



## Indonesia: Water Supply and Distribution Systems Industry

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### Summary

*This market research provides an updated overview of the 2002 market research for Indonesia Water Supply and Distribution Systems Industry. This market research highlights specific opportunities for U.S. exporters in water resources equipment sector.*

The Indonesian Statistics Institute (BPS) estimates the value of the water supply industry at \$440 million rupiahs in 2006 thus registering over 43% growth since 2003.

Indonesia currently has over 300 municipal owned water enterprises (PDAMs), comprised of 8 large-scale PDAMs (over 50,000 house connections) and 77 medium-scale PDAMs (10,000 to 50,000 house connections). The balance is made up of small-scale PDAMs serving fewer than 10,000 house connections.

Water tariffs generally do not cover operating and maintenance costs, and average loss of water to non revenue use is high. Many PDAMs are too small and inefficient to maintain controlling staff. Many do not have an asset management system and 30% have no accountant. There has been no significant asset investment over the past 10 years. Responsibility for water supply and sanitation rests with the regional governments, but new lending is blocked by PDAM and regional government loan arrears. Although PDAMs can increase water tariffs, local politicians often control tariffs for political ends, with PDAMs frequently used to finance local projects.

Jakarta and a number of other larger systems provide exceptions to municipal operation in the form of private sector concessionaires, PT Aetra Air Jakarta (Aetra) formerly PT. Thames and PT. PAM Lyonnaise Jaya (PALYJA). They each supply potable water and are responsible for all treatment, distribution, recording and billing.

The best sales prospects for U.S. products in water supply and distribution systems are valves, pumps and meters. Indonesia's water and industrial pumps market represents growing potential for U.S. exporters. U.S. firms generally lose their competitiveness in the market of pipes and fittings due to the price differences. The types of pipe currently in use in Indonesia are asbestos cement (AC) pipes, mild steel pipes, ductile iron pipes, cast iron pipes, Polyethylene (PE) pipes and PVC pipes.

The 2006 total domestic market for water and industrial pumps was \$862 million, with a total import of \$778 million, local production of \$213 million and exports of \$129 million. If the domestic and export markets remain stable, it is predicted that the growth of total domestic demand will increase by 10 to 15 percent annually over the next five years.

## Market Demand

Treatment and distribution of clean water in urban areas is the responsibility of about 318 water enterprises (PDAMs) under the ownership/jurisdiction of local government. In Jakarta, Batam and 20 other locations in Indonesia (BPP SPAM, 2005), concessions for water supply have been awarded to the private sector. Elsewhere, the role of the private sector in piped water is limited to that of supplier or contractor. The PDAMs supply water to customers through house connections (presently about 39% of the urban population). About 61% of the population receives water through informal distribution networks and various water vending operations. PDAM distribution in rural areas is estimated at 8%. Approximately 40.15 million people live in the urban areas served by the PDAMs. Based on 2005 data, only about 40% of the urban communities are served. The remaining 60% of the urban population, of which many are low-income, rely on other sources of water that includes self-provision and commercial on-selling.

## Market Data

The statistics are for pumps used for the water industry.

	(US DOLS MILLIONS)			
	2005	2006	2007 (Jan – May)	Gain/Loss Est. Avg. Annual Real Growth Next 5 years
Import	762,909	778,436	358,379	5 -10%
Local Production (*)	500,448	213,711	254,752	15%
Export	303,302	129,522	154,395	10 – 15%
Total Market	959,055	862,626	458,736	
Import from US	145,208	159,243	57,321	3 – 5%

Source: *Indonesian Statistics Institute (BPS)*

(\*) Estimates

## Best Prospects

The following products, with their corresponding Harmonized Systems codes, are expected to represent best sales prospects in the Indonesian market for U.S. exporters:

HS No.	Product Descriptions
8413501200	Water pumps with capacity $\leq 8,000\text{m}^3$ , electrically operated
8413501900	Other water pumps by electrically operated),
8413502000	Oth reciprocating positive displacement pumps not electrically operated
8413601200	Water pumps rotary positive with capacity $\leq 8,000$ MH by electrically operated
8413702100	Other water centrifugal pump speci design for submar use & by electrically operated
8413703000	Centrifugal pump not electrically operated
8413811900	Other pumps of electrically operated for elevators liquid
8413911000	Parts of pumps of subheading 8413.20.00
8413912000	Parts of pumps of subheading 8413.70.10
8413913000	Parts of centrifugal pumps
8413914900	Other pumps, electrically operated

## Key Suppliers

Various types of pumps were imported in 2006, with the import value reaching \$862 million. The U.S. was the main supplier, contributing 18 percent of the country's imports followed by Japan (17 percent), China (10 percent), Singapore (8.5 percent) and Germany (5 percent).

