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|--|---|-----------------------------|---------------------------------|------|
| Supporting utility                                   | Chiba Prefectural Public Enterprises Bureau (CPPEB)   |                             | Case No.                        | 5    |
| About recipient utility (* data in the capital Dili) |   |                             | Data from                       | 2017 |
| Recipient utility                                    | National Directorate for Water Service (DNSA), Democratic Republic of Timor-Leste   |                             |                                 |      |
| Cooperation year                                     | 2012 -  |                             |                                 |      |
| Service area   | Dili (capital) and 12 other cities  |                             |                                 |      |
| Service population                                   | Unknown   | Service coverage in Dili    | 46.6% (2015)                    |      |
| Water distribution*                                  | 41,360 m³/d   | Maximum water distribution* | 48,880 m³/d (facility capacity) |      |
| Water consumption per capita*                        | 120 L/person/d  | NRW*                        | 98.8% <sup>1</sup>              |      |
| Water source*  | Rivers and wells  | Pipe length*                | 387.7 km                        |      |
| No. of WTP <sup>2</sup> *                            | 4 (rapid filtration) and 28 (wells)   | No. of Employees            | 185 (2015)                      |      |
| Water treatment*                                     | Coagulation + Sedimentation + Rapid filtration + Chlorine disinfection  |                             |                                 |      |
| Water rates*   | Residential: 0.2 USD/m³ for up to 14 m³ and 0.4 USD/m³ for above 14 m³ (water use charged only in limited areas of the capital Dili)  |                             |                                 |      |
| About technical cooperation to DNSA                  |   |                             |                                 |      |
| Background   | Timor-Leste became independent from Indonesia in 2002. The conflict for independence caused destruction to water facilities such as water treatment plants. Further, the Indonesian engineers who had operated the facilities went back to Indonesia post-conflict. After the independence, therefore, the government of Timor-Leste made the development of water supply system a top priority in both structural and nonstructural aspects, and requested assistance from Japanese government. Upon the request, the Japan International Cooperation Agency (JICA) asked the Chiba Prefectural Public Enterprises Bureau (CPPEB) to provide technical cooperation to the country. |                             |                                 |      |
| Cooperative scheme                                   | From April 2012 to July 2020, CPPEB have dispatched 29 engineers to Timor-Leste to help improve the country’s water supply. Of the 29 engineers, four people have been involved in a long-term dispatch program and 25 people in a short-term dispatch program.   |                             |                                 |      |

<sup>1</sup> The extremely high NRW rate is due to multiple factors including water theft, illegal connections, leakage from aging mains, and users' refusal to pay for the service, which make the rate collection highly difficult.

<sup>2</sup> WTP = Water Treatment Plant

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|--------------------------------|--|
|                                | <p>[Long-term dispatch programs and the number of staff dispatched]</p> <ul style="list-style-type: none"> <li>• <b>Apr 2012 - Apr 2015:</b> one advisor for water supply improvement</li> <li>• <b>Jul 2015 - Jul 2017:</b> one advisor for water supply improvement</li> <li>• <b>Aug 2017 - Aug 2019:</b> one advisor for water supply improvement</li> <li>• <b>Jul 2019 - Jul 2020:</b> one advisor for water supply improvement</li> </ul> <p>[Short term dispatch programs and the number of staff dispatched]</p> <ul style="list-style-type: none"> <li>• <b>May - Jun 2014:</b> two engineers for operation of water treatment plants</li> <li>• <b>Jan - Feb 2016:</b> one engineer for operation of water treatment plants, water quality management, and other management issues</li> <li>• <b>Feb - Mar 2017:</b> one engineer for leakage prevention</li> <li>• <b>Nov 2017 -:</b> two engineers for management planning</li> <li>• <b>Feb 2018:</b> five engineers for operation of water treatment plants and water quality management</li> <li>• <b>Jan - Feb 2019:</b> four engineers for operation of water treatment plants and water quality management</li> </ul> |
| DNSA's challenges              | <p>Timor-Leste government has set a goal of providing all residents with access to safe drinking water<sup>3</sup> by 2030 as well as achieving a 24/7 water supply in the urban areas of 12 districts by 2030. According to the Joint Monitoring Program (2015) of WHO/UNICEF, the average access to safe drinking water is 71.9% in the country and 95.2% in the urban areas. In most cases, however, their water supply is intermittent with running water available only a limited number of hours a day.</p>  |
| Technical cooperation provided | <p>CPPEB have provided the following technical assistance to improve Dili's water supply.</p> <ol style="list-style-type: none"> <li>1. Technical guidance on regular inspection and repair of water treatment facilities and related chemical injections in the capital Dili</li> <li>2. Technical guidance on the planning and construction of distribution network and leak surveys in the capital Dili.</li> <li>3. Advising and making suggestions for mitigation of DNSA's challenges in terms of organizational structure and rules and for improvement of the water supply system in Timor-Leste</li> </ol> <p>CPPEB contributed to achieving a 24/7 water supply in portions of the capital Dili, where the supply had been intermittent previously.</p>  |
| Future plans and prospects     | <p>Further international assistance will be needed so that the country can be more self-reliant in achieving 24/7 water supply in wider areas.</p>   |

<sup>3</sup> "Access to safe drinking water" is defined by WHO as having 20 liters per person per day of water available within one kilometer radius from the residence.

Photos



▲ CPPEB providing technical advice to local staff member



▲ Children in an area of improved water supply