

Brief of the Issue of Drinking Water Supply in Hue City, Vietnam

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Abstract: Hue city Company of Water Supply is in charge of producing and supplying the drinking water for Hue people, the neighboring areas and the whole Thua Thien Hue province. In the last years, the rate of using drinking water and the supplied drinking water areas of Company has increased more and more. In the early the year of 2003, Yokohama Water Institute annually gave experts to help company in improving production and water supply for customers. Not more than 03 years, the results of company are wonderful and it will be a good example of water industry for Vietnam urban areas. It means that the cooperation with foreign experts is successful. Water quality is improved, rate of leakage is discovered easily; community cooperated with company on investigating water quality; community awareness is upgraded; the company has many activities for community. With the developing economy as Vietnam, about the issue of the drinking water supply for urban, the international cooperation on nominating experts are very important and effectives.

Keywords: activities for community, ratios of leakage, services to customers, water quality, drinking water.

I. INTRODUCTION

Hue city Company of Water Supply is in charge of producing and supplying the drinking water for Hue people, the neighboring areas and the whole Thua Thien Hue province. In the last years, the rate of using drinking water and the supplied drinking water areas of Company has increased more and more. Hue City Company of Water Supply is one of best companies of Vietnam. The Company has received award of President of Socialist Republic of Vietnam.

II. MAIN ACTIVITIES

1. International Cooperation

In 1997, with the fund of Vietnam Government, French Government aided the ODA to build the QuangTe No.2 water treatment plant with the capacity of 27,500m³ /day and improve the old water pipes system in Hue city.

In 2000, Funded by CITYNET - Japan, the company nominated 01 employee to learn in Yokohama Water Institute-Japan on *Anti leakage*. In 2001, 01 employee of company learnt in Korea on *water quality management* funded by the program of KOIKA-International cooperation.

From 2003, supported by JICA-International cooperation Japan, the company had the cooperation program with Yokohama Water Institute to 2005. The detail is below:

In 2003: Two experts of Yokohama Water Institute worked in the company 01 month on the following fields:

- Discovering the leak of the water supply system by the simple equipments and sophisticated machines.
- Improving the monitor of water-meter of customers.

In 2004: Two experts of Yokohama Water Institute worked in the company 01 month on the fields as follow:

- Investigating the water supply system & services to customers.
- Upgrading the quality of water product & bettering the method of water analysis

In 2005: Two experts of Yokohama Water Institute worked in the company 01 month on the following fields:

- Improving the services for customers.
- Monitoring the water filter plants and maintaining the machines.

Exchanging experts, technical officers is meaningful to upgrade the ability of staffs of company, it is the focal point to help company in sustainable development during the progress of economic development of Vietnam and international integration. ***It is time for us to consider that help in nominating experts is as important as the capital loan incentive before. We would like to share this issue to the water production organization of Vietnam and region.***

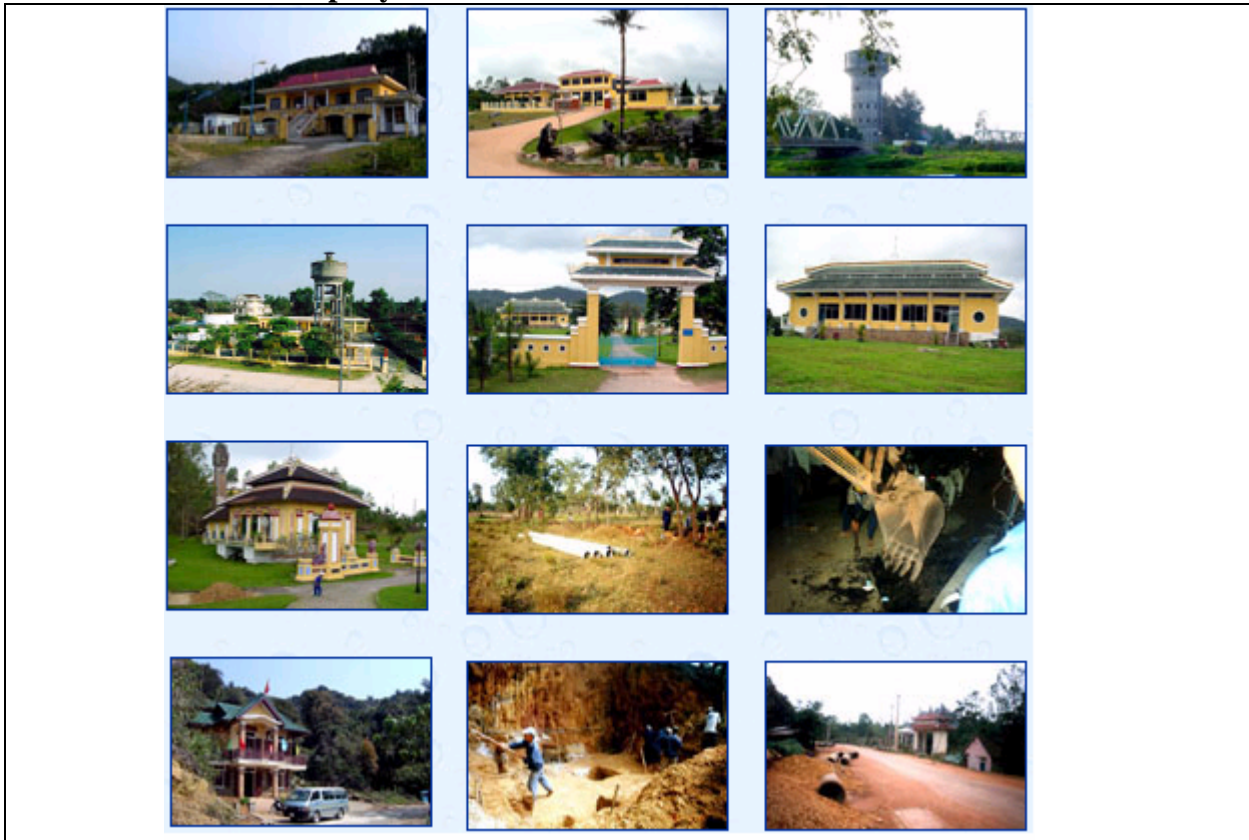
From 2003 at present, the company has nominated 8 officers to train in the Yokohama Water Institute and welcome back 6 Japanese experts to directly work at company as the role of consultancy for monitoring leakage caused by water meter, improving the customer's services, managing the water supply, setting up internet map, controlling water quality and planning the production development service, specially community activities as above.

