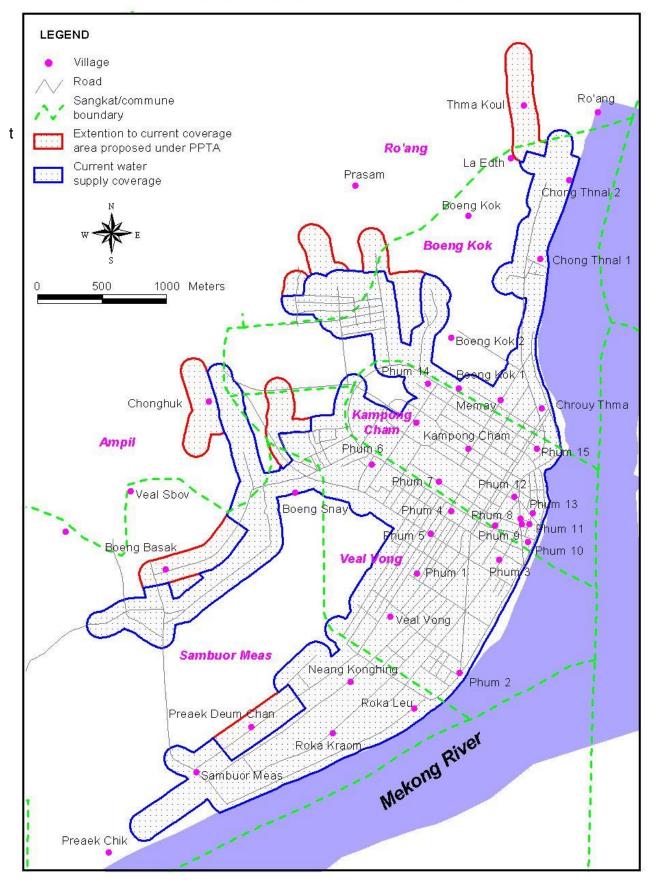
September 2014

CAM: Urban Water Supply Project – Kampong Cham Subproject

Prepared by the Ministry of Industry and Handicraft for the Asian Development Bank.

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CURRENT AND PROPOSED WATER SUPPLY COVERAGE OF KAMPONG CHAM PROVINCE



ACRONYMS AND ABBREVIATIONS

ADB APs	- -	Asian Development Bank Affected Persons
DPWS	-	Department of Potable Water Supply
EA	-	Executing Agency
HDPE	-	High-density polyethylene
JICA	-	Japan International Cooperation Agency
para	-	paragraph
PIACs	-	Project Implementation Assistance Consultants
PIB	-	Project Information Brochure
PIU	-	Project Implementation Unit
PMU	-	Project Management Unit
Project	-	Urban Water Supply Project
PSMO	-	PMU Safeguards Management Officer
RGC	-	Royal Government of Cambodia
ROW	-	Right-of-Way
UWSP	-	Urban Water Supply Project

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I. INTRODUCTION

A. Overview

1. The Urban Water Supply Project (UWSP, or the Project) at Kampong Cham City, in Kampong Cham Province, is among the nine (9) subprojects being proposed for the improvement and expansion of urban water supply services of public waterworks in selected provincial towns in Cambodia¹. Commissioned in 1942, the existing water supply system was rehabilitated in 2006 through the Asian Development Bank's (ADB) Provincial Towns Improvement Project. The system has two stations that occupy a total area of 8,000 m²: (i) 6,000 m² for Station 1 at Village 4 in Kampong Cham Commune; and, (ii) 2,000 m² for Station 2 at Village 7 in *Sangkat* Kaup. The Waterworks in Kampong Cham owns all the land occupied by its present water distribution system.

B. Current Status

2. The water distribution system operates 24 hours daily with water extracted by two wells that are 15 m underground. In 2012, the two wells had a combined production of $2,205,000 \text{ m}^3$, which was distributed to consumers through the 81,847-m pipe network with diameters ranging from 63 mm – 400 mm. The $6,000 \text{ m}^2$ Station 1 site accommodates six modest concrete structures that house the: (a) generator; (b) workshop; (c) laboratory; (d) chlorination system; (e) administration; and, (f) operation (i.e. accounting, billing and collection). The 2,000-m² Station 2 site houses the buildings for a generator, chlorination system, and extraction pump.

