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Vatten Infrastructure is managed by Boswell Capital in Toronto and, through its network of advisors and affiliates, operates on a global scale. For additional information, please visit www.vatten.ca.

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Investing in Water Infrastructure Projects

Installment 2: Trinidad & Tobago

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This note, the second in our series on *Investing in Water Infrastructure Projects*, published by Vatten Infrastructure Inc., is to provide insight into the market for water infrastructure in Trinidad & Tobago.

Summary

Our organization has been following developments in the water and wastewater sectors in Trinidad & Tobago since 2007 and have determined that there will be investment opportunities on various levels in order for the country to meet its stated goal of obtaining the status of developed nation by 2020.

These opportunities are likely to include the delivery of a full range of services from design and engineering, management and construction, through to the implementation and operation of new technology in a broad range of infrastructure development programs. As the country considers how it will implement its ambitious plans, there will likely be numerous opportunities for private sector investment in these areas through public-private partnerships (PPPs), as an example. In fact, the government has been explicit about its interest and plans to use PPP structures and to this end has actively been engaging private sector participants. The local economy in recent years has been rather strong, largely as a result of its strength in the production of oil and gas. In fact, Trinidad & Tobago is the 5th largest producer of liquified natural gas (LNG) in the world. Although recent declines in the prices of these commodities and general turmoil in the financial markets have caused all nations to reconsider their priorities, Trinidad & Tobago enjoys relative strength in this regard and is host to one of the largest economies in the Caribbean.

There is a significant need to improve all aspects of this country's infrastructure and the water and wastewater sectors are no exception. Despite the abundance of rainfall that the main island of Trinidad (host to the vast majority of the population) receives, this rainfall occurs for only about half of the year during the rainy season while the balance of the year is dry. A continual lack of investment and poor management practices, largely the result of an improperly structured institutional framework fraught with political interference, has left the water systems in extremely poor condition. More than half of the water produced is "lost" or unaccounted for, while only about 33% of the population (possibly less) enjoy 24 hour, 7 day a week access to a municipal water supply.

The importance of water and wastewater infrastructure has now been acknowledged by the government and initiatives are underway to effect the improvements needed in these and other sectors as part of the broader strategy to become home to a more robust and diversified economy in the coming decades. Furthermore, the government and its agencies acknowledge that, in order to do so, it will leverage the expertise, technology and capital offered by the private sector from the international arena.

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About Boswell Capital

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Trinidad & Tobago

The Republic of Trinidad & Tobago ("T&T") is an English speaking country located in the southern Caribbean and a very short distance from Venezuela. Its population is generally composed of a roughly even distribution of Indian and African ethnic groups, with about one-fifth of the population being of mixed ethnicities including Chinese. Largely as a result of the size of its petroleum industry, and the significant increase in the price of these commodities in recent years, T&T has enjoyed a significant increase in overall prosperity.

The following selected information related to this country, host to a population of 1.3 million, is derived from the CIA World Factbook³:

- Literacy Rate: 98.6%
- GDP: US\$20.7 billion or US\$25,400 (2007 estimates)
- Government: Parliamentary Democracy
- Legal System based on English Common Law
- *"Trinidad and Tobago has earned a reputation as an excellent investment site for international businesses and has one of the highest per capita growth rates and per capita incomes in Latin America..."*

The current Prime Minister is Patrick Manning who is now in his second consecutive term in office and third term as Prime Minister. He was originally elected in 1991 and served in this capacity until 1995, then re-elected in 2001 and 2007. The next election is to be held in 2012. Mr. Manning has recently been diagnosed with kidney cancer and will be undergoing surgery on 17 December to remove the malignant tumour, however, a full recovery appears to be expected.

T&T will be host to two major international events in 2009 including The Fifth Summit of the Americas in April.



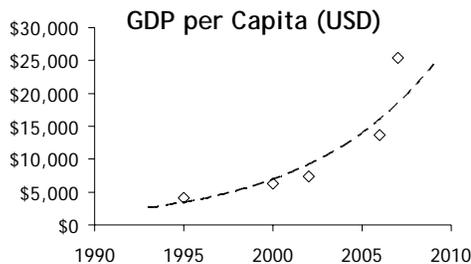
Source: UN data¹



Vision 2020

This is an initiative from the Office of the Prime Minister whose objective is for T&T to achieve "developed nation status by the year 2020 through a combination of economic, social and governance reform."⁴ This is the underlying theme driving the development patterns in this country which includes trends towards diversifying their economy, currently dominated by the petroleum industry, to other areas including becoming the financial centre for the region as well as tourism where they are lagging behind other islands in the Caribbean.

