[ WATER TREATMENT VIETNAM ]

2010

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International
Business and
Languages
Water treatment Vietnam

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International Business and Languages

Report E1-2, Group 5

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Summary

This report is divided in 7 chapters. These chapters have been selected because of their importance to Dutch companies who want to penetrate the Vietnamese market. The chapters help to create a view of the situation in Vietnam and also contain helpful recommendations.

The first chapter is the Macro analysis which describes the country Vietnam on several factors as demographic, economic, social cultural, technological, environmental and political. These aspects together form the DESTEP-analysis.

The second chapter consists of a Financial analysis which describes the financial risks within the country. The chapter is divided in currency, transaction, translation and economical risks and it finishes with a ratio analysis.

In the third chapter the Industry analysis is being described. First of all the industry itself which consists of sector, industries and competitors. In the second paragraph the industry history, lifecycle, size, trends, outlook and governmental regulations are being presented. The chapter continues with geographic area, product, market of the product and finishes with the systems.

The Branch analysis forms the forth chapter of this report. This analysis is essential because it contains the potential entrants, customers and business partnerships. Furthermore the competition is being described and the chapter ends with a clear conclusion.

The fifth chapter is the Market overview which contains and external SWOT-analysis, a confrontation matrix, strategic issues & opportunities and at the end the strategic options. In the last part we present the problems and opportunities from a market perspective which lead to further recommendations.

Chapter six, ‘Strategic market approach’, is more a recommendations chapter. It contains market entering strategies which consists of push/pull strategy and the entering strategies. Positioning is the last paragraph of this chapter.

The last chapter of this report is chapter number seven, the Market approach program. The best possible decisions, which should be taken according to the executed research, are processed within this chapter. The product, pricing and distribution decisions form the first three paragraphs. The chapter ends with different payment methods and communication decisions.

The enclosures of this report tend to give additional information for the reader in order to broaden his vision of Vietnam and its market.
The report contains recommendations which can help Dutch companies to penetrate the Vietnamese market successfully.
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Introduction

This report is being written as an assignment for 'Avans Hogeschool' in 's-Hertogenbosch. The EVD and VLM are participating organizations in this mission. The final report is meant for the participating companies which collaborate with the VLM and NL EVD Internationaal that are willing to enter the Vietnamese market with their water treatment systems.

The assignment for this block was to make a market approach plan. In order to write these recommendations a research had to be done, according to the rules of Avans University of Applied Sciences. All the information gathered concerns the water treatment business of Vietnam. The relevant information for the business segment is summarized in this report.

The goal of this report is to give a market approach plan to the Dutch companies about the water treatment industry in Vietnam. With this research and recommendations, the Dutch companies that are active in this market segment have an idea of the market and its possibilities.

This report is written for:
NL EVD Internationaal
VLM
Mr. R van Oorschot

Information has been gathered from books, lectures and the internet. The group has attended the 'Environmental Trade fair in the Brabanthallen' in 's-Hertogenbosch. It was a great opportunity to see some products in reality and speak to representatives of several companies.
At first information has been gathered by the group from decent sources. From the gathered information the useful information has been being selected and processed within the project.
During the trade fair, the group has interviewed 2 companies. This information has been processed in the project and used to create a view of how the market should be approached. With the processed information a report has been created which includes research and recommendations.
The final presentation is a part of the process which presents the most important aspects of the project.
1. Macro analysis

In the macro analysis the different actors of the company are described. This includes: demographical-, economical-, social-cultural-, technological-, environmental-, and political aspects.

1.1 Demographical environment

In this part the different aspects of Vietnam will be highlighted, more precisely the demographical aspects, including population density, ethnicity, education level, health of the population, religious affiliations and other aspects regarding the population.

<table>
<thead>
<tr>
<th>Vietnam</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>89.693.700</td>
</tr>
<tr>
<td>Population density</td>
<td>265 persons per sq km</td>
</tr>
<tr>
<td>Urban population distribution</td>
<td>22 %</td>
</tr>
<tr>
<td>Rural population distribution</td>
<td>78 %</td>
</tr>
<tr>
<td>Largest cities, with population</td>
<td>Ho Chi Minh City : 7.105.800</td>
</tr>
<tr>
<td></td>
<td>Hà Nội : 6,450.000</td>
</tr>
<tr>
<td></td>
<td>Haiphong : 1.853.400</td>
</tr>
<tr>
<td>Life expectancy</td>
<td>71.3 years</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>24 deaths per 1.000 live births</td>
</tr>
<tr>
<td>Literacy rate</td>
<td>94.4 %</td>
</tr>
</tbody>
</table>

Table. 1 Population analysis

The population in Vietnam was around 89,693,700 in 2009, the population estimated in 2025 will be approximately 106,357,000 (Growth 18.5%). The population is divided in 3 main religions: Buddhism (50%) Indigenous beliefs (9%) and Roman Catholic (7%), there are also a lot of ethnic groups and tribal people (34%). The official language is Vietnamese.

