

**Summary Note on  
Awareness Raising on Basin Management Approach  
Baray Commune, Srey Santhor District, Kampong Cham Province**

## **1. Introduction**

On 28 September 2016, the CamboWP conducted Awareness Raising on Basin Management Approach with 18 participants who are Commune Council Members, Village Leaders and Deputy Leaders and Villagers of the Baray Commune which is located in the Mekong Floodplain.

The objective of the workshop is to conduct the sub-activity 1.1 on “Focus group discussion to understand community practices on water resources management in the floodplain, including existing organization and mechanism and gender actions.

The workshop started with an Opening Remarks by the Commune Leader with brief information about the floodplain and the community; followed by an introduction of the CamboWP and the Basin Management Approach Workshop by the Chair and Focused group Discussion and a brief site visit.

## **2. Overall findings**

### ***Srey Santhor District***

Baray commune is one of the 14 communes in Srey Santhor district of Kampong Cham province. Srey Santhor district is a district located on the Eastern part of the Mekong River in Kampong Cham Province of Cambodia, around mid-way between Phnom Penh City and Kompong Cham city, lying on the border with Prey Veng and Kandal Provinces. It was briefly the capital of Cambodia during the post-Angkor era from 1431-1434.

Srey Santhor district (Map 1) is divided in 14 communes, (namely, Baray, Chi Bal, Khnar Sar, Koh Andet, Mean Chey, Pteah Kandal, Pram Yam, Prek Dambauk, Prek Por, Prek Rumdeng, Russey Srok, Svay Por, Svay Sach Phnom, and Torng Tralach) and 86 villages. According to the 1998 Census, the population of the district was 91,765 persons in 18,224 households in 1998. Srey Santhor district has an average district population for Kompong Cham province. The average household size in Srey Santhor is 5.0 persons per household, which is slightly lower than the rural average for Cambodia (5.2 persons). The sex ratio in the district is 92.0%, with significantly more females than males.

Between July and November 2000, Cambodia was affected by catastrophic flooding in all provinces located in the Mekong floodplain along the River (Map 2). As most of Srey Santhor district is low lying along the Mekong, Srey Santhor was subjected to annual flooding when the Mekong rises. In 2000, 90% of the land areas in the district were flooded and 95% of the annual rice crop was completely destroyed. Later on, in 2011 and 2013 this district also was severely affected by the Mekong Flood (Map 3 and 4).

## **Baray Commune**

Baray commune is located in Srey Santhor district, Kampong Cham Province (Map 5). Baray, currently, is one of the two communes in Srey Santhor that is affected by the Mekong Flood almost every year, except when the flood level is low. Another commune is Pram Yam which is usually flooded during the flood season. For instance, in 2011 and 2013, only some high spots are not flooded, especially the areas near the pagoda. Baray and Pram Yam communes are located in the flooded areas, 5 km away those which are located along the Mekong River. All the communes were flooded by the Mekong water almost every year in the past.

Baray borders with Pteah Kandal on the West, with Prek Dambauk and Svay Sach Phnom communes on the North, Prek Rumdeng commune on the East, with Pram Yam on the South-West, and with Prey Veng Province on the South.

It is composed of only four villages, Kaphlak, Banteay, Sya Ampil and Sya Boeung Veng. There are 1,441 families living in the whole commune, with a total population of 11,740 persons. There are two middle schools and one health center and only two pagodas in the whole commune. Two roads were built in 2013, one connecting with Prek Dambauk commune to the West and another with Prek Rumdeng to the East. With these two new roads, making people movement easier.

### ***Water resources available and uses***

The main water resources of the commune include the Mekong River and its flood water, rainfall, small tributaries of the Mekong tributaries. Floodwater is stored in the natural lakes/reservoirs (4 main and 8 small) for all agriculture, fisheries and domestic uses.

