

BlueGen

‘water for life’



FACT:

By 2025, 1.8 billion people will be living in conditions of acute water scarcity, while two thirds of humanity (over 5 billion people) will be living in countries experiencing water stress for all or part of the year.

UNITED NATIONS ENVIRONMENT PROGRAMME 2006

GLOBAL ENTERPRISE EXPERIENCE 2008
Business Concept Proposal

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1. EXECUTIVE SUMMARY

According to the 'Pilot Analysis of Global Ecosystems', carried out by the World Resources Institute, currently 2.3 billion people, or 41 per cent of the world's population, live in water stressed areas. Of this total, 1.7 billion live in water scarce areas, with less than 1,000 cubic metres per person per year.

BluGen Corporation is an investment in your future. Our proposed venture is a solar powered, floating desalination plant, with the potential to pump ashore over one million litres of fresh water per day for distribution to arid or water scarce areas. Affordable, completely sustainable and environmentally responsible, our business has the potential to change the lives of people in the 'base of the pyramid' market.

2. BUSINESS OVERVIEW

2a. Global Water Crisis

Today, one in five people lack access to potable drinking water, and one in two people lack adequate sanitation¹. Global fresh water supplies are increasingly polluted, and in areas of Africa, Asia and the Pacific where many people walk for hours each day to reach a water source, the social and economic costs are enormous. Furthermore, in order to meet the food needs of our ever-expanding global population, we must *double* our current output of fresh water over the next five decades². To combat this crisis and preserve limited supplies, many countries are now privatising their water resources.

2b. About BluGen Corporation™

In the face of this growing crisis, BluGen Corporation can offer a solution. Approximately 71 percent of the Earth's surface is covered by ocean. We propose to desalinate salt water by solar powered osmosis, and offer a distribution service of clean, sanitised water to those in desperate need.

Every year, hundreds of container ships are sent to ship recycling yards to be broken down. Most international sea going vessels have on-board desalination plants which convert salt water into fresh water for use on board the ship. We propose to purchase an 'end-of-life' ship (ideally a Panamax container ship for its storage capacity) and convert it into a floating desalination plant. We will install up to ten desalination plants on board, and solar panels to power the generators and pumps. We will convert the hold of the ship into a storage space for desalinated water (Panamax ships have a storage capacity of up to 50 000 tonnes). The fresh water will be pumped ashore as required, and distributed (in bladders) by rail, truck or trailer to remote villages and areas that suffer a water shortage.

¹ BBC News, 2000. "Dawn of a Thirsty Century", <http://news.bbc.co.uk/2/hi/science/nature/755497.stm>

² Gritlin, J, 2007. "New UN Environmental Report Paints a Very Bleak Picture For Humanity", <http://theissue.com>

The benefit of purchasing an entire ship, rather than the separate parts, is that our service is transportable. Once the business is generating a profit in one market, we could detach the pipes, rig several desalination units and a solar generator to a barge, move our ship to another area, and start the process again. We could potentially sell or donate our prototype to a local partner or government body when our start up costs are repaid and our profit margins realised. Our proposal is not only designed to generate revenue, but also to promote an alternative and sustainable water source for arid regions of the world.

2c. Objectives and Goals

BluGen Corporation aims to provide the highest quality drinking water to the most remote populations at the most affordable and competitive price. We believe we can better our competitors in cost and quality, and offer an attractive distribution service for low-income families. By distributing water “to the door”, we eliminate the time required to pump water from a well, thus allowing families the opportunity to project their efforts in other areas. Our company motto is: “Any container, we fill it”; BluGen Corporation will give people the opportunity to purchase as little or as much water as they require.

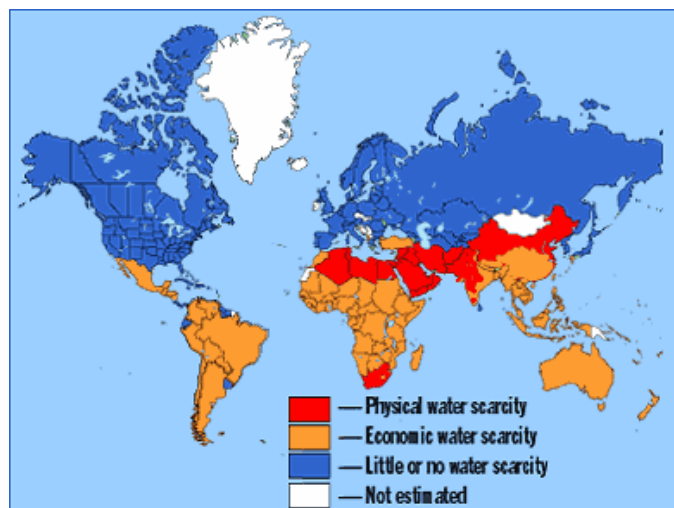
3. MARKET ANALYSIS

3a. Location, Location, Location !