<table>
<thead>
<tr>
<th>People</th>
<th>2000</th>
<th>2005</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>72</td>
<td>78</td>
<td>72</td>
<td>74</td>
</tr>
<tr>
<td>Fertility rate, total (births per woman)</td>
<td>2.3</td>
<td>1.7</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Adolescent fertility rate (births per 1,000 women ages 15-19)</td>
<td>22</td>
<td>5</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Mortality rate, under-5 (per 1,000)</td>
<td>30</td>
<td>18</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Immunization, measles (% of children ages 12-23 months)</td>
<td>97</td>
<td>95</td>
<td>83</td>
<td>92</td>
</tr>
</tbody>
</table>

Table. 2 Population comparison Vietnam- Netherlands (upper line: Vietnam, lower line: NL)
The table below shows that Vietnam had the highest fertility rate in 1970-1975 among country groups in the table. This data combined with the growth in fertility and mortality rates, life expectancy has also seen a great increase.

<table>
<thead>
<tr>
<th>Period</th>
<th>world</th>
<th>Developed countries</th>
<th>Less developed countries</th>
<th>Asia</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-1975</td>
<td>4.47</td>
<td>2.13</td>
<td>5.41</td>
<td>5.04</td>
<td>6.7</td>
</tr>
<tr>
<td>1985-1990</td>
<td>3.38</td>
<td>1.83</td>
<td>3.84</td>
<td>3.4</td>
<td>4.02</td>
</tr>
<tr>
<td>2005-2010</td>
<td>2.55</td>
<td>1.6</td>
<td>2.75</td>
<td>2.34</td>
<td>2.14</td>
</tr>
</tbody>
</table>

Table. 3 Fertility rate

1.1.1 Demographic transition

The rate of people with official working age (15-65 years) will increase in the future, this could give pressure on employment decisions.

According to the government, health care and a social security plans have to be developed, because the percentage of older people is also expected to increase. The ratio birth (ages 0-14) is decreasing. The ratio in 1980 was 30% and changed to 18% in 2010.

1.1.2 Education

A Survey reveals that 94% of the population aged over 15 is literate. Education is obligatory for children ages 6 to 14, but due to a shortage of adequate facilities, fewer young Vietnamese receive a secondary education. School cannot always be afforded by the parents.

1.1.3 General facts

- The population growth rate is about 1.14% per year;
- Agricultural labour accounts for 50% of the total labour force;
- Unemployment rate stays under 5%;
- The poverty rate will be decrease to 10 - 11%;
- The universalization of secondary school will be completed; educated labour rate reaches 40% of the total labour force;
- Under-five the malnutrition rate is around 20%.

1.1.4 Geography

Vietnam is bordered by China to the north, Laos and Cambodia to the west, Hanoi is the capital, and Ho Chi Minh City (formerly Saigon) is the largest city.

Vietnam has four major geographic regions:

The country is divided in 4 major regions, in the north of Vietnam, from the Vietnam to China’s Yunnan Plateau, there is a section of tangled mass of rugged and heavily forested mountains. Secondly, the Red River Delta, which is a flat plain that stretches along the Gulf of Tonkin.
The Truong Son (Annam Highlands) lies to the south of the delta and forms the backbone of Vietnam. In this region lay the Central Highlands, a vast upland plateau situated between the Cambodian border and the South China Sea.

<table>
<thead>
<tr>
<th>Area</th>
<th>= 331.690 sq km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastline</td>
<td>= 3.440 km</td>
</tr>
<tr>
<td>Highest point</td>
<td>= Fan Si Pan 3.143 m</td>
</tr>
</tbody>
</table>

Table. 5 Geographic country aspects

**1.2 Economic environment**

**1.2.1 Statistics**

<table>
<thead>
<tr>
<th>Vietnam</th>
<th>GDP: $256.584 billion (PPP, 2009 estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>growth 5.3% (2009 estimation)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>$ 2,942 (PPP, 2008 estimation)</td>
</tr>
<tr>
<td>GDP by sector: Agriculture</td>
<td>19.0%, industry: 42.7%, services: 38.4% (2008 estimation)</td>
</tr>
<tr>
<td>Inflation</td>
<td>20.3% (2008) ,6.9% (2009 est.)</td>
</tr>
<tr>
<td>Labour force</td>
<td>47.41 million (2008 est.)</td>
</tr>
<tr>
<td>Labour force by occupation: Agriculture</td>
<td>55.6%, industry: 18.9%, services: 25.5 (July 2005 estimation)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Netherlands</th>
<th>GDP: $658.228 billion (PPP, 2009 estimation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>-4.3% (2009 estimation)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>$39,938 (PPP, 2008 estimation)</td>
</tr>
<tr>
<td>GDP by sector: Agriculture</td>
<td>1.9%; industry: 24.4%; services: 73.7% (2009 estimation)</td>
</tr>
<tr>
<td>Inflation</td>
<td>1.2% (2009 estimation)</td>
</tr>
<tr>
<td>Labour force</td>
<td>8.33 million (2009 est.)</td>
</tr>
<tr>
<td>Labour force by occupation: Agriculture</td>
<td>2%; industry: 18%; services: 80% (2005 estimation)</td>
</tr>
</tbody>
</table>

Table. 6 Economical statistics

From the table above, the conclusion can be drawn that the Vietnamese economy is developing, investing primarily in industry and agriculture. In comparison with the Netherlands, which has undergone a decrease in GDP (-4.3%), Vietnam has a GDP growth of 5.3%.