The four main reservoirs are Boeung Kak, Payday, Sya Boeung Veng and Nuon Sar. Payday, is located close to Boeung Veam Lake of 2km wide and 8km long, is the biggest lake among the four main reservoirs. Boeung Veam reservoir gets water from Mekong flood during the flood season through Prek Dambauk and Stung Roka Thvea Tributary. It is understood that if there is a canal, about 700m, bringing the water from Boeung Veam to Payday reservoir, the cultivated area supported by Payday reservoir could be expanded for increasing rice production. There are also 8 small reservoirs in Baray commune.

There are 1,441 ha of rice field, of which 1,040ha for dry season crop. 90% of the people in Baray commune depend only on natural rain-fed rice production, while the remaining are sellers and others. They do the dry season crop and the wet season crop, supporting by four small reservoirs built since long time ago (no date available).

Bay Day reservoir can feed 400ha of rice field. Sya Boeung Veng reservoir can water 400ha of wet season and 270ha of dry season rice crop. Boeungkak can support 270ha of dry season rice crop, while Nuon Sar is for 300ha rice crop. If there is not enough water during the dry season, people can use water from the digging wells. There are a total number of 355 wells in the whole commune.

New varieties of rice seed have been used instead of old ones, which are many of them are long term ones. Only rice is the main product which depends mainly on natural water, in Baray, and there is no other subsidiary crops, no handicrafts. People now use machinery for their rice cultivation, including ploughing and harvesting. Buffalos have been the main and only force for rice cultivation, but nowadays they are fed for meat. Flood is very important for Baray commune as it will refill all the reservoirs, as well the nearby reservoir such as Boeung Veam.

Clean water supply for the whole commune was supported by donors from Lyon, France since 2004 at the price of 1,600\$/Cubic meter. In the past the people used the water from the digging wells. It was also reported there during the recent dry season, there has been not a big issue for clean water supply in Baray.

Half a century ago, Baray is an isolated commune and it was hard to go there even during the dry season as there was no proper road access. It was easier during flood season since we can use boat as means of transport. As Baray is situated in the floodplain, every year Baray is affected by Mekong flood. During the severe flood year almost the whole commune was flooded, except some areas which have been used as safe areas for animals, such as buffalos, pigs, etc. In some parts of Baray, the flood depth can reach to around 2m deep.

### ***Community water resources management practices***

According to the community, they have the same water sources that they used to have in the ancient time. Traditionally, management of water resources in this area is managing the Mekong flood which is a natural flooding ecology. The flood water is naturally stored in the lakes and reservoirs and in the temporary wetlands which constitute rain-fed lowland rice cultivated area. What have been the main changes include:

- Change in flood performance. The Mekong flood does not reach this area in the last three years (2014, 2015 and 2016) leading to water shortage and causing difficulties for rice cultivation and deducting opportunity for fishing activity and income;
- The lakes become shallower;
- Change in people's cooperation in water sharing, they tend to take individual action, compete for resources and are not coordinated; and
- People willingness to participate and contribute for common interest.

### ***Issues***

The community raised the following issues related to water security and water resources management for the future:

- Water security needs to be addressed.
- Have been identified as one of the poorest communes in the district, intervention with a number of development projects were initiated, but since there was no participation from the local people, those projects were returned or reallocated to others communes.

- People experienced with loss of their rice fields located along the canal or the road from year to year. They also complained that their rice fields along the canals and roads cannot retain the rainwater as in the past due to earth in the part of their rice fields that is located along the canals and roads had been dug and used to build roads or dams; and at the same time, the water is drained through a number of small holes along the canals.
- A canal of about 700m long connecting Boeung Veam Lake with the Pay Day reservoir is in real need to bring water from Boeung Veam Lake to enable them to expand the rice cultivated areas further Southern and South-Eastern part of Bay Day reservoir.
- Coordination of the water resources use and management at present has been difficult compared to 20 years ago. Improvement is required for water resources access to all.
- Flood performance has changed. Although Mekong flood causes damages, but it also provides a lot of advantages and valuable resources for the farmers and fishermen. Without flood, there will be a big loss of opportunities, including water shortage, reduced soil nutrients leading to reduced rice production, loss of fisheries resources, rats and pests outbreak, forest land clearance and people migration.