3. Four *sangkats* and two communes² are currently served by the water distribution system. These are: (i) *Sangkat* Boeng Kok; (ii) *Sangkat* Kompong Cham; (iii) *Sangkat* Vielvong; (iv) *Sangkat* Sombuormeas; (v) Koh Roka Commune; and (vi) Ampil Commune. These areas have a combined population of 63,865 as of 2012, growing annually by 0.05%. Some ethnic minority Vietnamese live in Kampong Cham but their population in the project areas is undetermined.

C. Rationale for Due Diligence

4. The waterworks in Kampong Cham is among four UWSP subprojects required to have a full feasibility study. There are nine (9) infrastructure components proposed for the subproject. Each component was carefully reviewed in terms of its Involuntary Resettlement (IR) and Indigenous Peoples' (IP) impacts. Subprojects with involuntary resettlement impacts require the preparation of a Land Acquisition and Resettlement Plan (LARP), consistent with the requirements of ADB's 2009 Safeguard Policy Statement (SPS), and the Bank's OM Section F1/OP (January 2010). Due Diligence activities, including field validation, confirmed that the subproject does not trigger the involuntary resettlement (IR) safeguard, as it does not entail any land acquisition. Likewise, it does not require preparation of an Indigenous Peoples Development Plan, as it does not trigger ADB's Indigenous Peoples safeguard. The subproject has no adverse impacts on IPs or ethnic minorities, since all the residents are well-integrated in the mainstream population.

II. PROPOSED SUBPROJECT INVESTMENT

5. The proposed investment in Kampong Cham UWSP consists of the following infrastructure components³:

(a) Drilling of 2 new boreholes to replace wells 1 and 2, with new submersible pumps (capacities to be refined but no more than capacity of system). These include provision of casing, screen, pump testing, pump controls, building & power connection.

¹ The other provincial towns are Kampong Thom, Kampot, Sihanoukville, Pursat, Siem Reap, Stoung, Svay Rieng, and Stung Treng.

² Distinction between *Sangkat* and commune is defined by their geographic location; the former is used in urban areas and the latter is for rural areas.

³ The list of proposed infrastructure is based on Version 14 prepared by the PPTA Consultants.

- (b) Addition of 3 lengths of 100 mm diameter pipes (1,420 m, 1,000 m, 885 m) and one length of 300 mm diameter pipe (1,660 m) to run parallel to existing pipes.
- Addition of 5 lengths of 110 mm diameter pipe (2,000 m, 1,200 m, 1,500 m, 350 m, 340 m) and 5 lengths of 63 mm pipe (900 m, 850 m, 380 m, 500 m, 1,090 m) for extensions in the current system.
- (d) Replacement of current gas chlorination system.
- (e) Provision of gate valves and bulk meters for 5 zones. The sizes required are 1 x 315 mm diameter, 2 x 200 mm diameter, 1 x 150 mm diameter, and 1 x 100 mm diameter.
- (f) Construction of 2nd floors for the existing office and laboratory buildings.
- (g) Provision of three new transformers.
- (h) New 100 m. deep borehole for the higher end of the town with submersible pump, wellhead, controls, pump building, power supply, fencing, and rising main to the existing elevated reservoir.
- (i) Rehabilitation of the existing elevated reservoir and provision of connection to the water supply network.

III. APPROACH TO DUE DILIGENCE

6. A full feasibility study has been prepared for the Kampong Cham UWSP subproject, with nine (9) infrastructure components provided for technical improvements and expansion of waterworks services. The first due diligence activity involved the review of (i) documents obtained from the Department of Potable Water Supply (DPWS); and, (ii) PPTA progress reports and inception report. Chapter 3 of the Inception Report⁴ contained relevant information on the subproject, such as: (i) current status, subproject priorities agreed between the Executing Agency (EA) and ADB, review of Japan International Cooperation Agency's (JICA) current projects and future project funding relevant to water services, site visits and initial public consultation; (ii) sector analysis; (iii) environmental and social safeguards screening; and, (iv) subproject prioritization. The review also referred to the March 2013 Progress Report and the Site Visit Report (22nd April – 2nd May 2013) prepared by the PPTA Water Engineering Consultants. Another due diligence activity involved confirmation with water distribution system management of their planned investments and validation by PPTA Safeguards Consultants⁵ of the investment locations on 3rd of June.

7. PPTA Consultants in charge of water supply also verified the space requirements of each proposed infrastructure component in Kampong Cham. Four (4) of the infrastructure components shall be undertaken in the water system's existing sites, and five (5) shall be established in new sites. Two of these five shall be undertaken in the distribution area where pipes will be buried in existing road right-of-way (ROW), while three of the five shall be located in the proposed Station 3 of the water distribution system.

