

スモール・タウン水道事業向け高濁度原水対応型浄水装置の普及・実証事業 株式会社トーケミ(大阪府)



ラオス国の開発ニーズ

- 安全な水の安定的供給と水道サービスの地域格差の是正
- 良質な地下水源が不足しつつある中、雨天時に超高濁度となる表流水の安定的かつ安価な浄化

普及・実証事業の内容

- ボリカムサイ県パクサン地区に高濁度対応型浄水装置を導入し、現地適合性を実証(水質モニタリングなど)
- 水道公社職員への浄水装置運転・管理にかかる技術移転
- ラオスにおける普及展開計画の策定

提案企業の技術・製品



高濁度原水対応型浄水装置
= 繊維ろ過(アクティファイバー)
+ 砂ろ過システム

- 小規模かつ高濁度対応の繊維ろ過技術(特許)
- 凝集沈殿施設と比べ造水コストが1/3程度に縮減
- 設置スペースがコンパクトで現場設置工期短縮

事業概要

相手国実施機関:

ボリカムサイ県公共事業運輸局
/ボリカムサイ県水道公社

事業期間: 2015年6月~2018年5月

事業サイト: ボリカムサイ県(パクサン地区)

ラオス国側に見込まれる成果

- 高濁度表流水の安定的浄化
- ボリカムサイ県パクサン地区の水道普及率向上
- 従来法(凝集沈殿法)に比べランニングコスト低減
- 水道公社職員の浄水にかかる知識向上

日本企業側の成果

現状

- 日本国内における徐鉄、徐マンガろ過材の供給シェア50%
- 日本液体清澄化技術工業会幹事

今後

- ラオス国の公共事業・民間開発/工業団地等への展開
- 現地製造・販売・保守管理の拠点化
- 長期包括委託事業の受託



Verification Survey with the Private Sector for Disseminating Japanese technologies of Water Purification System for Highly Turbid Water for Use in Small Town Water Supply

TOHKEMY CORPORATION, Osaka, Japan

Concerned Development Issues in LAO

- There are some problems such as Regional disparities in water service and Stable supply of safe water.
- It is required to purify surface water with cost savings and supply stably, even though the surface water is remarkably high turbid under rainy weather, under the conditions of good-quality groundwater sources are going to be in short.

Implemented Activities in the Survey

- By introducing a high-turbid water purifying system in Paksan area, Bolikhamxay, the JICA Survey Team will verify local adaptability of it's system.
- Transfer the technology of the operation and maintenance of the "The water purifying system" to staff of NPSE-Bolikhamxay.
- Formulate a dissemination plan after the "Survey".

Proposed Products/Technologies



Water Purification System for Highiy Turbid Water =Fiber filters (Actifiber) and Sand filtration System.

- Technology of Fiber filters (patent)
- Utility cost can be reduced by around a one-third in comparison with coagulation-sedimentation system .
- Construction period and space can be shortened and smaller.

Survey Overview

Name of Counterpart:
 Department of Public Works and Transport of Bolikhamxay Province/
 NPSE-Bolikhamxay
 Survey duration:From June, 2015 to May, 2018 (3 years)
 Survey Area:Paksan District, Bolikhamxay Province in LAO

Impact on the Concerned Development Issues in LAO

- Established stable purification system for highly turbid water.
- The population served by water supply will increase.
- Running cost decreases in comparison with a conventional method.

Outputs and Outcomes of the Survey

- The installed equipment supplies 1,000m³ of drinkable water per day.
- Even with turbidity of 4,000 NTU, the quality of the purified water satisfied the Lao PDR water quality standards (5 NTU or less) ,and it was possible to verify that the water purification system was well suited to local conditions.
- After the Survey, challenge to the public water supply project, private urban development business and industrial water business in Lao.