

Implementation

1. IC specialist in community based monitoring design methodology including cheap equipment as appropriate.
2. Inclusion of community awareness raising aspects
3. Methodology used in the watershed on a trial basis.

8. Update Nam Ton Baseline Study:

Purpose: To update the Nam Ton Baseline Study

Description: The current Nam Ton baseline study is 3 years old and can be updated using information gathered by various project reports from this project, MRCS-BDP and DSF, the KfW report and studies mentioned above (6,7,8). In particular there is a need to include water resource issues in the Baseline study.

Implementation: GTZ Lao office with a local consultant.

9. Produce Watershed Management Blueprint:

Purpose: To produce the Watershed Management Blueprint.

Description: The Blueprint would be produced based on work conducted as part of studies 5-8 above. A brief map based product taking a 'hot spot' approach should be aimed for which could form the basis for line agency planning at the District level. The best and most appropriate product format should be discussed with district staff to assist the interface with socio-economic planning.

The hotspot approach would include:

- Priority locations for identified actions, targets scoped where possible, responsibilities identified, nature of remedial treatments described, order of magnitude budget needs identified.

Implementation:

- A table of contents (example) needs to be developed in some detail and discussed with Districts (it needs to support their planning needs) and the Project Steering Committee- IC (10 days)
- Contract IWMU to provide and assist with visual product development.
- IC to assist local consultant, District staff and IWMU in preparing the snapshot (1 week)

10. Draft of initial watershed safeguards checklist for sectoral plan development:

Purpose: To prepare a checklist for trialing as a means for determining whether line agencies have included watershed issues in their annual socio-economic planning.

Implementation

IC prepare sample checklist and associated process for trialing (10 days)

Annual Nam Ton Watershed Dialogue

The annual workshop would involve participants who might eventually be members of a watershed committee plus other stakeholders. For example,

- Governors from each District and their Directors from Land, Agriculture and Forestry
- District and Provincial Land, Agriculture and Forestry Directors
- Directors from the national Water, Land, Agriculture and Forestry Departments
- Directors from other line agencies depending upon the issues identified as important and requiring attention in the Blueprint.
- Key (large) water users (including possible polluters) such as mining, forestry concession holder(s), irrigation, urban water users.
- Project Steering Committee
- GTZ project staff

The following agenda items might be included:

11. Stakeholder Consultations:

Key private sector based water users in the watershed (eg. large mines, irrigation area) provide presentations on their water issues (eg. needs, development plans, safeguard practices). This will inform the future development of the Blueprint by identifying additional issues and needs.

12. Presentation on Watershed Management Blueprint:

A presentation on the watershed blueprint would be made. This needs to address:

- results of the village level consultations and the problems perceived at that level
- the future issues such as hotspots, specific targets,
- role (and process) of individual agencies in implementation,
- the checklist approach

Individual agencies should be asked to respond.

13. Community monitoring activities:

A report on the community monitoring work and especially results of community monitoring work would be provided and assessed for its contribution to watershed planning and how it might be improved

14. Discussions on watershed governance arrangements:

The workshop would discuss watershed governance arrangements and how they wish to proceed in the next phase of the project.

15. Next phase of project:

Discussion of a workplan and activities for a follow-up project would be presented and discussed

Attachment 1

Interviews Held

Name	Position	Institution
Dr. Phouangparisak Pravongviengkham	Director General	Dept of Planning, MAF
Dr. Thatheva Saphangthong	Dp. Chief	Information and Technology Center, MAF
Ms. Phonevanh Outhavong	Dp. Director	Department of Planning & Inspection, CPI
Mr. Saysongkharm Phimmasone	Dp. Director	NAFRI, MAF
Mr. Kham Sanatem	Dp. Director	NAFES, MAF
Mr. Somxay Sisanonh	Director	LEAP Project, NAFES, MAF
Mr. Bouahong Phanthanousy	Director	SUFORD Project, NAFES, MAF
Mr. Bounphoun Sengthong	Dp. Director	SUFORD Project, NAFES, MAF
Mr. Thongpat Vongmany	Dp. Director	Dept of Forestry, MAF
Dr. Viengsavanh Douangsavanh	Director General	Dept of Environment, WREA
Mr. Phengkhamla	Chief	NT2 Unit, Dep. Env., WREA
Mr. Phonechaleuan	Director	Dept of Water Resource, WREA
Mr. Chanthanet Bualapha	Dp. Director	Dept of Water Resource, WREA
Mr. Noupanh Mahaphome	Director General	Department of Policy and Land Inspection, NLMA
Mr. Vongdeun Sihalath	Dp. Director	Department of Planning & Development, NLMA
Mr. Bountiang Sanaxon	Chief	Policy Unit, Department of Planning & Development, NLMA
Mr. Bouaphanh Konedavong	Dp. Director	PAFO VTE Province
Mr. Phouvong Rasavong	Chief	WSMP Province Coordinator, Planning Unit, PAFO VTE Province
Mr. Vongvichit Khonglath	Governor	Hinherb District
Mr. Somsy Phommany	Chief	DAFO, Hinherb District
Mr. Thongsouk Vinavong	Chief	Na Xam Village Cluster, Hinherb District
Mr. Latsanivong Amarathithada	Director	PAFO VTE Capital
Mr. Chantha Thiphavongphanh	Dp. Director	PAFO VTE Capital
Mr. Sengmoung	Officer	WSMP Province Coordinator, Irrigation Unit, PAFO VTE Capital
Mr. Sy Bountham	Governor	Sangthong District
Mr. Bounyong Vongphachan	Chief	DAFO
Mr. Khamphan Keopaseuth	Chief	Planning and Compilation Office
Mr. Duongta Soulivong	Chief	District Cabinet
Ms. Phaithoun	Chief	LWU
Mr. Bounhong	Chief	Commercial and Industry Office
Ms. Mai Inthalangsy	Group Leader	Pro Rice Project, Sangthong District