There are many things to consider when starting up a new business, but perhaps the most important of these is location.

This map (<http://whyfiles.org>) shows in red the countries that suffer a physical water scarcity.

These countries are our target market as they have the greatest need for our product and service.



Of these critically water scarce nations, BluGen Corporation has chosen India as its initial target market for several reasons:

1. Size. India is home to 1/6th of the world’s population, and is the largest country in Asia.
2. Geography. India is surrounded by water: the Indian Ocean to the south, the Bay of Bengal to the east and the Arabian Sea to the west

3. Unlike much of Asia, India is a democratic nation with an established and robust judicial system based on British law that has existed for two centuries.
4. The country has relaxed trade rules and an interest in foreign investment, although traditionally Indian law has stipulated that control (or at least partial control) of the operation be in the hands of local partners.
5. English is the language of business and higher education in India.

India is also the world's largest market for ship recycling. Running an Indian-based operation would no doubt facilitate the acquisition of a vessel from an Indian shipyard. Furthermore, India is in close proximity to other water scarce areas of South East Asia, so moving our operation would not be too difficult.



MADRAS, CHENNAI

Within India, we have chosen the coastal area of Chennai for our start up venture. This region is densely populated and is connected to the rest of the country by 5 national highways, 2 railway terminals and 2 ports.

There is a similar business currently operating off the Chennai coast, which raised our interest in the area. We hope to secure a second mover advantage in this market, riding the wave of our competitors marketing campaign while providing a superior, cheaper and more widely distributed product.



“Historically, Chennai has relied on annual monsoon rains to replenish water reservoirs, as no major rivers flow through the area. Steadily growing in population, the city has faced water supply shortages and its ground water levels have been depleted”³

3b. Target Market and Market Trends

Based on the ideas of C.K Prahalad, our target market are the consumers within the Indian market who earn less than US\$2 a day (about 80 rupees). This market largely consists of rural farmers.

³ Wikipedia, 2008. <http://en.wikipedia.org>

The market trend for desalination is the use of nuclear energy or fuel. Existing desalination plants generally operate from large land based structures, which are very costly to develop.

In the Indian market, our main competitors are:

- a land based, nuclear desalination plant at Kalpakkam, run by the International Atomic Energy Association
- MSC Power Corp, a Singapore-owned company based in Southern India whose primary purpose is to supply solar energy to rural areas, with desalination as a secondary source of revenue.
- A floating desalination plant situated off the Chennai coast. This technology was developed by the National Institute of Ocean Technology, and has the capacity to produce 1 000 000 litres of fresh water per day. It is unknown how the plant is powered.

3c. Competitive Advantage

Our product will exceed that of our competitors in quality and price. Using solar power, we will produce fresh water much more economically than our competitors, thus enabling us to keep our cost structure low. Our far-reaching distribution system and “any fill” policy will provide superior value for our consumers, and create a superior profit for our business.

4. BUSINESS STRATEGIES

4a. Distribution and Transport

The rural market of India is large and scattered, and Infrastructure such as roads, warehouses and communication systems are inadequate. Although 700 million Indians live in rural areas, finding them is not always easy. In a widely dispersed market that many distributors may fail to reach, sheer availability of our product could have a strong influence on brand choice, volume, and market share.

We aim to develop a strong distribution system to help our brand reach the core of the rural Indian market. We will distribute large quantities of water in lightweight plastic bladders, which can be transported by rail, truck, bullock cart, boat, even trailer-drawn auto-rickshaw in the most remote locations. The bladders will be controlled by a litre gauge, which will allow us to fill any container, regardless of size.

4b. Marketing Strategies

AWARENESS: With large areas of rural India inaccessible to conventional advertising media, building awareness of our product will be a major challenge. Events such as fairs, festivals, Haats etc could be occasions for brand communication. Putting banners or stickers on shop fronts, wells and hand pumps are another way of increasing brand visibility. Although much of rural India is illiterate, we could use methods such as radio advertising to reach our target market. We could employ staff from rural areas

with an understanding of local dialects to go into villages to promote our product. We could host promotional events, and distribute sample bottles of water. We could also advertise our company logo on the sides of our desalination plant and our transportable bladders.