### ***Gender actions***

Women participate in water resources management at household based action. They tend to take care of household's drinking water, while men look after water for cultivation.

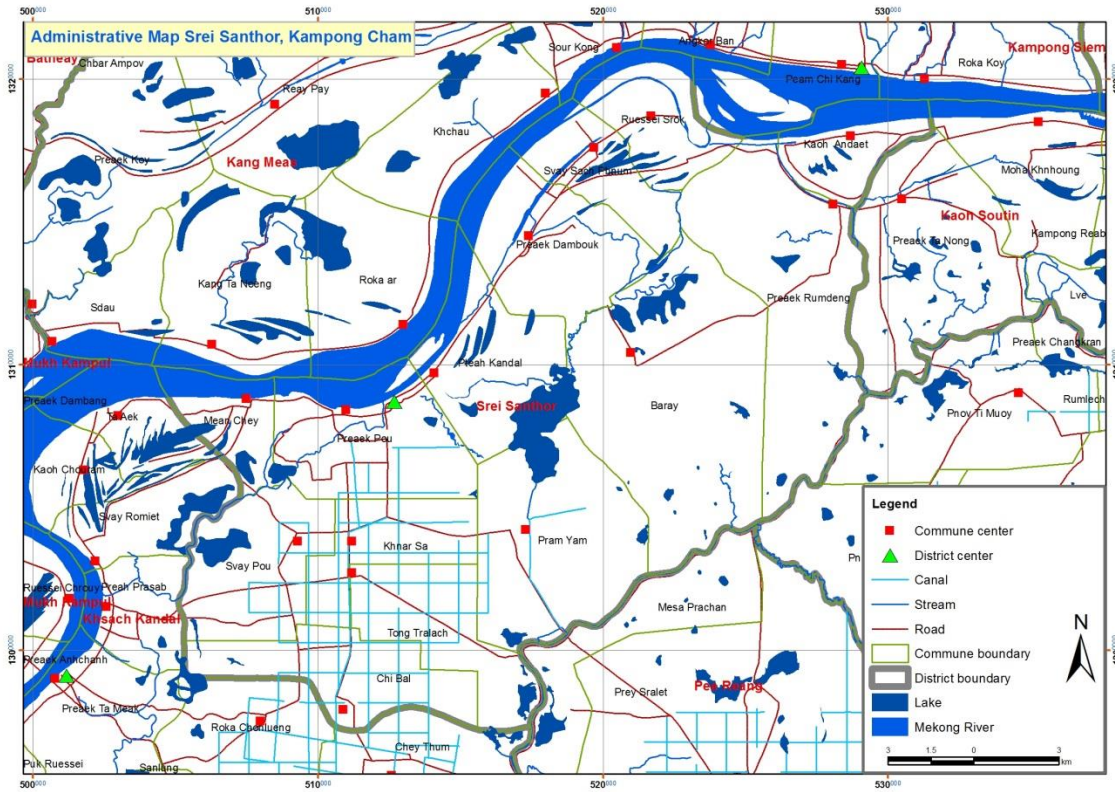
### ***Water resource management and development planning***

The water resource management and development is planned at the commune level. The planning process is started by the Department Director from the Provincial Development of Water Resources and Meteorology (PDOWRAM) facilitates the village Leaders and women and men Villagers to identify issues and needs encountered; then based on issues and needs, identify and prioritize projects and activities; and finally disseminate those planned projects/activities to the IOs and NGOs for funding. Contribution and/or donation in the forms of in-kind and in-cash from the communities are routinely applied using Communal Funding Framework.