2. Activities for community

Hue City Company of Water Supply has the activities for community as follow:

- Organizing the picnic for students of primary school in city to visit the water treatment plant.

Some factories of Company



- Cooperating with City Bureau of Education and Training and Children Center of city on participating in the drawing contest "*Water, the worthless resource of human*" to upgrade the children's awareness of natural water resource protection.





- Upgrading the community awareness on water use and protecting natural water resource by the Quiz on natural water resource and running water. This program will be disseminated to entirely province.
- Producing the bottle of PET (natural water) from the water resource in the Bach Ma National Park to upgrade awareness of visitors on nature protection and forest.
- Establishing the hotline to get the community ideas.
- Rewarding for people who discovering the leakage.
- Annually organizing customer workshop, collecting the ideas from the leaders of residential groups on installing new water pipes, water quality; service behavior of water officers.
- Supply freely clean water to the poor areas.



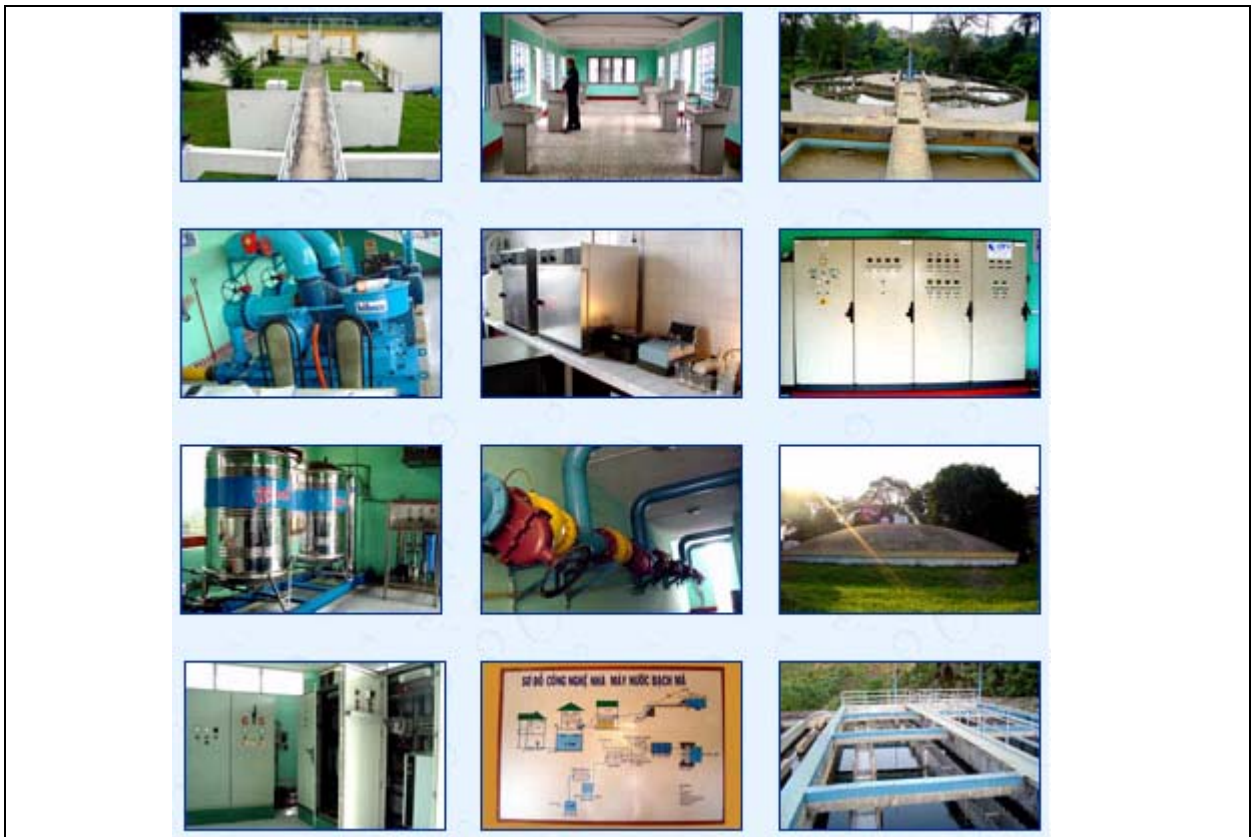
Supply freely clean water site



Supply freely clean water site

- Hue University students are permitted visiting the technical equipments and the laboratory of company.