Vietnams national monetary unit is the *new dông*. The new dông is divided into 100 xu (15,994 new dông = 1 $; 2006 average).
The inflation rate in Vietnam reaches 6.88% (average monthly Consumer Price Index of 2009, year-on-year; 8.50% (average monthly CPI of first quarter 2010). Because The Netherlands has a more powerful economy, the inflation rate is smaller.

Vietnam has 8 major export partners - U.S., E.U., Japan, China, Australia, Singapore, Germany, and the United Kingdom. Imports sum up - $68.8 billion (first quarter 2010: $17.5 billion). Vietnam has 8 major import partners - China, Japan, Singapore, Taiwan, South Korea, Hong Kong, and Thailand.

1.2.2 History
In order to get familiar with Vietnam’s current economy a basic history research is highly recommended.

During the centuries of Chinese and Vietnamese imperial rule, Vietnam’s society was an agrarian society. After partition in 1954, the northern part had a highly centralized, planned economy, whereas the south part operated on a free-market. Like in any other state with communist parties in charge, the government had an important role, as in the economy. The Marxist economic theory calls for all the utilities and industries that are operating in the country should be put under state or collective ownership. The government’s reluctance to privatize caused a major problem in the development of the country’s economy. Vietnam’s government launched a reform program to move toward a mixed economy that operates under private as well as collective or state control (1986). As a result, Vietnam entered a period of rapid development.

1.2.3 Economic growth and macro-economic stability
There are still economical problems in Vietnam. The small scale of the economy and low income have hindered the leverage of production and market development. The risk of being left behind remained very high. The production structure in each sector, field and region is not fully responding to fast changes in demands of domestic and international markets. The level of technology and the capacity to absorb technology transfer are generally far behind other countries in the region.

In the GDP structure for 2010, agriculture-forestry-fishery is to account for nearly 35.9-37.4%, industry-construction 20.5-20.6% and services over 42-43.5%. Total annual export output has to increase by 20%. Within 5 years 2006-2010, new jobs are provided to 2.5-3 million people. The percentage of poor households is to drop from 17.6% in 2005 to 10-11% in 2010 (according to the new poverty standards).

Multinational companies are already active in Vietnam:
1. Samsung. Samsung’s long-term investment in Vietnam has attracted many satellite companies; these companies should be able to contribute to the development of the supporting industries.
2. Canon. After Canon invested in laser and color printer production in Thang Long Industrial Zone in Hanoi and Que Vo Industrial Zone in Bac Ninh Province, many companies did the same.
3. Intel. Some years ago Intel also invested in Vietnam with more than 1 billion US dollars. Despite the global economic recession, the project has been progressing.
1.2.4 Natural resources

Vietnam has mineral resources including gold, zinc, phosphate, tin, iron, chromite and anthracite coal. Most of the minerals are located in the northern part. Extraction of oil deposits in the South China Sea began in the mid-1980s.

In 2010 crude oil extraction is to reach 19.16 million tons (including oil extracted overseas), and has reached 11.06 billion cubic meters. Vietnam may complete investment in Dung Quat oil refinery project in 2009; implement Nghi Son petrochemical and oil refinery project, oil refinery project in the South, and invest in oil and gas extraction overseas.

Steel: The demands for steel in Vietnam in 2010 are forecasted to be 11-12 tons, with an annual increase of 11-12%. To provide this, steel production is expected to reach 9 million tons. In this way, Vietnam may facilitate the attraction of foreign investment in the steel production.

Ore mining and metallurgy: Vietnam should concentrate on completing Sin Quyen Copper Complex started in 2006. Increase in this sector is forecasted if Vietnam invests also in Lam Dong bauxite – aluminum complex with the capacity of 600,000 tons per annum to export aluminum, and later stage of aluminum electrolysis. Vietnam should continue the aluminum production project for export in Dak Nong with the capacity of 1 – 2 million tons per year. In this way new prospects for Vietnam’s industry will be assured.¹

1.3 Social cultural environment

In order to do business in Vietnam, it is essential to be aware of the cultural differences and to respect the Vietnamese culture. The Vietnamese culture is a lot more different than the Dutch culture. To map the social and cultural factors and differences, there has been chosen for the theory of Mr. Hofstede. He made a theory to describe a culture based on 5 different dimensions: power distance, individualism, masculinity, control of uncertainty and the teachings of Confucius.