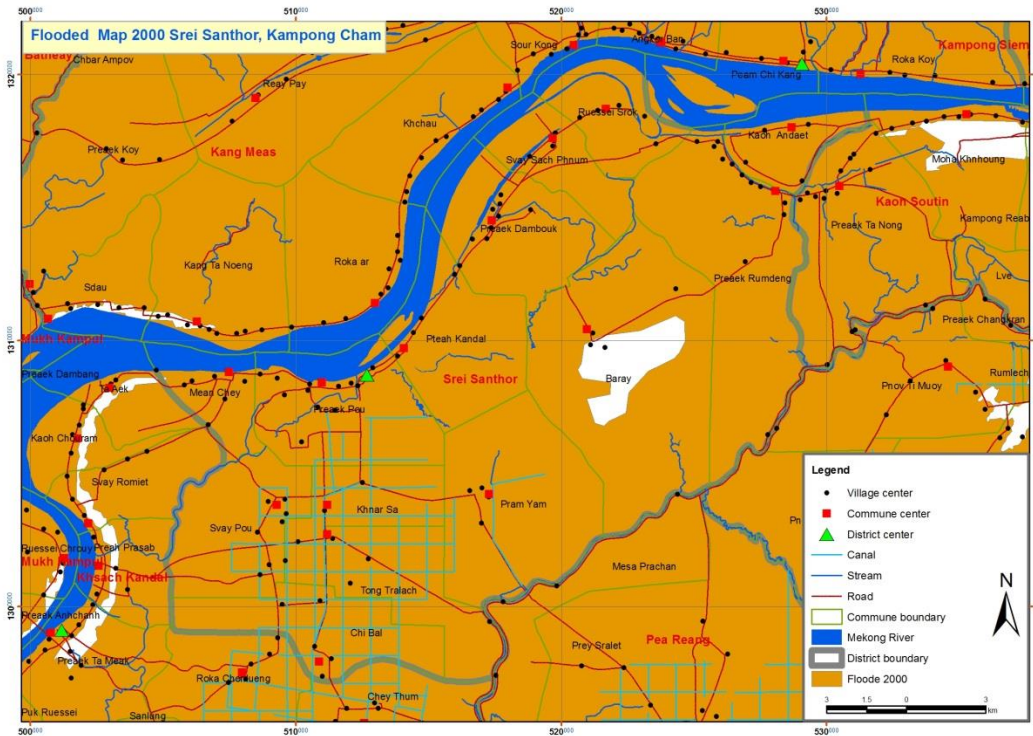
### **3. Next actions**

- Based on community practices, initial ideas on basin management approach in water resources management is prepared for awareness raising to the community.
- Strengthen the water resources management and development planning based on IWRM and basin approach in order to address water security.
- Decision and Commitment by the Commune Council and the whole communities
- CamboWP follows up and support.

