

**THE NATIONAL CONSULTATION**

**ON**

**WATER AND SANITATION**

**(VISION 21)**

**Date : May18 -19, 1999**

**At : PDA Building, Bangkok**

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## The National Consultation on Water and Sanitation (Vision 21)

The National Consultation was held at PDA Bangkok on May 18-19, 1999. The main purpose was to find out "The past and present situation of the water in Thailand" and "Trend and Resolutions in water resource management for the next century". PDA invited the following three professional speakers; Dr.Aphichart Anukul-amphai from National Water Resource Office, Mr.Sahas Treetipbut from Krung Thai Bank, and Dr.Kovith Vantasath from the Thailand Institute of Scientific and Technological Research. There were 63 regional representatives who had joined PDA for this activity. All the subjects presented were designed to help these attendees to understand the direction of water resource management for the future and to provide the proper programs to solve the water problem in Thailand.

### Summary

There were 63 attendees who joined the consultation. They came from many parts of Thailand, as showed in Table 1. The consultation discussed not only the issue water directly, but also peripheral issues that influence the environment and availability of water resources. The details of this consultation are presented in the next section.

Table 1 : Participants on the National Consultation.

<b>Regional area</b>	<b>Number of people (persons)</b>
Bangkok	20
Northeast	30
West	3
South	2
Upper North	6
Lower North	2

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## Day 1<sup>st</sup> ( May 18, 1999)

Speaker(lecturer) : Dr.Aphichart Anukul-amphai

Director of the National Water Resource Office

- Topic :
- 1) The past and present situation of water resource development in Thailand.
  - 2) The trend of water resource management in the future (21<sup>st</sup> Century).

During the last century, there were 3 periods in Thai water resource development. The first involved, people digging many canals or water roads around the city for transportation and agricultural purposes. They normally traveled to other places by using small boats. Therefore, it was necessary to provide water ways to allow boats to go everywhere easily. In addition, water from canal was fed to most of the plants which people grew in their fields. This was why people who lived in the past time preferred to settle near canals or rivers. However, people felt that they wanted to keep more of the rain water from the rainy season. So, they built many big dams throughout the country to save water for using in the summer season. This was the second period of water resource development. Moreover, the dam was used for generating electricity and it was a major supply for the country during that time. Later, people were worried about the forest that was damaged by building a big dam. More and more people disagreed with the government policy to build more dams. As a result, the government changed its policy to develop small scale of water plants in place of big dams. That was the last stage of water resource development in Thailand.

Today people use a lot more water than in the past. The major water source in Thailand is rain. The average annual rain fall is 1,600 mm. There are 2 types of water that people use daily. One is ground surface water and the other is under ground water. For ground surface water, there is 200,000 million m<sup>3</sup> / year and there is 600,000 million m<sup>3</sup> / year for under ground water. In the Bangkok area only, under ground water is used at a rate of about 2.5 million m<sup>3</sup> every day. There are 3 major sectors that use water.

The first sector is agriculture, which use the biggest quantity of water ( 80% of all water used in Thailand ). The other sectors are the industrial and household sectors. In particular, it has been found that there is a significant difference between people who live in Bangkok and rural areas. In Bangkok, one person uses 200 litres of water every day, but those who live in rural areas use only 50 litres of water every day. Consequently, it is important to convince people to be aware of the following four principles;

- 1) Water is a limited natural resource.
- 2) Water is an economic good.
- 3) Stakeholders have to participate in water use.
- 4) Women have to have the opportunity to participate in management of water resource development.

Although, the government is trying to improve water resources it still has a few problems which affect water resource development in Thailand as follows;

- 1) The rapid growth of economic and social development.
- 2) Inappropriate plan and budget of the government.
- 3) Many government departments involved in water resource development but low coordination between departments.
- 4) The conflict between water resource development organizations and natural conservation groups. E.g., the government wanted to build a new dam but it was interrupted by forest conservation groups.

Nevertheless, these problems could be solved though the following suggestions;

- 1) Political will and policy commitment in water resource and sanitation should be strengthened.
- 2) The government organization should concentrate on integrated water resource management and demand side response program should be carried out.
- 3) Sustainable development should be considered in terms of ecology and social issues.

- 4) An independent water resource organization should be established and all stakeholders need to be fully involved.
- 5) Water act must be considered shortly.

In addition, Non-government organizations(NGO) should be one of the major units who protect this country from water resource problems in the 21<sup>st</sup> century. Therefore, NGOs should emphasize these strategies.

- 1) Provide a water resource development concept for stakeholder.
- 2) Waste water management should be used widely and developed to be an appropriate model.
- 3) Promote the people participatory approach in water resource management.
- 4) Renovate the poor quality of natural water resource to be in good condition.

After the lecture by Dr.Aphichart, all of the participants were divided into 3 groups. Each group discussed two issues. First issue was to exchange their experiences on water resource development and the second issue was to find out the way to go after the year 2000 which focussed on participatory approach. The results of this brainstorming showed as follows;

- 1) The experience in water resource management

Every group was agreed that PDA had succeeded in water resource development during the past 25 years. Practically, many water resource and sanitation were widely promoted, such as water tank, water jar, deep well, sky irrigation, training, and people participatory approach. In conclusion, they summarized their experiences and found what NGO and GO should do to be successful in water resource development as follows;

- GO and NGO should join with people to develop their water resources by following the effective plan that other organizations have done before, such as PDA projects.
- Maximize the usefulness of the remaining water resources.
- Encourage people to participate in every program that develops their water resources.