8. Both primary and secondary information gathered from the field were recorded in the subproject information sheet.

IV. FINDINGS OF THE DUE DILIGENCE

9. Kampong Cham waterworks management confirmed that: (i) four infrastructure components shall be constructed on existing waterworks sites; (ii) two shall be undertaken in the distribution networks; and, (iii) three shall be located in the proposed Station 3. These are described further below.

⁴ This refers to the final version of 20 May 2013.

⁵ The team was composed of Safeguards Specialists, namely: Dr. Timothy Whitington, Angelito N. Corpuz, Mel Sophanna and Sour Chheang You.

A. Infrastructure in Existing Sites

10. Proposed infrastructure components in the existing sites consist of (i) two boreholes for new wells as replacements for well no. 1 and well no. 2; (ii) replacement of the current gas chlorination system; (iii) provision of gate valves and bulk meters for zoning; and, (iv) construction of 2nd floors for the existing office and laboratory buildings (para. 5 [a], [d], [e] and [f]). Said infrastructure shall be located inside Station 1 and Station 2, which are enclosed by concrete fences; therefore, there will be no involuntary resettlement and land acquisition. Similarly, the proposed infrastructure will not disrupt peoples' access to common property resources or public amenities.

B. Infrastructure in the Distribution Networks

11. The first batch of infrastructure in the distribution networks consists of (i) an additional 3 lengths of High-density polyethylene (HDPE) pipes with 100 mm diameter; (ii) one length with 300 mm diameter; and, (iii) additional 5 lengths with 110 mm diameter – all of which have a combined length of 10,355 m. (para. 5 [b]). Constituting the second batch of investments are 5 lengths with 63 mm diameter pipes with a total length of 3,720 m (para. 5[c]). The pipes shall be installed on the edge of road shoulders or easements, which are parts of existing ROWs, and will only need very narrow working widths for the trenches; specifically, 0.4 m for pipes with 63 mm and 110 mm diameters, and 0.6 m for pipes with 300 mm diameter. The pipes with 63 mm diameter will be buried 0.6 m below the ground, and pipes with 110 mm and 300 mm diameters will be buried 1.2 m below the land surface.

12. Each road shoulder has an average width of 1.5 m, and residents have not encroached on the easements on either side of the road. Given the working widths, land acquisition is not required because the road shoulders and easements are wide enough to accommodate the digging of the trenches (see picture below) and the existing ROWs are government properties managed by the Ministry of Public Works and Transportation. There will be no physical or economic displacement, nor will there be disruptions of access to common properties and public amenities. Civil works contracts will require the contractor to restore the ROW land to its original condition after installation of pipes is completed.



easements for the purpose.

C. Infrastructure in the Proposed Station 3

13. The proposed Station 3 shall be located in a vacant lot in Village 7 of *Sangkat* Kampong Cham. The lot has a total area of 726 m² and is enclosed by concrete fences with a height of 7 ft. or less. An idle elevated reservoir is located on the site, and the ground is covered with thick grasses and shrubs. Investments in this proposed location consist of (i) provision of a new transformer; (ii) provision of a 100 m deep borehole for the new submersible pump complete with wellhead, controls, pump building, power supply, fencing, and rising main to existing elevated reservoir; and, (iii) rehabilitation of the existing elevated reservoir and connection to the water supply network (para. 5 [g], [h] and [i]). The property is formerly owned by the provincial office of the Ministry of Education and was transferred to

Kampong Cham Waterworks on 3rd May 2013 by way of an Agreement on Shifting Property (See **Attachment 1)**. The land title is currently being processed at the Ministry of Land Management, Urban Planning and Construction in Phnom Penh.

14. Land acquisition for the proposed Station 3 has been completed with the official turn-over of the site. Development of the site, which is fenced in and gated, will not entail any physical or economic displacement, nor will there be disruption of access to common property resources and public amenities. If any unanticipated social impacts become apparent during project implementation, (i) the EA will assess the significance of such impacts, (ii) evaluate the options available to address them; (iii) prepare the documents in accordance with ADB's SPS.