Besides that, there has been chosen to explain the values of intercultural communication by Edward Hall: High context vs. low context, time perception, personal space, and speed of messaging. The differences within the mentioned dimensions are shown in the next overview.

<table>
<thead>
<tr>
<th>Dimension:</th>
<th>Netherlands</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power distance</td>
<td>• Small power distance; • Decisions are discussed within groups; • The manager is part of the group;</td>
<td>• Large power distance; • Decisions are taken by the manager or boss; • Not much space for discussions; • Recommended to approach the highest rank in the company.</td>
</tr>
</tbody>
</table>

¹ Encarta Encyclopaedia 2008
http://www.state.gov/r/pa/ei/bgn/4130.htm
http://amchamvietnam.com/index.php?id=3979
http://www.state.gov/r/pa/ei/bgn/3204.htm
<table>
<thead>
<tr>
<th>Individualism/Collectivism</th>
<th>Individualistic; People live as individuals; Important to be independent; Business relationships are strictly business-related</th>
<th>Collectivistic; People live in close groups who take care of each other; Family is very important; In business cultures it is important to build up a good relationship, as well as business-related as personal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masculinity/Femininity</td>
<td>Very feminine; Almost no difference in the roles of men and women in a family, company etc.; Importance lays in good relationships, employment certainty and the living environment</td>
<td>Feminine; Slight difference in the roles of men and women in the family, company etc.; Importance lays in good relationships, employment certainty and the living environment.</td>
</tr>
<tr>
<td>Uncertainty avoidance</td>
<td>Quite low avoidance; Dutch people are a bit threatened of uncertain or unknown situations; People a not very expressive; There are some rules to gain control of uncertainty</td>
<td>Low avoidance; Vietnamese people are not threatened of uncertain and unknown situations; People are not expressive, showing emotions is socially unacceptable.</td>
</tr>
<tr>
<td>Teachings of Confucius</td>
<td>Virtues based upon past and present; Social life is important but not essential; Tenacity and frugality are important.</td>
<td>Tenacity, economy, sense for relation and sense of shame are important values; Respect for traditions; Maintaining face (reputation) is extremely important; Easily offended from the point of view of a stranger.</td>
</tr>
<tr>
<td>Context of communication</td>
<td>Communication in a low context; Very explicit and straight to the point;</td>
<td>Communication in a high context; Very implicit, a lot of non-verbal communication; Details of the persons are important, such as status, family, history etc.</td>
</tr>
<tr>
<td>Time perception</td>
<td>Monochrome culture; One thing at a time; Time and deadlines are important; Interruptions are annoying. Too organized and rigid from the point of view of a polychrome culture.</td>
<td>Polychrome culture; Time is flexible and spatial which can be adjusted to your needs; Chaotic from the point of view of a monochrome culture.</td>
</tr>
<tr>
<td>Personal space</td>
<td>Large personal space; Creates uncomfortable feelings when someone stands too close to the other; Could be interpreted as cold and impersonal.</td>
<td>Small personal space; Creates uncomfortable feelings when someone stands too far away; Could be interpreted as sticky and too personal.</td>
</tr>
</tbody>
</table>
### Speed of messages

- Fast and direct messages; Co-related to low context culture.
- Slow messages; Co-related to high context culture; Messages are indirect, receiver has to search for several aspects (such as non verbal gestures).

<table>
<thead>
<tr>
<th>Table. 7 The differences in the cultural dimensions of the Netherlands and Vietnam.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed of messages</strong></td>
</tr>
<tr>
<td>Fast and direct messages; Co-related to low context culture.</td>
</tr>
<tr>
<td>Slow messages; Co-related to high context culture; Messages are indirect, receiver has to search for several aspects (such as non verbal gestures).</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

### Business etiquette

There are several things that are very important to keep in mind when you go to Vietnam to start a business. Relationships between companies have to be very good, and it is important to build up a good relationship. Especially when going to Vietnam for the first time, it is important to leave a good first impression. Below are some extra tips:

- Show interest in the country and its culture. If counterparts see that you are interested, you will gain respect and they are willing to help you. A little knowledge of the language might help as well.
- The Vietnamese are conservative and their society is based on good relations. Therefore it is critical that you build up good personal relationships based on trust and support by having a lot of personal contact. Instead of starting to talk about business immediately, start getting to know each other.
- Negotiations can go slow, be patient for the procedure of the other party.

### 1.4 Technological environment

In this chapter insight will be given in the historical and the current technological development of the Social Republic of Vietnam. The first part includes the history as well as the focus on the research, followed by the technological renovations continued by technology science. The new policies and legislations will be explained in the next part of this chapter. The last part concerns additional issues that deserve attention regarding to the risk of entering the Vietnamese market.

#### 1.4.1 History

In the period after the war technological development became an important theme on the daily governmental agenda. The use of natural resources has been growing since this focus. A lot of research has been done in the biotechnology, mechanical engineering, automation technology and information technology. Ten science and technology programs have been set out. This information has been researched with more than 400 projects. More than 100 of these projects have been successfully implemented.