Vision 2020 Statement: *"By the year 2020, Trinidad and Tobago will be a united, resilient, productive, innovative and prosperous nation with a disciplined, caring, fun loving society, comprising healthy, happy and well-educated people and built on the enduring attributes of self-reliance, respect, equity and integrity."*⁵



Sources: various²

Millenium Development Goals (MDGs)

The United Nations has developed the Millenium Development Goals (MDGs) to respond to the world's main development challenges and have been incorporated into Vision 2020. Among the MGDs is a goal which relates to environmental sustainability within which one of the stated targets is to "reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation."⁶ In 2006, 94% of T&T's population was served by an improved drinking water source; Canada's figure is 100%.⁷



Economic Freedom

The following statistics are from The Heritage Foundation with respect to T&T⁸:

- Ranked as 29th freest economy in the world.
- Ranked 6th out of 29 countries in the Americas.
- “Investor Friendly”; welcoming of foreign investment.
- Financial market is generally transparent.
- Corruption is “minimal” for a developing nation.
- The economy as a whole has consistently scored higher than the averages of both the world and the Americas.

To successfully engage in any projects, it is essential to have local collaborators who are able to deal with political matters and difference in business culture when compared to Canada, for instance. Despite the similarity in language and law, there are distinct differences in the culture which must be properly addressed in order to function, including personal interaction.

T&T’s Water Sector

“Trinidad has suffered from the classic water problems that face developing countries such as unreliability and low pressure. These problems stem from policies relating to the supply and distribution system, economic and management approaches...”⁹

Based on our research, water losses, also referred to as unaccounted for water, are on the order of 50%. In fact, the writers have witnessed first hand several significant watermain leaks in the streets of downtown Port of Spain which appear to be rather aged as evidenced by the lack of organic growth in their flow path. The chlorine in the water has killed any organic matter which would otherwise be carried by storm drainage which is actually meant to flow in the gutters.

As well, only about 33% of the population enjoy municipal water service to their homes on a 24 hour, 7 day a week basis. The balance must resort to installing water tanks in their homes or on their property in order to balance the supply with their demand; that is, they fill the tanks when water is available which, for 28% of the population, is less than 48 hours per week.¹⁰

Clearly, there are a number of technical matters, apart from the existing administrative and institutional framework, which need to be addressed in order to have a water system expected from a developed country. This situation may also present opportunities for engagement of the private sector.

In February 2007, a Master Plan for Water and Wastewater was commissioned and has recently been submitted in Final Draft form. It is currently undergoing internal review at The Water and Sewerage Authority (WASA) of T&T and was presented to the WASA Board on Thursday 11 December 2008. The total value of water infrastructure improvements are estimated to be on the order of TT\$50 billion (C\$9.75 billion; US\$8 billion).

Subject to the comments generated at that presentation, some additional analysis is required, particularly in light of the financial commitment required by the plan when contrasted against the new economic climate. It is expected that this process will yield a tenable implementation strategy which leverages private sector participation to the extent possible.

In general, the stated demands and challenges of these sectors include¹¹:

- Current water supply deficit and future demands
- Limited wastewater infrastructure
- Aging infrastructure
- Institutional capacity



Selected quotes (emphasis added):

*“The transformation to developed country status is founded on well sequenced, well calibrated, social and economic reforms in, among other areas: Education, Health, Housing, Social Services, **Water**, Telecommunications and Transport.”*

*“We see the state as both investor and facilitator, **providing the appropriate investment climate**, and investing in the necessary strategic infrastructural facilities which are necessary pre-requisites **to allow private sector activities to flourish...** (the State) also has a responsibility to intervene in selected areas to support strategic investment, or where private investment is non-existent or slow to materialize.”*

*“...infrastructural development has been identified as a special priority over the next several years; **specifically on an improved water supply**; a comprehensive drainage programme; enhanced power generation and distribution facilities and a major expansion of transportation infrastructure.”*

*“...the expansion of public and private sector construction activity has pushed up the costs of labour and raw materials... This has led the Government to review its infrastructure development programme... **including new methods of financing...** which would reduce capacity constraints, thus minimizing the liquidity impact and mitigating the inflationary effect on the domestic economy.”*