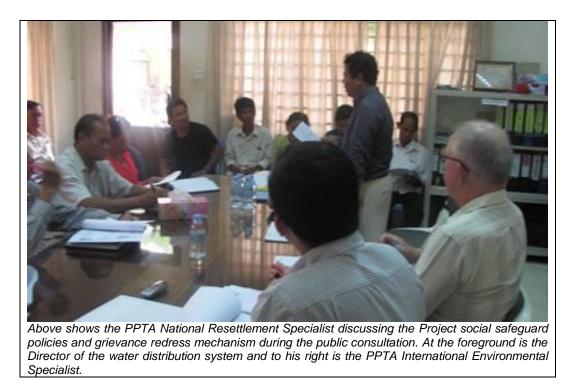


The above photo shows a portion of the 726-m² vacant lot in Village 7 that is proposed as the site for Station 3 of the water system. The concrete fence that encloses the property is very visible and the elevated water reservoir, partly hidden by tree, is seen in the background. The man on top of the concrete structure is the PPTA International Environmental Specialist.

V. PROJECT DISCLOSURE AND CONSULTATION

15. Led by the Director of Kampong Cham Waterworks, subproject disclosure and public consultation with people residing along the service routes was conducted on 3rd of June 2013 to inform about the project, with assistance from PPTA consultants. Disclosure and consultation was conducted in compliance with the provision of the *Law on Expropriation of 2009* of the Royal Government of Cambodia (RGC) and ADB's *Public Communication Policy (2011)* and *Accountability Mechanism Policy (2012)*. A total of 18 participants (13 men and five (5) women) attended and actively participated in said public consultation, which was held in the meeting room of Station 1's administration building (refer to Attendance Sheet in **Attachment 2**). Participants were given the Project Information Brochure (PIB) written in Khmer (refer to the English version in **Attachment 3**).

16. Participants did not express any concerns relating to social safeguards. Instead, the discussions were focused on when construction activities shall commence and on which villages will be covered by extension of the water distribution system. Discussions during the consultation indicate that residents look forward to benefitting from connections to potable water. Before the public meeting was adjourned, each participant was given extra copies of the PIB for distribution to other residents in their villages.



17. Another public meeting will be scheduled during project implementation to sustain peoples' awareness of the subproject. The orientation will be conducted by the Project Management Unit (PMU), as defined in para. 18.

VI. IMPLEMENTATION ARRANGEMENT

A. Institutional Arrangement

18. The Department of Potable Water Supply (DPWS), under the Ministry of Industry and Handicrafts (MIH), is the Project EA. It will establish the Project Management Unit (PMU) to assume overall management and supervision functions of UWSP. The PMU will hire the services of the Project Implementation Assistance Consultants (PIACs) in accordance with RGC's *Standard Operating Procedures* (updated May 2012). The PMU will be supported by staff from MIH and will include one (1) PMU Safeguards Management Officer⁶ (PSMO) who will be assigned on a full time basis to monitor social safeguards compliance through his/her provincial counterpart. At the subproject level, the management of Kampong Cham Waterworks will establish the Project Implementation Unit (PIU) to work closely with the PMU on social safeguards issues and monitoring. One of the PIU personnel will be appointed as counterpart of the PSMO. The PMU, with assistance from PIACs, will submit quarterly Project progress reports to the EA and ADB. Said progress reports will include discussions on social safeguards monitoring activities and findings.

⁶ The PSMO will cover both Environmental and Social Safeguards for the Project.

Attachment 1

Kingdom of Cambodia Nation Religion King

Ministry of Industry, Mine and Energy Department of Industry, Mine and Energy Kampong Cham Province Number: 14 ឱរថ.កិច

Kampong Cham, Date 03 May 2013

To: His Excellency Kampong Cham Provincial Governor

Subject: Request for the Land with Elevated Tank on the South of Provincial Pedagogy School.

As mentioned in the above referenced subject, I would like to inform His Excellency Provincial Governor to allow the above location to be occupied and managed by Water Supply Unit of Kampong Cham to build the third Water Supply Station under ADB Project will be implementing in 2015-16 to serve the potable water to people in the Northeast part of the City such as (Village number 6, Chunghuk and Boeng Snay Villages)

Therefore, please His Excellency Provincial Governor to kindly provide this land as requested in the above subject.

Kindly accept the assurance of our highest consideration and personal esteem.

N<u>o</u>: 2622 ㎡/ୱ Seen and Approved Kampong Cham, Date 03 May 2013 Provincial Governor Director of Department of Industry, Mines and Energy Kampong Cham

Suon Dy

Hun Neng

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Attendant List of Environmental Public Consultation Province: Date:....