The information obtained in the research is applied to production in order to increase the quality and home consumer goods. The aim of this development was also to contribute more into the international market especially used for import and export.

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2 Allemaal Andersdenkenden, Geert Hofstede, 26th press 2008.

http://books.google.nl/books?id=Hr3adyadHC4C&printsec=frontcover&dq=edward+mildred+hall&hl=nl&ei=T96hTLGWDJCSOKz5hMkD&sa=X&oi=book_result&ct=result&resnum=7&ved=0CE0Q6AEwBg#v=onepage&q=false

http://books.google.nl/books?id=CJu8AUpx8xgC&pg=PA11&dq=6+basiswaarden+van+Hall+cultuur&hl=nl&ei=JNyhTlEphZAZ49obUyQM&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCwQ6AEwAA#v=onepage&q=6%20basiswaarden%20van%20Hall%20cultuur&f=false
1.4.2 Nowadays

Technology has become a more important part of the society in Vietnam. Technological renovations in production and the service branch have obtained an important role. The development resulted in a growth of technology for several branch. Investment has been made into projects as: Building models of technological application, transformation of production structures in agriculture, socio-economic development, productivity and quality and economic effectiveness.

Technology and science research is the next theme that will be discussed. Forty development institutions have received an investment for the equipment, improvement and upgrade. Key laboratories and two high-tech zones are being build.

Technological transfer in enterprises is another researched and developed part. This is after all mostly implemented in FDI’s and state-owned companies (since it is a communist country). Industrial companies have strengthened to improve effectiveness and competiveness in products and services. The reforms and policies improved as well, regarding to the legislation on science and technology. The management science and innovation also improved thanks to these measures.

A development of the state legal documents has taken place. This means that these are promulgated and applied by now. Several new policies made the new vision possible that stands for innovation, significantly contributing to the promotion of science and technology, socio-economic growth and integration.

1.4.3 Lack of development

There are still a lot of issues in the country from technological perspective. Scientific research activities and technological development for instance are not attached to reality and neither responsive to the requirements of the socio-economic development. Satisfaction of the development of requirements regarding to scale and level of depth are still limited. Scientific quality and economic effectiveness continue to fail.

A shortage in the financial structures is obvious regarding to the subsidy-based administrative nature. The conditions of the market mechanism such as dynamism and innovation in scientific and technologies stay behind. Tasks of renovating and raising technological levels are slowly conducted and established. The expectation of the research pointed at a rapid growth of high-tech zones and mobilized scientific and technological resources. Yet it did not work out as expected.3

1.5 Environment Vietnam

Vietnam faces significant environmental changes as a result of rapid economic development, population growth and urbanization. Vietnam’s pollution hot spots include solid waste, water and air pollution. These have been the biggest challenges for the Ministry of Natural Resources and Environment (MONRE). According to the Ministry, the environmental situation in Vietnam is deteriorating due to a lack of Governmental resources to do something about these issues.

1.5.1 Current situation in the cities

After a shocking research of Vietnam's Ministry of Construction, it seems that only 200 of the country's 689 cities provide clean drinking water through central municipal treatment plants. The potable water is either gained from surface water or underground sources. Only 60 percent of the population has access to clean water. The Government has started a plan which should be ready in 2010 to supply clean water to 80 percent of the population. The costs of this major program are about 2 billion US dollars.

The surface and ground water in Vietnam are polluted. Biochemical oxygen demand of some large rivers which are supplying water to municipal water treatment plants, is very high. The current drinking water treatment plants in Vietnam lack the ability to reduce the biochemical oxygen demand.

Sewage and drainage problems are starting to increase. Because of the rapid industrialization and urbanization, the sewage systems are outdated and overworked. Except for 3 large cities in Vietnam, none of the other cities have a centralized wastewater treatment plant.

1.5.2 Industrial wastewater

Industrial wastewater has a bad influence on the environment. Throughout the whole country, there are 74 operating industrial zones. Only 15 out of these 74 have wastewater treatment systems. Because of this, direct discharge of water into the environment had been the result. Multinational corporations who are active in Vietnam have attracted the attention for this issue. Solid waste is becoming another important threat for the environment in Vietnam. More than 20,000 tons of solid waste are being generated in Vietnam each day. This also influences the water.

Because waste is being buried, the groundwater gets very polluted. Vietnam needs water treatment systems who can filter this polluted water and change it into clean drinking water. There are already some American companies active in the country who try to combat this pollution problem. Industrial waste which contains pesticides and agricultural chemical runoff affects the water severely. This kind of contamination increases every day. Vietnam has a huge requirement for proper equipment, technology and services to improve the environmental situation. There are a lot of opportunities for the Dutch companies to export their water treatment products and services to Vietnam.

1.5.3 Hanoi and Ho Chi Min City

The two largest cities Hanoi and Ho Chi Min City are even more affected by pollution and water contamination, which results in health problems in these large cities. The groundwater in these cities is very contaminated which results in bad potable water. It will be quite difficult for Dutch companies to handle these problems. But if they succeed, it can result in a substantial environmental improvement as well as large profits and long-term projects. There is definitely a great possibility for companies who offer modern water treatment systems to enter the market successfully.