ACCEPTABILITY: Rural consumers value old customs and tradition. We must therefore convince our consumers to accept that our brand is more suited to their needs than other products. Aside from our “to the door” distribution service and “any fill” policy, we must ensure that rural consumers are buying a product that will enhance their quality of life. We could work alongside federal and national government agencies, aid organisations and NGOs to educate rural consumers on the benefits of sanitised water, and offer our product and service to schools, hospitals etc.

AFFORDABILITY: With low disposable incomes, our product must be affordable to the rural consumer. We will charge our consumers a base rate of 20 paise per litre of water (there are 100 paise in 1 rupee, and 4000 paise in USD\$1). This rate is easily affordable for people earning USD\$2 (or 8 000 paise) a day. It is also subject to change depending on the quantity of water purchased. Our “any fill” policy will allow consumers to purchase as little or as much as they require, or can afford. In addition, we will distribute branded, easy-to-carry, water containers with our first batch of water, which we will encourage consumers to reuse for their next purchase to obtain a discount. This will have a three-fold effect of promoting our brand, reducing waste, and giving our consumers an incentive to remain loyal to our product.

5. FINANCIAL OVERVIEW

5a. Sources of Capital

Funding for this project will be in the form of donated investment and government and private grants. Our costs are our initial start-up costs of USD\$3 000 000 (acquiring a vessel, converting it into a plant, installing solar panels, pipes etc), after which the desalination process is completely self sustainable. We will also need to budget for maintenance costs, marketing, distribution and wages.

GRANTS AND LOANS: We are hoping to secure USD\$1 000 000 in donated investment and USD\$2 000 000 in interest free loans, to be repaid over a two year period.

We will approach national government ministries (such as the Ministry of Water Resources) for an interest free loan of USD\$500 000, to be repaid over a two year period. As a sign of goodwill, we will offer a 5 percent dividend of our gross earnings. We will seek an additional USD\$500 000 interest free loan from local government bodies and other public enterprises that support sustainable efforts in the water sector, such as Arghyam. We will ask for financial support or sponsorship of USD\$2 000 000 from

aid organisations such as UNEP, UNICEF, the Bill and Melinda Gates Foundation and the Asian Development Bank. We could also approach pipeline and other manufacturers and ask for investment in return for guaranteed business over an extended period.

Greenpeace are putting increasing pressure on ship owners to decontaminate their toxic vessels before export to Asian scrapyards. This is a costly process, and one which many ship owners may not wish to undertake. We could provide a service where we would buy the toxic ships at a very cheap rate, and perform the decontamination process ourselves. We would then have a clean ship, ready for conversion into the floating desalination plant.

5b. Cash Flow Analysis

COST	1-6 months	7-12 months	13-18 months	19-24 months	25+ mnths
Overheads*					
- VHF system	5 000	-	-	-	-
- Cell Phones	1 600	1 200	1 200	1 200	1 200
- Ferry	2 000	2 000	2 000	2 000	2 000
- Maintenance	10 000	10 000	10 000	10 000	10 000
Marketing	25 000	15 000	15 000	15 000	10 000
Wages*	70 000	70 000	80 000	80 000	80 000
Distribution	50 000	50 000	100 000	100 000	100 000
Loan Repayment	500 000	500 000	500 000	500 000	-
TOTAL	663 600	648 200	708 200	708 200	203 200

* There will be no major overheads as our business will be run from on-board the ship. Our only expenses are cell phones, the cost of hiring a boat to ferry food and other supplies to the plant, distribution costs, and the cost of wages, which will increase as our business expands and more staff are hired. We will hire local staff to run the plant and distribute the product. We will also hire several specialists in the first 12 months to oversee operations and train staff.

Potential Earnings NB: 100 paise = 1 rupee, 40 rupee = USD\$1

(based on the production and distribution of 1 000 000 litres of water per day, and subject to change)

- 1 litre = 20 paise
- 5 litres = 1 rupee
- 200 litres = USD\$1
- 1 day = USD\$5 000 (1 000 000 litres of water sold)
- 30 days = USD\$150 000
- 12 months = USD\$1 800 000

GROSS REVENUE First 12 months = USD\$488, 200
 First 24 months = USD\$871, 800
 First 36 months = USD\$2, 265, 400