Highlights from 2008/2009 Budget¹²

The following are some general economic highlights from the budget document:

- T&T has emerged as a major economic centre of the region
- Intend to establish Port of Spain as an international finance centre
- New Securities Act in the making; intended to make T&T capital market significantly more attractive to foreign and local investors
- S&P Long-Term foreign currency sovereign credit rating: A
- S&P transfer and convertibility risk assessment rating: AA
- Real GDP growth to continue at 5% per year from 2009-2011
- US\$8.5 billion in foreign reserves
- TT\$5.1 billion in Infrastructure Development Fund
- Unified Corporation and Individual Taxes at Flat Rate of 25%¹³
- Government planning to utilize more Public Private Partnerships (PPPs)

The following are the key elements of the Strategic Water Supply Plan:

- 5 large desalination plants
- The Moruga Dam
- National Water Transmission Grid
- Demand Management Programme (Universal Metering)
- Major water reuse projects
- Projected investment required: TT\$10 billion in 5 years

Recent Economy's Impact on Budget

The budget document was completed in advance of the most significant developments in the financial markets and, in particular, the fall in the price of oil and gas. At the time it was prepared, the Ministry of Finance believed it was acting conservatively in applying a US\$70 per barrel price for crude oil whereas, by mid-November 2008, this price had fallen to the mid-fifties, prompting the Prime Minister to address the nation on 20 November.

The impact of the global economic slowdown is expected to result in a TT\$6 billion deficit as well as the curtailing of expenditures and resultant deferral of projects aimed at supporting the achievement of developed country status¹⁴.

The 2009 Budget is anticipated to be recast in light of the new economic conditions, however, have not been announced as at the time of writing. Cutbacks in government spending are accordingly expected and some intentions to this effect have been announced, although it does not appear that they necessarily reach deeply into the water infrastructure arena.

In a news article dated 25 November, it was noted that the government plans to “continue many of the country’s million dollar, mega development projects and needed infrastructure within the oil and energy sectors which are currently the two main drivers of the economy in terms of revenue collection.”¹⁵

We believe that the resultant tightening of credit in the global financial markets and the pressures on government budgets will likely result in the increased interaction between the public and private sectors in delivering needed water infrastructure projects and many solutions will benefit from private sector financing alternatives as with public-private partnerships (PPPs).



Private Sector Participation in T&T

There are at least two significant experiences in recent history with respect to private sector participation in T&T's water sector which are briefly described here, followed by a discussion on future prospects.

Severn Trent Management Contract

In 1996, Severn Trent Water International from the U.K. entered into an interim management contract to manage WASA which, upon its expiry in 1999, was not renewed. The general opinion of this experience was negative and was largely based on the lack of material improvements in the organization during the contract period. In fact, certain performance metrics appear to have deteriorated during this period. This was a case of privatizing the entire service and there seems to be sentiment that full privatization may be less effective than other forms of private sector participation, in particular public-private partnerships (P3s).¹⁶

Point Lisas Desalination Plant

In 1999, a joint venture (JV) between Ionics Inc. and Hafeez Karamath Engineering Services Ltd. won the US\$120 million Build-Own-Operate (BOO) long term (20 year) contract to build a desalination plant to service the industrial park at Point Lisas. The JV company was named the Desalination Company of Trinidad and Tobago (Desalcott).¹⁷

By 2004, it appeared that the financial situation of Desalcott was in question, with stories relating to the potential local public listing to partially divest its interest in the project by raising equity in the capital markets.¹⁸ GE purchased Ionics Inc. later the same year.¹⁹

In 2006, the executive chairman of Desalcott, Hafeez Karamath (whose company owns 60% of Desalcott), was arrested with respect to alleged corruption into the desalination plant project.²⁰

Future Prospects

It appears that there continues to be political will to engage with the private sector for the delivery of infrastructure projects, having learnt lessons from past experiences. Such participation will likely be in the form of public-private partnerships (PPPs) as opposed to pure privatizations.

In fact, WASA is currently evaluating Requests for Information (RFIs) with respect to the proposed five large desalination projects and the water reuse project mentioned earlier. Each of these projects is expected to proceed as PPPs, likely in the form of the Design-Build-Finance-Own-Operate-Transfer (DBOOT) model, although variants can be expected. In recent discussions with the CEO at WASA, Mr. Errol Grimes, we understand that some of these projects may be awarded as early as mid-2009. Furthermore, given the current economic climate, more projects may be considered for implementation under similar structures, subject of course to WASA and the relevant ministries determining that the value derived under such arrangements would be greater than traditional procurement methods or deferral of project deliveries to future years.

