



Treating China's wastewater: opportunities galore

Summary:

There are great opportunities for companies in treatment of difficult to treat wastewater in China. The country is facing large challenges in ensuring reliable water supply. Water is not distributed evenly over China's provinces. The dry North has to deal with shortages, while this is an important area for the national economy. Furthermore, the majority of the water sources is polluted, making it unfit for drinking or sometimes even touching. With the "war on pollution" and the Water Ten Plan, large steps have been taken to tackle these problems. Companies are feeling the heat of the new regulations; enforcement is stricter and fines are higher. This means that they will be looking for technological solutions to treat the water up to standards, providing great opportunities for Dutch companies specialized in treating (heavily) polluted wastewater.

Full message:

In the Netherlands, there is ample experience on advanced treatment of wastewater. The technologies and experience are lacking or sparse in China. However, the country is facing serious issues of water scarcity and pollution. When speaking of water treatment, the main opportunities for Dutch companies lie in treatment of industrial wastewater, which requires a different approach from municipal wastewater.

Scarcity drives wastewater treatment

China is facing great challenges when it comes to water supply. With only 7% of world's water resources and 20% of the world population to provide to, water scarce in large parts of the country. The largest part of the water available is used in agriculture (61%) followed by industries (24%) and household use (13%). Most of the water used is surface water, in the dry North groundwater can form up to 31% of the water supply. The national average is 18% groundwater. Groundwater tables have been falling rapidly, with about one meter every year. Shanghai has already been confronted with land subsidence due to dropping groundwater tables.

Eleven provinces in the North of China have been classified as a 'water scarce' province, which means that water shortages form a serious impediment to food production, economic development and natural functions. It is estimated that 510 million people live in these areas and that 45% of the GDP is generated in these provinces. This is an important economic region and water scarcity is forming a threat to further development.

Pollution of water bodies exacerbates the problem of water scarcity. Water in 14% of the most important river basins is heavily polluted, making it unfit for drinking, agriculture and use in industrial processes. Furthermore, half of the groundwater wells is that polluted, that it is not fit for human contact. The source of pollution is mostly agriculture and industries. Run-off of fertilizers and pesticides and discharges of wastewater from factories pollute the surface water, groundwater is polluted by infiltration of contaminated water. Water treatment of industrial wastewater is often not sufficient to comply with water quality standards, or completely absent.

Laws are growing teeth

There is a growing awareness among the Chinese population and government that something has to be done to solve these water problems. Where in the earlier days the focus was on supplying more water (by constructing the South to North Water Diversion), now the focus is on managing demand and pollution. The "three red lines" that are part of the Most Stringent Water Resources Management

System (MSWRMS) focus on capping the use of water, increasing efficiency in water use and combating pollution. Each of the red lines has goals to be reached in 2015, 2020 and 2030. Since the start of the MSWRMS in 2012, premier Li Keqiang had declared "war on pollution" and issued the Water Ten Plan. This Plan brings multiple policies together and divides tasks over the ministries, forcing them to work together in the process. Furthermore, large efforts are made to make the local policies and laws match the national policy, which should enhance enforcement. The government has announced to set aside 3.7 trillion yuan (about 500 billion euros) for the 'war on pollution', of which about 270 billion euros is meant for water. An additional 4 trillion yuan (545 billion euros) will be spent on improving water infrastructure for household water supply.

Industries feeling the heat

The Water Ten Plan warns several industries. Companies in the Yangtze Delta, Pearl River Delta and the region Beijing-Tianjin-Hebei should expect more attention for their emissions and discharges. Companies in paper and pulp, coking, textile and leather, pesticides, electroplating, dyes, petrochemical industry and sulfur and arsenic smelting should comply with the new standards by the end of 2016, otherwise the factories will be shut down. It can be expected that companies will be looking for technologies that can treat their wastewater up to standards. This is where there are great opportunities for Dutch companies. Chinese companies have enough experience in treating household wastewater, but for industrial wastewater a different approach is needed. This is where experience is lacking and China turns to foreign companies to provide high quality technology and experience.

Dutch companies may take advantage of this serious interest in foreign technology and the growing attention to water quality and treatment by introducing their expertise and technology to Chinese customers. The Dutch network of Business Support Offices, consulates and the embassy can provide the companies with information, tips and other support to make the expansion to China easier.

Further reading:

<http://chinawaterrisk.org/resources/analysis-reviews/key-water-policies-2015-2016/>

<http://chinawaterrisk.org/resources/analysis-reviews/the-war-on-water-pollution/>

<http://chinawaterrisk.org/big-picture/>

Global Water Partnership (2015) China's water resources management challenge: the 'three red lines'. Accessible at:

http://www.gwp.org/Global/ToolBox/Publications/Technical%20Focus%20Papers/TFPChina_2015.pdf

<http://www.zakendoeninchina.org>