- Inform other organizations of the successful project in order to study and develop a workable plan.
- Set up maintenance groups to take care of the damage to water systems whether they belong to the government or private sector and extend this unit to be a profitable sector in the future.
- Build more water tank in rural village in order to supply water to towns with inadequate supplies.

**2) The way to go for water resource development beyond the year 2000**

There are many ways to do water resource management. However, the following options would be the most proper and possible methods to work in Thailand.

- Educate people in how to recycle their water, so that they can reach the maximum point of usefulness from the water.
- Encourage people to love and maintain their water resources carefully.
- Promote agricultural sector to grow plants that use less water.
- Encourage people to participate in every process on management of water resource.
- Transfer water technology other countries such as Laos, Vietnam, and Burma.
- Promote people who live in big cities to have concern about saving water for their future.
- Convince NGO, GO, and related groups to implement the same direction in order to create any new program that helps and supports the national plan.
- Set up a capital fund to help villagers to develop their water resources.
- Establish a water service unit to supply information and consultation for any group that needs it.
- Seek more capital funds from investors or donors in order to create a water plan and develop water projects.

- Emphasize the cooperation between local Sub-District Administrative Organizations and NGO/GO who work on water resource development.
- Promote agricultural groups use of water piping system to control and save water in their fields.
- Promote each village having a waste water treatment system which is operated by natural process such as using selected bacteria and which is not harmful to the environment.
- Continue to develop "Mechai water tank" projects in rural villages.
- Use solar energy system to control water pump.
- Develop model of water tank to be easy to install and maintain.
- Educate people to understand the bad effects of using underground water instead of the water from rain or river.

Moreover, the good outcome projects should be continued. The demand side response program should be carried out and introduced to other organizations. The concept of water resource management should be taught in primary school and be provided for youth as well.

### **Day 2<sup>nd</sup> (May 19, 1999)**

Speaker(lecturer) : Mr.Sahas Treetipbut

Senior Executive Vice President of Krung Thai Bank

Topic : Role of Krung Thai Bank on supporting NGO's project.

Krung Thai Bank, where Mr.Mechai Viravaidya is Chairman of the Board of the Executive Committee, recently had some changes in its policy to reduce the gap between the bank and the villagers or poor people due to the new chairman's vision. KTB intended to invest money into the village throughout the whole country in order to expand and strengthen its customer base to cover most of Thai population who lived in the villages. PDA was one of the very first models of NGO for KTB to study and set up a proper regulation and strategic plan in order to loan a capital fund. Then, KTB would

widely open to help NGO or groups of villagers to develop their natural resource and lift up their living standard. This policy was not only designed to increase customers for KTB itself, but also to benefit Thai people. Furthermore, when people asked for a reasonable loan, they would be advised how to manage money efficiently and new technology for their job too. Therefore the possibility of failure would be reduced and the bank finally received the money back from the borrower.

On the other hand, KTB would introduce NGO a suitable business theory to improve its project to be an economical and sustainable project. As a result, villagers would have the capability to stand by themselves and their natural resources would always be clean and available even if the NGO's project had finished.

**Speaker(lecturer) : Dr.Kovith Vantasath**

**Director of Technology Transfer Department**

**Thailand Institute of Scientific and Technological  
Research(TISTR)**

**Topic : How other organizations can learn and use TISTR's  
technology for helping people.**

TISTR was the government organization who had been doing research that concerned a number of environmental technologies. TISTR had created many new technologies and solved many problems to help Thai people to have a better environment. Any person or organization, who wished to transfer TISTR's technology, was able to contact directly and TISTR was ready to support any available technology to help people without charging any money. Therefore, NGO and another organization should fully cooperate with TISTR to gain advantage for their project.

TISTR introduced some technologies for the listeners. First was a soil-cement block. This product was made from soil and cement. It was used as same as a cement block to build a house or storage room. However, it was easier and cheaper to make a soil-cement block and it used less cement than a normal cement block. Therefore, the amount of raw material which came from the mountain would be reduced if people used more soil-cement blocks



instead of cement blocks. The second one was a instant soil bar for growing plants. This soil bar was made from a paper making factory's waste. This soil bar was tested and found that most types of trees are able to grow well in this product. It is not harmful to the environment and it also reduced the amount of the waste from the factory as well.

### **Conclusion**

The National Consultation on Water Resource Management, which was managed by PDA, made all the participants understand the water resource situation in Thailand. The experiences that they shared with each other led to the solution for member's problems that they had met in the field before. They accepted the participatory and integration approach and realized the demand side response on water and sanitation program. There were a number of strategies from the consultation that were able to help these participants to work in water resource development projects by having less dependency on GO supply. Moreover, each member was able to create an appropriate program that concentrated on the same direction for achieving the 21<sup>st</sup> century's vision. In addition, the follow up plan of action was able to carry out shortly.

In the future, the cooperation between each sector, such as NGO, GO, private company, and community would be the important factor to reach success. Some organizations which had a weak point or lacked of some management or technology would be able to be strengthened by the other organization's help. This kind of relationship would be the great way to improve Thailand to be ready for the 21<sup>st</sup> century without any water problems.