1.5.4 Environmental Awareness

The people in Vietnam are well aware that their current environmental situation is not very good. Because of the fast industrialization and urbanization there is a lot of waste
which is produced either by citizens or companies. It is clear that especially the youth of Vietnam wants to change the current situation. There have been many environmental campaigns which were started by young people such as:

- Cycling tours;
- Making people reduce their usage of plastic bags;
- 10000 students took part in a walk through Ho Chi Min City to raise funds to build 200 new toilets;
- Vietnam Unilever donated 1.5 billion during this walk;
- Students have built a large globe out of plastic which was sold in an auction to raise money for producing lifejackets. These jackets were donated to children who live near water.

By raising awareness the young people hope to also influence the elder who primarily think more of ‘surviving’ rather than their environment.\(^4\)

1.6 Political environment

1.6.1 History of politics

Primarily, Vietnam’s government was based on Confucianism but this changed after the French invasion. When the country was divided in 1954, the North became communist with the South following the example of Western countries. In 1976, when the reunification took place, there were attempts to convert South Vietnam to communism. Although communism has spread throughout the South, it also caused a great exodus of people from Vietnam to other countries. In 1980, the constitution, similar to the Soviets’ but with some democratic ideals was promulgated. There were to be secret ballot elections, but overall the communist party would dictate what would be considered the best for everyone overall. It was revised slightly in 1992 to show economic reforms that had occurred in 1986 as well as decreasing the party’s role in governing.

1.6.2 Current politics

Vietnam is a single-party socialist republic. The Communist Party is reaffirmed in the current constitution adopted in 1992. With its 2.2 million members it has exclusive power and is the force leading the state and society. All of Vietnam’s political organizations are controlled by the Communist Party. Executive, legislative and judicial branch is not separated. The policy is set by the Politburo, which is composed of fourteen members.

The top four positions are the Party General Secretary, Nông Đức Mạnh, the General Minister of Public Security, Le Hong Anh, the State President, Nguyễn Minh Triêt, and the Prime Minister Nguyễn Tấn Dũng. These positions are elected by the 160 members of the central committee. The day-to-day policy is implemented by eight members of the Politburo, who form the Party Secretariat. Next to the Communist Party, the most powerful institutions within Vietnam’s government are the offices of the president and the prime minister. The Vietnamese President is the head of the state and serves as the nominal commander of the armed forces as well as the chairman of the Council on National Defense and Security. He is elected to a five-year term by the National Assembly, which is the only organization having legislative powers. All government

\(^4\)http://www.buyusa.gov/asianow/environment.html
functions are overseen by its broad mandate. Nevertheless, the national assembly is still directed by the Communist Party, as 80% of its members are Communist Party members.

1.6.3 Water treatment and waste processing

Regarding laws and regulations on waste processing and water treatment the Vietnamese government has issued decrees which contain the standards and requirements companies have to comply with. Although these standards are at a relatively high level, Vietnam still has to face environmental challenges due to infringement. Reasons for that are mostly not accomplishable claims, a lack of enforcement and a non-sufficient budget.5

5 http://www.asianinfo.org/asianinfo/vietnam/pro-politics.htm
2. Financial analysis

This chapter gives an insight in the market potential for water treatment regarding to the financial aspects of the country. In order to invest in a foreign country this data is necessary. The Vietnamese government signed The ordinance. This is an agreement which is approved by the WTO for international trade. Since June 2006 this agreement is in use.

2.1 Currency risk

It is important to keep the currency risk in mind when investing in a foreign country. The value paid in euro’s has to be exchanged into Vietnamese Dong. The current exchange rate of €1 is 27.146,14 Dong (VND). It’s important to see the history changes of the currency in order to determine whether the currency is stable or not.

In the graph below the change of the exchange rate is presented. The VND is decreasing at the moment, nevertheless the currency is stable between 27 VND and with a lower boundary of 23 VND. This is in comparison with the euro.\(^6\)

![Graph 1 Dong (VND) exchange rate €](http://nl.exchange-rates.org/history/VND/EUR/GFC30-FF2A-9AD6-31EB224E13BC)

The conclusion of this currency risk is that it is still fluctuating heavily 27 -22 difference of 5 dong, roughly 20% fluctuation.

2.2 Transaction risk

In order to calculate the transaction risks an investment has to be done. In footnote 7 the general risk calculator is shown. In the enclosure the method to read the ratio’s is presented. The water treatment is a difficult sector. The water treatment systems are owned by the government, but sold by a company, as shown in the competitor analysis often American companies.

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Below the two different ratios of investment are described. The private sector:
An investment of a maximum of 10 million has a score of 3, as shown in the enclosure about transactions risk. This means that an investment of 10 million dollars has no more risk than in sovereign countries.

