

International Cooperation for Water Utility Regeneration in the Kingdom of Cambodia

In this section, we hear from Yamamoto Keiko, a former Senior Advisor of the Japan International Cooperation Agency (JICA), and Yayama Masashi, a former JICA expert, about their experiences with the international cooperation projects aimed at revitalizing Cambodia's water utility system. This initiative was prompted by the severe deterioration caused by the civil war.

(Text: Morohashi Kumiko)

Right: An example of a successfully rehabilitated water treatment facility in Phnom Penh completed through a Japanese international cooperation project



The prolonged civil war in Cambodia, which lasted until the early 1990s, left the water supply facilities destroyed and neglected, which led to severe deterioration. As a result, the water supply struggled to keep pace with the population growth, leading to an increase in the number of those without access to clean water. Furthermore, the aging water infrastructure had worsened to the extent that water quality no longer met the guideline values set by the World Health Organization (WHO). JICA provided support in creating a master plan for the development of the water supply infrastructure in the capital city, Phnom Penh, starting in 1993. Building upon this plan, from 1994 to 2003, JICA engaged in international cooperation aimed at facility development and human resource development in support of the Phnom Penh Water Supply Authority, responsible for the water supply services in Phnom Penh. Yamamoto, who was involved as a facility development and human resource development, reflects on that time.

“Safe water, produced at the renovated Phum Prek Water Treatment Plant as part of facility improvement

efforts, was given priority for distribution to impoverished areas within Phnom Penh. This initiative significantly improved water supply conditions for the underprivileged population. The rapid and remarkable enhancement of Phnom Penh's water supply services over a brief span of 10 years can be attributed, in part, to the great capabilities of the Cambodian workforce. It was indeed fortunate that individuals with a strong will to develop Phnom Penh, even in the post-civil war era, united in the water supply project, which was led by His Excellency Ek Sonn Chan who was the leader of PPWSA.”

Development of the water supply project, later hailed as the “Miracle of Phnom Penh,” expanded to cover the entire Cambodia and continues to receive ongoing support. It is noteworthy that Japan, along with JICA, has maintained a deep and ongoing involve-



Photo from around 1993 of the neglected filtration pond at water treatment plant.



Untreated water (left) and purified water (right). Phnom Penh now enjoys 24-hour access to safe water.



His Excellency Ek Sonn Chan (center), Secretary of State, Ministry of Industry and Handicraft at the time, with members of the Project for Strengthening Administrative Capacity of Urban Water Supply in Cambodia (Yayama is third from left)



The monitoring room at the Phum Prek Water Treatment Plant in Phnom Penh, where the system is monitored around the clock.




The future challenge is that there are still many areas in which water management is not yet well established.

ment, with Kitakyushu City also playing a significant role. Yayama, a former JICA expert who worked at the Kitakyushu City Water and Sewage Bureau at the time, spoke about their ongoing efforts in Cambodia.

“Kitakyushu City began dispatching personnel to Cambodia’s water supply project in 1999, emphasizing the importance of leak prevention technology and preventing water leakage. The non-revenue water rate, primarily indicating the percentage of uncollected fees due to water leakage, was as high as 72% at the outset of the support. However, by 2010, it had decreased significantly to just 6%,” explains Yayama. “Subsequently, JICA and Kitakyushu City, through long-term technical cooperation, have built a strong relationship of trust with Cambodia and continue to be involved in many support projects from Japan. Efforts have now been expanded from urban areas to provincial cities. We implemented the Project for Strengthening Administrative Capacity of Urban Water Supply in Cambodia until March 2023, aiming to establish a framework where the central government can oversee and manage water utilities nationwide from the perspective of water supply administration.”

Unlike Japan, where water supplies are administratively managed nationwide, Cambodia’s provincial cities are characterized by a prevalence of privately-owned water supply operators. Under the above-referenced project, we are progressing towards the broad and stable supply of safe water by expanding the network of water supply. This is achieved through the establishment of a framework where the supervising agency oversees individual privately-owned water supply operators.

“The revitalization of Cambodia’s water utility system is also featured as a success story for the United Nations’ official website under the SDGs¹. The significance of Japan’s international contribution to solving global challenges is immensely important. We hope

that the continued development of Japan’s international cooperation in the Cambodian water supply project can greatly contribute to the deepening of friendship between the two countries,” comments Yayama. 

1. One of the 17 goals established by the United Nations as Sustainable Development Goals (SDGs) is “Goal 6: Ensure availability and sustainable management of water and sanitation for all,” and the project is introduced as a successful example of this.
<https://sdgs.un.org/partnerships>

Reference

Examples of JICA's International Cooperation Projects Concerning Safe Water in Cambodia

- **The Project for Expansion of Phum Prek Water Treatment Plant**
Term of cooperation: May 2001 (signing of exchange of notes) to October 2003
Outline: Support was provided to rehabilitate and expand the capacity of the severely deteriorated Phum Prek Water Treatment Plant, aiming to improve the degraded water supply conditions caused by the civil war. This assistance encompassed securing an adequate water supply to meet population growth demands and enhancing water quality to meet the World Health Organization (WHO) guideline values. As a result of this support, safe water is prioritized for distribution to impoverished areas, leading to an improvement in water supply conditions for disadvantaged populations.
- **The Project on Capacity Building for Water Supply System in Cambodia (Phase 1)**
Term of cooperation: October 2003 to October 2006
Outline: With support primarily focused on the construction of facilities, provided by Japan and others, Phnom Penh Water Supply Authority (PPWSA) has successfully expanded its water supply capacity. However, given the urgent need for developing PPWSA personnel to ensure the effective management of the new facilities, technical knowledge transfer was carried out to enhance operational and maintenance capacity of water supply facilities. This contributed to the expansion of access to safe water in urban areas. Following that, Phase 2 (2007-2012) aimed to extend the outcomes of the project nationwide, and Phase 3 (2012-2018) was implemented with the purpose of enhancing the management of the national public water supply utilities.
- **The Project for Strengthening Administrative Capacity of Urban Water Supply in Cambodia**
Term of cooperation: July 2018 to March 2023
Outline: While conditions for water supply in urban areas had improved, the water supply infrastructure in provincial cities struggled to keep up with rapid urbanization. This cooperation project extended support to the General Department of Potable Water Service, the Ministry of Industry, Science, Technology, and Innovation, overseeing the water supply sector. The focus was on strengthening the organizational structure to handle a wide range of tasks and enhancing the capacity for regulating and supervising private water service providers. These efforts aimed to improve the capabilities required to expand the provision of safe water nationwide.

Reference websites

<https://www.jica.go.jp/oda/project/0100500/index.html>
<https://www.jica.go.jp/oda/project/0601334/index.html>
<https://www.jica.go.jp/oda/project/1700174/index.html>