Additional discussions with local market participants suggests that private sector participation is indeed attractive to local decision makers.



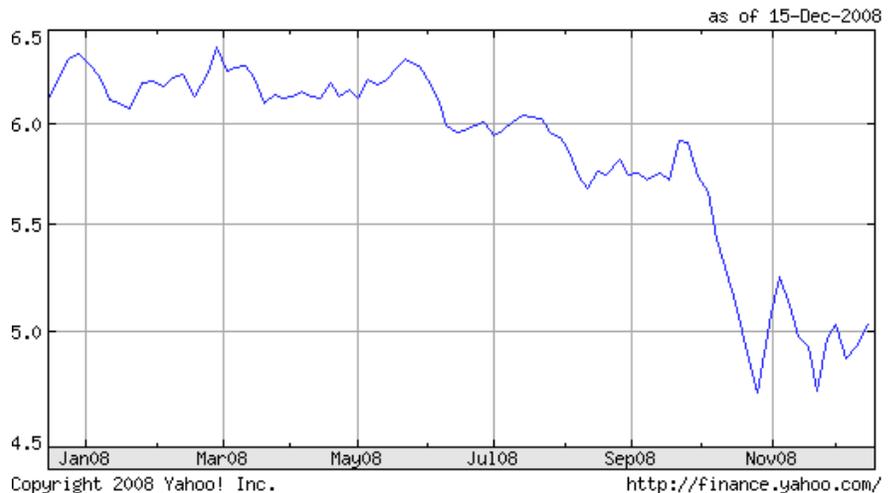
Source:

<http://www.travelblog.org/Maps/map-of-trinidad-and-tobago-td.gif>



Currency and Foreign Exchange

The official currency is the Trinidad and Tobago dollar (TTD) which is pegged with the US dollar at a rate of TT\$6.25050/US\$. The following is a plot of the exchange rate between the TT\$ and the Canadian dollar for the past year:



As a result of the peg to the US dollar, those operating in Canadian currency are directly impacted by its foreign exchange rate with the US dollar which recently has witnessed a significant decline and volatility largely on account of a poorly performing resources sector.

Clearly, any investments would have to be structured to mitigate foreign exchange risk. Given the TTD/USD peg, investors in and suppliers to Trinidad & Tobago are easily able to hedge on-going currency and capital flows in liquid markets.

Canada's Presence in T&T



It is evident that there are relatively strong connections between Canada and T&T, with a number of Canadian companies with presences or contracts with various levels of government or businesses locally. As well, several Canadian companies base their Caribbean or larger regional activities from offices in Port of Spain.

In fact, many natives of T&T have pursued post-secondary and post-graduate education in foreign jurisdictions and, in particular, within the Canadian university system.

The High Commission for Canada (embassy equivalent) occupies an impressive building in downtown Port of Spain and is often very busy with immigration applications in addition to other diplomatic matters.

Canadian banks have a long history of operations locally and are well respected.





Concluding Remarks

The economy is relatively strong and not burdened with excessive debt, and there is a political will to elevate the country to developed nation status in the coming decade(s). This will be achieved, in part, through reformations at the institutional levels of the country and through investment in all aspects of infrastructure to support a productive population and economy.

Trinidad & Tobago seems to have reached a point at which it genuinely wants to upgrade its infrastructure and economy. It remains to be seen if the political will to implement the 2020 Vision is sustainable; however there is the general recognition within the country that it is time to convert its good fortunes with respect to its energy resources into broadening its economic base and increasing the well being of her people. The country has developed and continues to further develop sound implementation plans. While it is relatively early in the process, there has been progress in the right direction.

There is a long history of Canadian presence in T&T with a number of firms routinely engaged with the local government and companies in areas of telecommunications, building science, transportation and, more closer to our direct interests, water and wastewater.

As with any investment decisions, there are advantages and disadvantages to be considered and risks to mitigate. In general, Trinidad & Tobago has a number of positive attributes and, with appropriate measures to understand and control risks, appears to offer an attractive environment for foreign investment, particularly from Canadian sources.

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