The public sector:
An investment of a maximum of 10 million in Vietnam from the public sector has a risk of 1. This means that there is little risk, but it would not form a barrier to invest in the country.

2.3 Translation risk

The financial translation risk is very high in Vietnam. The progressive changes of the past still do not make the market transparent. Strong differences in currency are still an item for the Vietnamese market. Therefore the translation risk is still high, in a good situation much profit can be secured, but changes in the currency could result in big losses.

2.4 Economic risk

The financial risk is still very high in the country, where the political and economical risk is decreasing the financial risk is still very high. There is still a poor regulatory structure, there is not much confidence in the market yet.

The shortage of the country

- The asset system is weak as the banking system
- Inadequate standards of reporting
- There is a poor regulatory structure
- The development of the country is not represented in the economics
- Market is not transparent
- No volatile financial system that supports the ability of insurance and paying claims
- In order to operate in Vietnam an account has to be opened. The main purpose of this is to monitor the flows of capital of the currency in and out the country.
- Foreign currency payments have to go through the Vietnamese bank for governmental reasons.

Banking security

The international banks are essential for the economic security a company desires. This is the intermediary for business abroad the country.

<table>
<thead>
<tr>
<th>Vietcombank</th>
<th>Vietnamese Commercial Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>State bank of Vietnam</td>
<td>(SVB)</td>
</tr>
<tr>
<td>Eximbank</td>
<td></td>
</tr>
<tr>
<td>Asian Commercial bank</td>
<td>(ACB)</td>
</tr>
<tr>
<td>National Finance Supervision Council</td>
<td>NPL ratio of 2.46 percent for the whole banking system, there is no need to worry</td>
</tr>
</tbody>
</table>

Table. 8 Banks of Vietnam

**Economic security**

The VIB is the international bank of Vietnam. This bank offers security by international finance systems that are being used.

In this table below the commodities of the financial institutes are shown. There is a L/C option offered by banks. Still the security of this system cannot be approved. In the enclosure several export commodities are offered by the Vietnamese banks. For a long time, international experts have warned that if credit growth of the banking system surpasses 30 percent, the risk administration of Vietnamese banks will be harder especially in the context of not good customer information and the unqualified credit risk management process of banks. The importance of the analysis of the banks consists in the fact that the money amount deduction for credit risk standby fund affected strongly to bank profits so many lenders expected to soon refund the sum of money after lowering bad debt ratio.

Saigon Bank only started to disburse loans after issuing regulations and guidance on risk management and supervision on the kind of credit form. In addition, the bank ordered branch to withdraw the previously disbursed loans to raise earnings for 2010. In 2010 Eximbank's credit growth is still planned at 50 percent as compared with the previous year to 58 trillion dong.

According to Le Quang Tri-Nam Viet Commercial JS Bank (Navibank), its credit growth of 2010 is estimated at 70 percent against 2009.

In the enclosure several export commodities are offered by the Vietnamese banks.

2.5 Ratio analysis

‘Vietnams currency gained the most in more than a week after the central bank said that bank-safety ratios will be raised next year. Benchmark two-year bonds fell". This is a cite of the Vietnamese business news. This is positive news for the export future of Vietnam. The national bank of Vietnam will raise the security ratio’s. Still the current ratios are low, as visible in the table below."}

<table>
<thead>
<tr>
<th>Price to Earnings (P/E) ratio of 11.9</th>
<th>Differs per industry, stock industry rate, of 11.9 (banking industry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return of Equity (RoE) of 18%</td>
<td>this Return on equity is very low, this means the generated profits and the efficiency is low.</td>
</tr>
<tr>
<td>The provisions to increase capital adequacy ratio (CAR) between 8- 9%</td>
<td>Measures the stability and efficiency of the financial systems around the world (8% is very low compared to 70% in the Netherlands)</td>
</tr>
</tbody>
</table>

Interest rates to 11 percent/year following the deposit interest rate reduction schedule as soon as October 1

Table. 9 Overview ratios


3. Industry analysis

A successful industry analysis provides information regarding general market information, the industry’s repartition, history, industry life cycle, size, trends, outlook and governmental regulations. These headlines give an overview of the entire industry. This analysis helps the companies to from an idea about the current situation of the market, focused on the industry.

3.1 The industry

3.1.1 Sector

The Gas, Water & Multi-utilities sector include:
- Distributors of gas to end users but excludes providers of natural gas.
- Utility companies which have more than one utility.
- Water companies providing water to end users, including water treatment plants.

The water treatment companies are integrated in the Water part of the Gas, Water & Multi-utilities sector.

3.1.2 Industries


There are a lot of drinking water companies in Vietnam who provide clean water. The problem is that they have a lack of technology. Most of these companies are Vietnamese and owned or supported by the government.

3.1.3 Competitors

The focus of new water treatment companies should be on the large cities in Vietnam. The American companies are the leaders in environmental equipment and technology. Because of Vietnam its current situation, American environmental companies will find numerous opportunities to export their products and services to Vietnam which are a threat for Dutch companies. The Vietnamese currently have a huge need for equipment, technology and services.