Company's Technical Equipments



3.Planning for the coming years

To get the quality of water for directly using it in the tap, the company will focus on the task of monitoring the quality of raw water supply, strengthening the target of water analyze and ratio of monitor. (At present, the company has just analyzed at 27 targets in the total of 112 targets stipulated by the Ministry of Health-the targets that are not analyzed have to send to the center in Danang city, Yokohama-Japan to analyze- The analysis show that treated water of company has satisfied the standards stipulated by the Ministry of health).

Strengthening the task of training for the workers of water plant and managerial staff of company.

Developing the ratios of analyzing (mobil-analysing) frequently for the turbidity, pH and the Clouring add (Cl) in the whole water system. Continuously cooperating with the colleges, centers of Hue University to analyze unceasingly the quality of water.

Continuously completing the map of network management (managing the water meter of each customer, pressure of entire system, the quality of water of the whole system as well as the system of water pipes..) to control the production and business of water efficiently.

Concentrating the area, block and cooperating with research of pouring Javel water. Buying the analyzing equipment to improve the analysis of water quality.

Learning experiences from the other domestic plants and regional plants, the company want to seek the foreign partners for the cooperation investment in water production, meeting the demand of using fresh water increasingly of the people in the whole province.

Especially the company will enhance the task of community activities to upgrade the awareness of community in the water treatment, the importance of drinking water and water protection.We will try our best to study some good practices in region and share our experience in this field. Protection water source is very important, water resources is limited, we have to expand some activities to upgrade awareness of Local Citizen on protection water resource.

III. ACHIEVED RESULT

+ In 2005, the yield of water goods obtained 18 billion of m³, threefold increase compared to 1995. However, the number of people using tap-water has get 45% of the population in entirely province, the quality of water has not been able to drink directly in the tap, the rate of water loss has decreased but is undurable, the customer's services are not high and lacking the experiences in the community activities.

+ Average of 9.000 water meters have been annually installed, tens of km of water pipes have been replaced and newly fitted up. The capacity of 11 water treatment plants under the company's management is nearly 100.000 m³ per day and night. The total of length of water pipes of the whole plant now get 800km. The personnel of company is over 400 people, the company is striving for getting the rate 75% population of the whole province utilized directly the fresh water in the tap, reducing the rate of water loss caused by water meters and the leakage under 10% in 2010. (the ratios of leakage of Vietnam is 25-30%). Presently, the households using tap-water are over 65,000, the length of old water-pipes needed to be replaced in 2006 is 16km.

+The company has established a process and strictly controlled the water treatment process in accordance with ISO 9001:2000. Applying step by step the modern technology and mobilization for metering and analyzing water. The plants in the regions that its water supply is in the threat of high pollution, the company has utilized the filter active coal and Ultra Violet and Javel water for the small

plants. The water production process is strictly controlled (pump raw water supply, treat in the deposit tank, treat in the filter-bed...)

- + Establishing the locating map for the customer's water meter. The experts guided as follow:
 - Creating the monitor form for water meters of households.
 - Establishing the locating map of water meters for water officers read and check easily.
 - Taking note the water clock rating and sending invoice to customers, investigating the leakage of water meters.

Many areas in city have been applied the method of anti leakage by Japanese experts, the leakage is under 6% (as same as the leakage of Yokohama city (Japan)).

- + The behavior's employees of company is changed when contacting with customers.
- + Japanese experts have analyzed the water quality of company in Japan. Water will be able to drink directly in tap. The company will improve the water supply system to become the first city of Vietnam in which her citizen can drink directly drinking water in tap in the near future.

In 2009, the company will celebrate the 100-year anniversary of the first Vietnam plant of water treatment inaugurated.

V.CONCLUSION

Supplying drinking water and using clean water sustainably, except the capital for equipment and infrastructure, the exchanging experts and technical officers is very important to upgrade the ability of staff of company, it is the focal point to help company in sustainable development during the progress of economic development of Vietnam and international integration. It is time for us to consider that help in nominating experts is as important as the capital loan incentive before and expand the community activities is very important to help us develop sustainably for long time. We would like to share this issue to the drinking water production organization of Vietnam and South East Asia.

ACKOWLEGDEMENT

The author gratefully acknowledge the contribution of Hue City Company of Water Supply providing material for my this paper. Special appreciation is also due to Mr. Truong Cong Nam (Director of Company) and his company staff for guidance during the study.

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