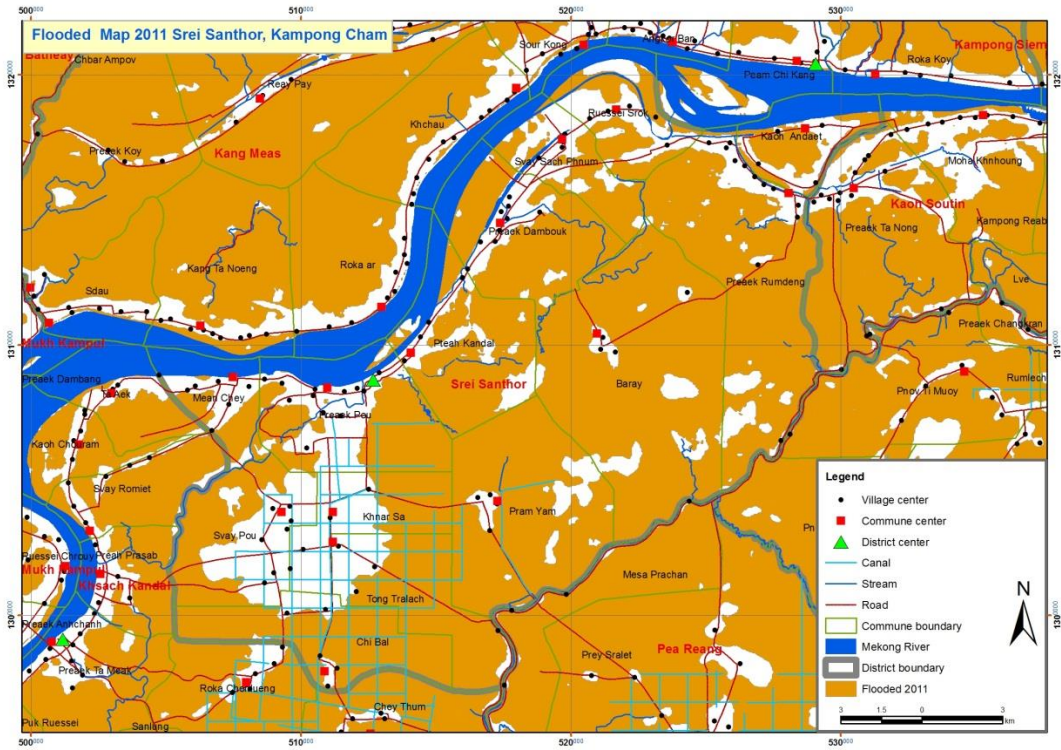
**Map1. Srey Santhor District**



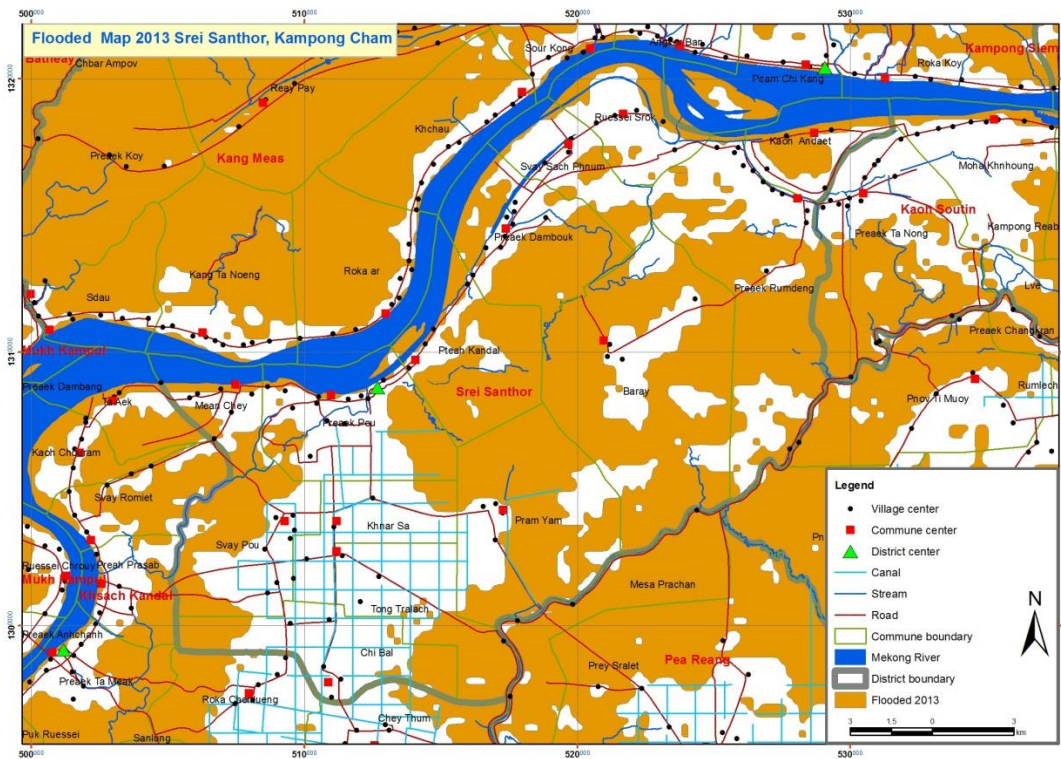
**Map 2. Flood 2000 in Srey Santhor District**