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Attachment 3

KAMPONG CHAM URBAN WATER SUPPLY AND SANITATION PROJECT

(Project Information Brochure)

Note: The Project is now renamed the Urban Water Supply Project. The Executing Agency is now the Ministry of Industry and Handicrafts (MIH)

ACCRONYMS AND ABBREVIATIONS

ADB - Asian Development E	Bank
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- Department of Potable Water Supply DPWS -
- Ministry of Industry, Mines and Energy MIME -
- -Royal Government of Cambodia RGC
- Water Treatment Plant WTP

UWSASP -

Urban Water Supply and Sanitation Project

Good day to everybody. Our office highly appreciates your meaningful participation in this public meeting. The Department of Potable Water Supply (DPWS) sent us to consult with you on the proposed government project here in your place.





1. What is the objective of consultation?

The objective of the DPWS, under the Ministry of Industry, Mines and Energy (MIME), is to disclose to you the proposed Project of the Royal Government of Cambodia (RGC) for the improvement of water supply services in your area. The RGC shall request the Asian Development Bank (ADB) for funding the Project. This consultation complies with the regulation of RGC and the Public Communication Policy (2011) of ADB.





2. What is the Project?

The Project is known as Urban Water Supply and Sanitation Project (UWSASP) which shall be located in Cambodia's 9 provinces, including Kampong Cham. The UWSASP has four components, such as: (a) provision of or improvement of water treatments plants, (b) improvement and increased coverage of water distribution systems, (c) rehabilitation of existing pumping stations and (d) strengthening the institutional capacity and regulatory system of MIME. The impact of the Project will be expanded access to and safe water services for the sustainable supply urban population in Cambodia that included the people of Kampong Cham.





3. What specific civil works are involved here in Kampong Cham?

Under the UWSASP, the civil works involved are: (a) drilling of new boreholes to replace wells 1 and 2 with new submersible pumps; (b) add 3 lengths of diameter pipe (1,420m, 1,000m, 885m) and one length of 300mm diameter of 1,660m to run in parallel with existing pipe; (c) add 5 lengths of 110mm diameter pipe (2,000m, 1,200m, 1,500m, 350m, 340m) and 5 lengths of 63mm pipe (900m, 850m, 380m, 500m, 1090m) for extensions to current system; (d) replacement of current gas chlorination system; (e) provision of gate valves and bulk meters for 5 zones - sizes required are 1 x 315 mm dia, 2 x 200 mm dia, 1 x 150 mm dia, 1 x 100 mm dia.; (f) construction of second floors for existing office and laboratory buildings; (g) provision of 3 new transformers; (h) new 100m deep borehole for higher end of town with submersible pump, wellhead, controls, pump building, power supply, fencing, rising main to existing elevated reservoir; and (i) rehabilitation of existing elevated reservoir and provide connection into the network.





4. Will there be land acquisition for the proposed civil works in our village?

Permanent acquisition of private lands will not happen in any infrastructure components of the subproject since the pipes will be buried on the road shoulders or easements which are government properties. Likewise, no structures or business shop as well as access to common properties and public amenities will be temporarily affected.





5. What if public properties or common resources shall be affected?

Public properties or common resources are subject to rehabilitation and restoration. However, it should be noted that not any of this kind shall be affected during the implementation of the subproject.





6. What benefit can the Project provide to the people in our village?

Aside from expanded access to sustainable supply of safe potable water, the Project can provide employment to the people in your village during construction. Overall, the Project will provide a better environment in your locality and improved infrastructure for healthy living through safe potable water.





Which office should we communicate in case we have other questions or suggestions?

You can send your written communications to any of the following offices:

 Project Implementation Unit Urban Water Supply and Sanitation Project Department of Potable Water Supply
______ St, Kampong Cham

 Project Management Unit Urban Water Supply and Sanitation Project Department of Potable Water Supply
_____St, Phnom Penh

Telephone: ______Attention: Mr./Ms. _____





8. Can also ADB be of help in the resolution of complaint?

Yes, the AHs/ APs can also ask for assistance from ADB's responsible Project Officer, consistent with the provision of the Bonk's *Accountability Mechanism* (2012). They can submit their concerns through the ADB Resident Mission in Phnom Penh for transmittal to the Bank's headquarters in the Philippines. The Accountability Mechanism has two functions, i.e. the problem solving function that will be led by the Special Project Facilitator, and the compliance review function that will be handled by the Compliance Review Panel.

