



SAFE WATER SYSTEM FOR MAE DAED NOI SCHOOL, CHIANG MAI - THAILAND

Background: Like many countries in Asia, increasing population, economic, agricultural, and industrial expansion are the major causes of water quality degradation in various water sources. High loading of pollutants from human activities beyond the water resource carrying capacity have contributed to degradation of water quality in the country.

Surface water quality varies widely in the different regions in Thailand. The surface water quality of Thailand's major rivers, particularly in the areas receiving pollutants discharged from industrial, agricultural or populated regions are in very poor condition. Similarly, the coastal waters in the Inner Gulf and certain highly populated areas of the Outer Gulf of Thailand are in similar poor quality (AWF).



The Need: Mae Daed Noi School is located in Maechaem district, Chiang Mai province. It was established in 1977 by the villagers of Baan Maedaed Noi. A few years later the community handed over the school and the responsibility to the Thai Ministry of Education. Since then the school has been supported by the government. The Mae Daed Noi School provides accommodation to some of the schools' children who live in remote hill-tribe villages that are a great distance from the school. Most of the children belong to the Karen and Hmong ethnic minority groups. With the yearly increase in the number of students, the boarding facility soon became overcrowded and could not accommodate more children. It was also in a very bad condition and was not suitable for the children. A Childs Dream sought donor funding for the construction of a boarding house with a kitchen, toilets and water treatment system for the school and local community.



Existing unprotected contaminated water source. Below – Mae Daed Noi School



Beneficiaries: At least 134 live in students and staff
2000 litres of water per day

Completed: 2010

Solution: Water purification system
Hand-wash facilities

Deployment Partners: A Childs Dream
Asia Water Foundation

Water Treatment: SkyHydrant water purification unit
donated by Siemens Nederlands

Description: Existing drinking water source via rain water catchment from an elevated reservoir. Untreated water resulted in frequent sickness of the children causing disruption to class attendance.

Outcome: Due to the generosity of deployment partners and the donation of a SkyHydrant water treatment unit from Siemens Nederlands, there is increased school attendance due to benefits of potable water and hygiene education which is included in every safe water schools project.



The SkyJuice SkyTower completes the safe water system providing self closing taps, water troughs and hand wash station.



Operations and Maintenance is simple and manual, no chemicals or power needed to purify the water. Having the staff and pupils involved in the maintenance procedures ensures that that the system will be viable in the long term and builds capacity within the community



Photos courtesy Asia Water Foundation