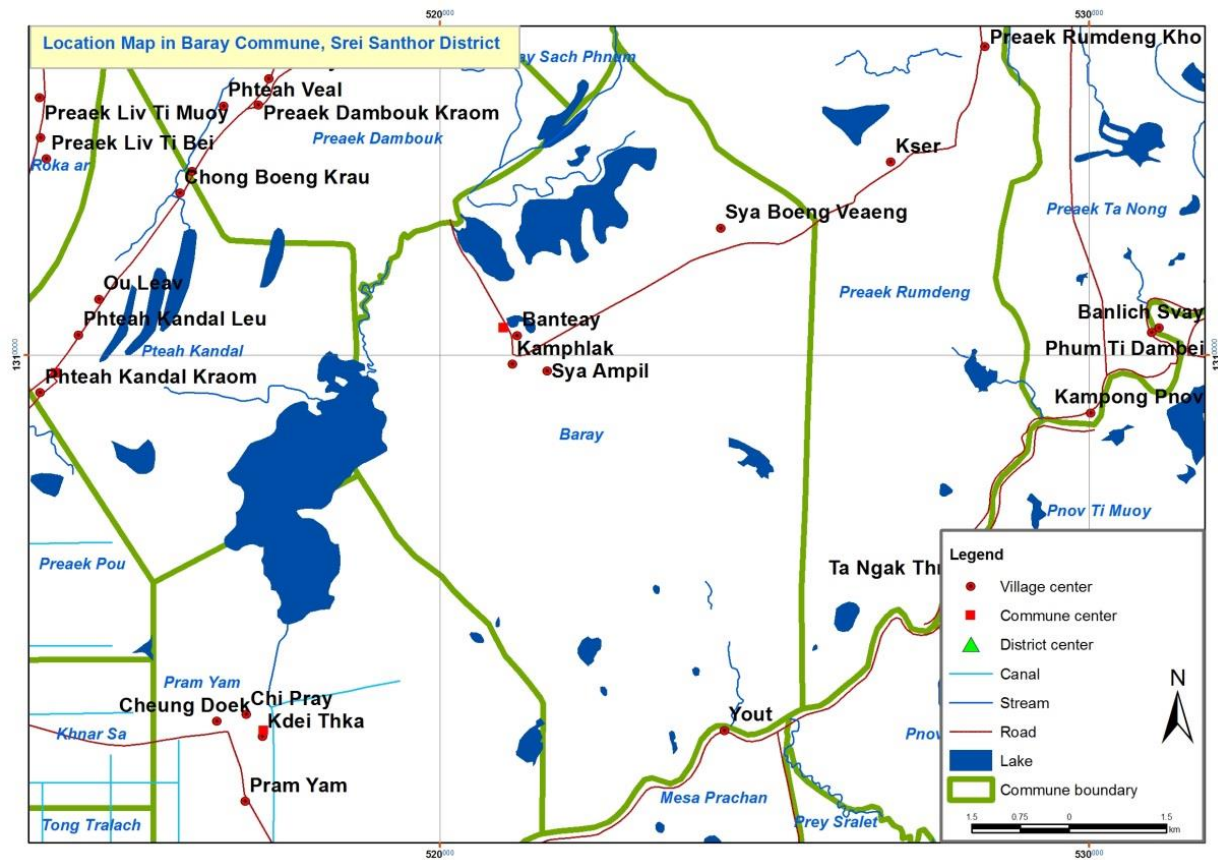
Map 3. Flood 2011 in Srei Santhor District