The following international brands are used in Indonesia: Allweiler, Asia, Calpeda, Caprari, Ebara, Hibon, KSB, Lowara, Sihi, Showfou, Southern Cross, Sterling, Sulzer, Torishima, and Tsurumi.

U.S. pump companies that are represented in Indonesia include Aurora, Byron Jackson, David Brown, Durco, Fairbank Morse, Goulds, Ingersoll-Dresser, ITT, Milton Roy, Mission, Myers, Peerless, Patterson, Pulsafeeder, Reddy Buffaloes, Ropar, Viking, Warren Rupp, Wilden, and Worthington.

## Prospective Buyers

Since the mid 1980s, the Indonesian government has undertaken public private partnerships (PPP) in the water supply sector on a small scale, such as for meter reading and bill collections, as well as maintenance work. The first PPP project was a BOT (Build, Operate and Transfer) in Serang Utara, West Java in 1993.

In 1997 the government took a bold initiative to privatize Jakarta water company PAM Jaya, which had been in the business for decades. PT PAM Jaya then entered into 25-year agreements with two private partners from Britain and France, which then established PT Aetra Air Jakarta (Aetra), formerly PT Thames Pam Jaya, and PAM Lyonnaise Jaya (PALYJA).

The aim of the cooperation agreements, involving the two foreign partners in the production and distribution of water, is to improve services to clients and expand operation areas to cover more consumers as well as to reduce the aggressive exploitation of groundwater. According to the deals, both of which went into effect in 1998, Aetra, a subsidiary of Britain's Thames Water, serves the eastern part of Jakarta, while PALYJA, a subsidiary of France's Lyonnaise des Eaux, serves the western part of the city. Both areas were formerly served by PAM Jaya.

To date, Aetra and PALYJA have invested Rp 552.6 billion and Rp 670 billion respectively to finance the installation of big and small water pipes to replace old leaking pipes, some of which were installed by the Dutch in the 1930s. Not only that, the investors also brought with them managerial and technical expertise in clean water management. By 2004, three million out of 8.7 million or 34 percent of Jakartans had access to clean water. This year, PALYJA says its services now cover 55 percent of the population compared to 32 percent coverage in 1998. The remaining, especially big users like hotels, shopping centers and high-rise office buildings, still rely on groundwater, which has resulted in seawater intrusion in some areas due to the overexploitation of groundwater.

Jakarta's water problems are very complex as they are intertwined with large investment required to build water plants, expand water pipes on one hand and the purchasing power of consumers on the other. The woes have been worsened by, for example, illegal pipe connections and harmful behavior, such as companies dumping untreated waste into the capital's waterways. The shrinking volume of raw water, which is mostly provided by areas in West Java, is another problem. Water operators have warned that unless the government finds new water sources, Jakarta could suffer a severe water shortage as early as 2010. Most rivers in Jakarta, from which raw water is sourced, are heavily polluted by various forms of waste. Thus water operators have to spend more money to treat water, the cost of which in the end must be borne by customers in the form of higher water rates. But the problems have not deterred water operators from improving their services. Over the past few years efforts by water utilities in Jakarta to improve services have been successful, with a significant increase in the number of customers served, quicker response to clients' complaints and more accurate meter reading.