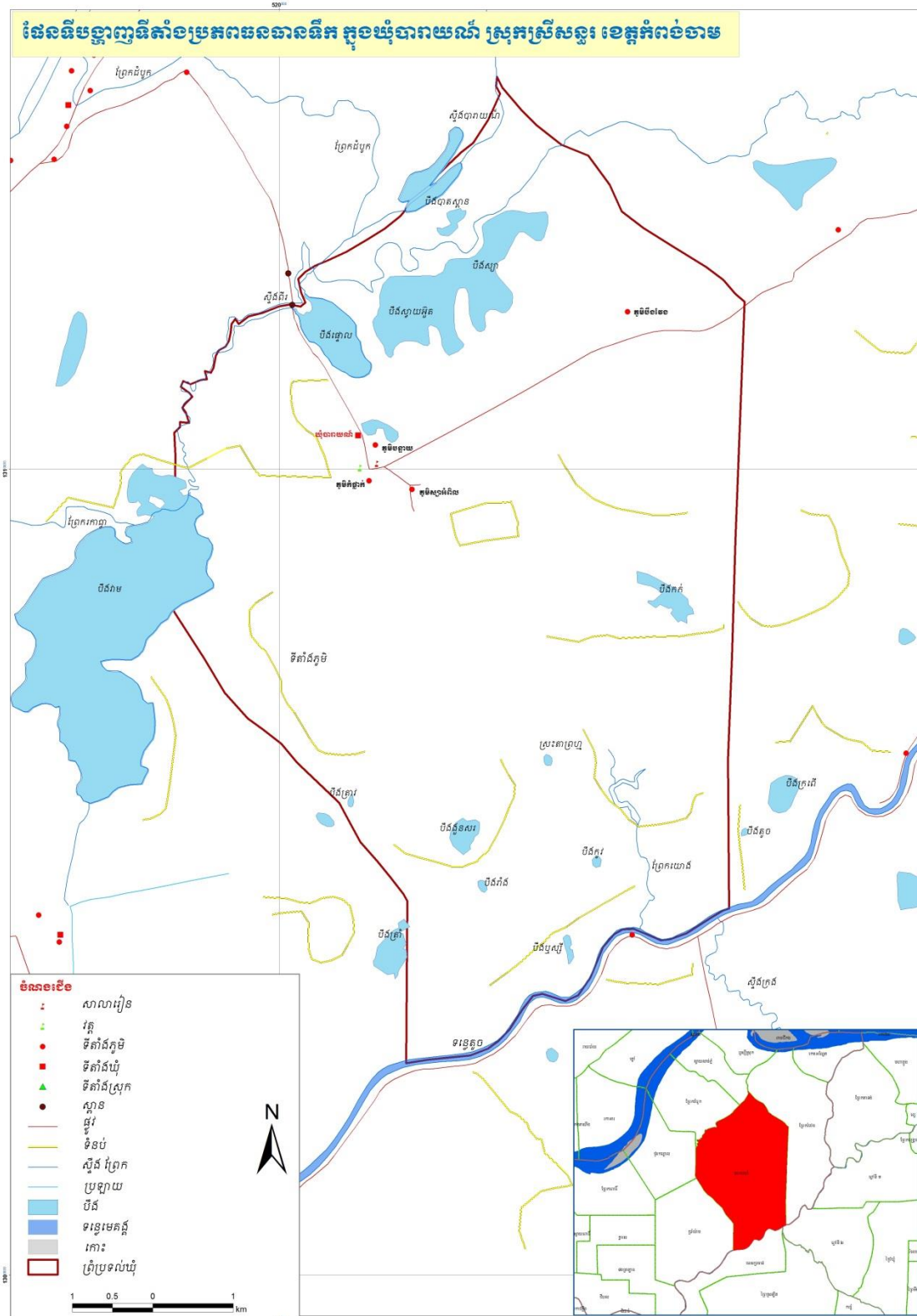
Map 4. Flood 2013 in Srei Santhor District



Map 5. Baray Commune Location

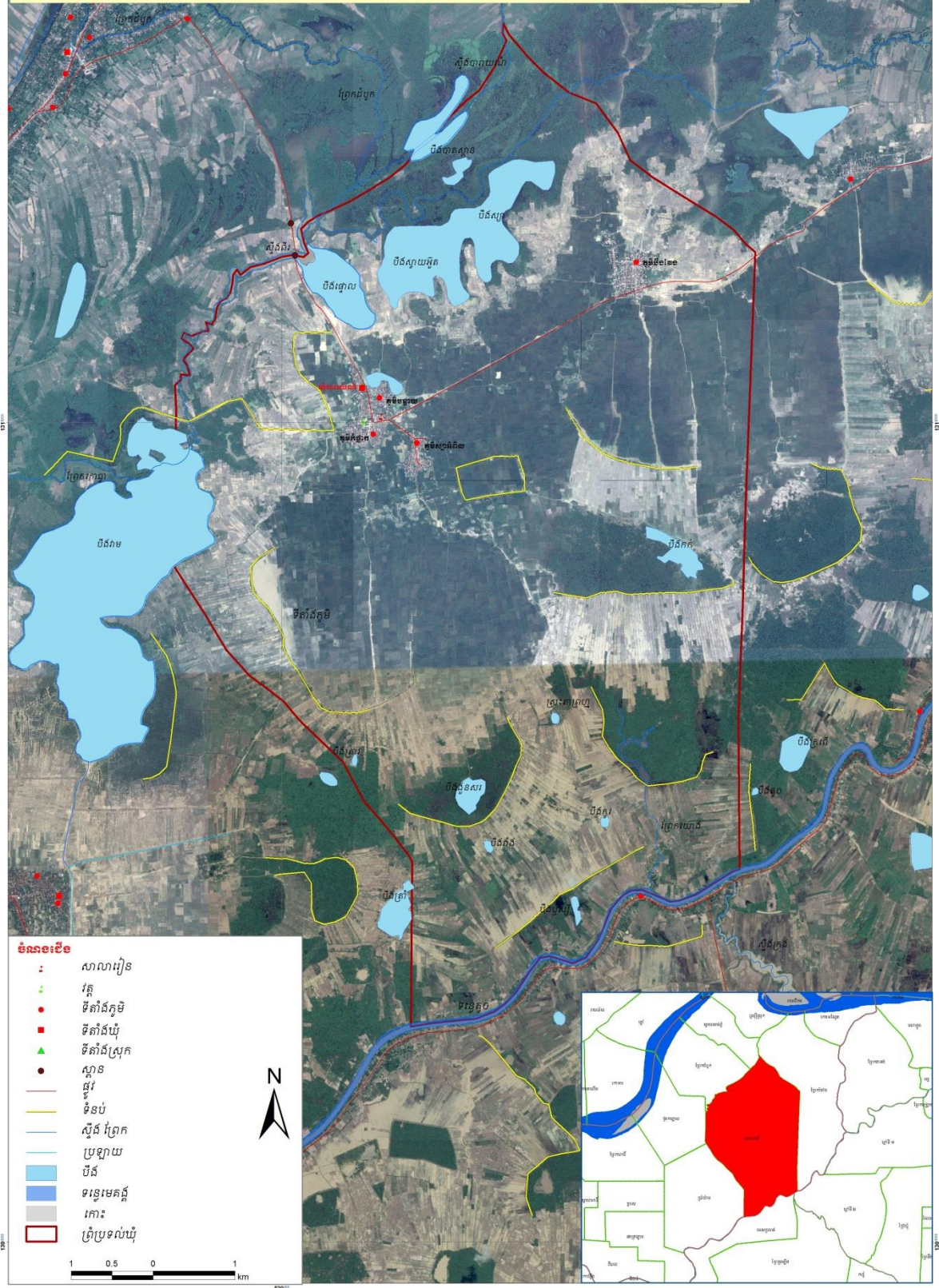


Map 6. Improved Water Resources Map based on community's for their use





**ផែនទីបង្ហាញទីតាំងប្រភពធនធានទឹក ក្នុងឃុំបារាយណ៍ ស្រុកស្រីសន្ធឹះ ខេត្តកំពង់ចាម**



Focused Group Discussion Photos