Private tap water company, PT Adhya Tirta Batam in Duriangkang has begun its construction in June 2008 of a US\$6 million water processing system, which is expected to start operations in April 2009. According to one source from the company, the system will produce 500 liters of water per second, or equal to 40 million liters per day, in addition, the company's coverage in the city would increase by 40,000 houses. With the project's completion, Duriangkang would have a total supply of 1,500 liters per second. Based on the source, the company would employ the services of a French contractor for the project. The first part of the Duriangkang processing system was completed in August 2001 under a \$2.8 million investment, while the second, completed in October 2003, and required \$4.7 million. The Duriangkang water system currently serves 50 percent of Batam's clean water consumption. Adhya provides water for its 125,000 customers through seven water processing systems, in Baloi, Harapan, Ladi, Mukakuning, Nongsa, Piayu and Duriangkang. The seven systems have a combined capacity of 2,185 liters per second.

In Tangerang, the central government signed a memorandum of understanding last month (August 2008) with a private company investing Rp 520 billion in tap water provision for five districts in Tangerang regency. Singapore-based Acuatico will build a tap water installation plant to supply clean water for industries and residents living in Sepatan, Pasar Kemis, Cikupa, Balaraja and Jayanti districts. Acuatico is expected to provide 3,400 liters of water per second for households and 10,000 liters per second for industries. Acuatico director Fatah Topobroto said investment in the water production came solely from the company's own capital, not from state or regional budgets. Construction for the project consists of intake installations, a water treatment plant, pipelines and installation of meters in consumers' homes. Acuatico first entered Indonesia's tap water market in January 2007, acquiring 95 percent of the shares in PT Aetra Air Jakarta, formerly PT Thames PAM Jaya.

Pangkalpinang city government has guaranteed that tap water managed by the city corporation, PDAM, will be safe to drink by the end of 2008. The management of the PDAM optimistic that they can comply with the requirements of the 2005 government regulation that states all drinking water managed by a local government corporation should be safe to be drink by 2008. The corporation was renovating the waste management service and the pipelines so that the quality of the water distributed to the people would comply with the law. The project is held in cooperation with Singaporean Darco Corporation and consultants from the Bandung Institute of Technology. Dozens of kilometers of old pipeline is being replaced to prevent leakages, which could lead to poor water quality. The flow capacity will be increased by 300 liter per second so that it will reach 403 liter per second. It will be enough to serve 30,000 customers.

## Market Entry

According to Law No. 25/2007 concerning Investment, all foreign services provider should be in the form of limited liability company (PT). Establishment of the company should comply Law No. 40/2007 concerning Limited Liability Company (PT). Foreign entry is also determined by regulations set forth in the operational requirements.

All foreign workers should comply with Indonesian Employment Regulations. Temporary entry and stay is subject to Visa Requirement and related regulations. Foreign service providers are allowed in the form of joint venture with certain circumstances:

- In the form of Limited Liability Company
- Foreign providers can own capital share up to 49%

## Market Issues & Obstacles

The 2004 Law on Water Resources first opened the possibility of private investment in water provision, sparking protests from organizations arguing water provision should be in the hands of publicly controlled entities. In 2005, at least 17 organizations requested the Supreme Court perform a judicial review of the water resources law. The court refused the request in July of that same year.

## Trade Events

Konstruksi Indonesia 2008  
October 29 – 31, 2008  
Jakarta Convention Center Indonesia  
<http://www.pu.go.id>

Manufacturing Indonesia Series 2008  
December 3 -6, 2008  
Jakarta International Expo, Kemayoran  
<http://www.pamerindo.com>

Nusantara Water 2008  
December 17 – 19, 2008  
Jakarta Convention Center Indonesia  
E-mail: [nw2008@perpamsi.org](mailto:nw2008@perpamsi.org)  
Contact: Mr. Isnaldi M Dini, Cell phone no. +6281514680370

Indo Water Expo & Forum 2009  
June 17 – 19, 2009  
Jakarta Convention Center Indonesia  
<http://www.indowater.com>

## Resources & Contacts

Further information on resources and contacts for water supply and distribution systems and water resources equipment and services can be obtained from Ms. Aulia Rochaini via e-mail at [aulia.rochaini@mail.doc.gov](mailto:aulia.rochaini@mail.doc.gov)

## For More Information

The U.S. Commercial Service in Jakarta, Indonesia can be contacted via e-mail at: [aulia.rochaini@mail.doc.gov](mailto:aulia.rochaini@mail.doc.gov); Phone: 62 21 5262850; Fax: 62 21 5262855; or visit our website: <http://www.buyusa.gov/indonesia>

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