The 5 largest cities of Vietnam are:
- Ho Chi Min City, with a population of 7.1 million
- Ha Noi, with a population of 6.45 million
- Hai Phong, with a population of 1.85 million
- Can Tho, with a population of 1.2 million
- Da Nang, with a population of 900.000

Together they have about 17.5 million inhabitants. The total population of Vietnam is 88 million which leaves a huge target group in the smaller cities and countryside of about 70 million.
Hai Phong Water Supply Company
Hai Phong Water Supply Company supplies clean surface water in Hai Phong which is the 3rd largest city of Vietnam. The company is located in Han Phong which is in the north-east of Vietnam. They have been in the business since 1905 and concentrate on their own city. As this is the 3rd largest city of Vietnam with almost 1.850.000 million inhabitants, it is also a large target group for companies who want to enter the market. The Hai Phong Water Supply Company supplies water to 220.000 inhabitants. This is only 12% of the total market share in Hai Phong.

Hanoi Water Business Company
Another important company is the Hanoi Water Business Company (HWBC) located in Hanoi. They are state owned and provide tap water to consumers. The water is being extracted out of the ground and goes to a process of Disinfection, Filtration, Flocculation, Sedimentation and Aeration. They provide water to 2.1 million inhabitants in Hanoi city. As the total population of Hanoi is 6.45 million, this gives HWBC a market share of 32.8%.

The Saigon Water Supply Company
The Saigon Water Supply Company (SAWACO) is exploiting, purifying and distributing water in Ho Chi Min City. in HCMC. The percentage of households served in Ho Chi Min City is 88%, of which 78% from the SAWACO system and 10% from rural water systems. There are 7.1 million inhabitants in Ho Chi Min City which means that 6.248000 are supplied with water of whom 5.538000 are supplied by SAWACO. 88% of the mark is occupied, but this does not mean that the current system could not be improved. If a more modern system would appear on the market, SAWACO might lose market share. On the other hand there is a possibility of working together with SAWACO because they are already present in the market. They have the knowledge of the Ho Chi Min market, but they do not have the most modern systems which offers great opportunities to new companies.

Can Tho Water Supply and Sewerage Company
The Can Tho Water Supply and Sewage Company is located in the city of Can Tho. It is a 100% state capital company who has been established in 1977. It is not clear what their market share is, but it is clear that their main target is Can Tho city.

Da Nang Water Supply Company DAWACO
The Da Nang water Supply Company is the main supplier in Da Nang city. It has allow service coverage of about 65% of the population’s water supply in six urban districts which is mainly resulting from long underinvestment in asset management and water losses reduction, and insufficient water production and treatment capacity. Da Nang has a population of 900.000 inhabitants which means that 585.000 are supplied with clean water, which leaves a large target group without water.11

3.2 Industry information

3.2.1 Industry history

Environment: Vietnam has significant environmental problems since the population has grown. Most of the problems Vietnam faced in 2006 included solid waste, water and air pollution. It was a challenge for the Ministry of Natural Resources and Environment (MONRE) to improve the situation. The Government lacked resources therefore Vietnam's situation has been deteriorating.

At the above production rate, only 60 percent of the population has access to clean water. The average rate of clean water leakage in urban areas is 36 percent and reaches 50 percent in some places. The Government issued a developing plan, which is supposed to provide clean water for 80% of the population by the end of 2010. The Vietnam Water Supply and Sewage Association (VWSA) calculated that the investment for water supply projects will be higher than 2$ billion over the next 10 years.

During the Vietnam War (civil war between democracy followers S. and the communists N.), North guerrillas hid in the jungles. To deprive their opponents of hiding places, the U.S military instituted a program which involved aerial spraying. This way, the water ended up in being extremely polluted and resulted in polluted meat, vegetables which are being consumed by the population resulting in health problems.

Continuing with a short history of most important water companies:

1. The Saigon Water Supply Company (SAWACO) manages the water supply operations in Ho Chi Min. It was established in 1874 and restructures in 2005. At the end of 2006, SAWACO had a staff of 3,500 people; staff contained 2,800 persons working in water operations.

2. Hanoi Water Business has been responsible for water supply in Ha Noi and its five urban and 2 suburban districts Dir Gen and Bui Van Mat since 1954.

3. Hai Phong is city number 3 in Vietnam. It estimates 500,000 inhabitants on the urban area that is around 20 square kilometers. The city is divided into 38 phuongs. The phuongs represent administrative sections.

History of Hai Phong Water Supply and Sanitation. This program started in 1990. The project was founded by the Foreign Ministry of Finland and Department of International Development Cooperation as well. The objective was to improve water supply and sanitation services in Hai Phong and improve the services of sanitation SADC – biggest sanitation service, URENCO (solid waste), HPWSCO (water supply).

Development of a GIS for water supply management and network information started in 1997.

4. The Can Tho Water Supply and Sewerage Company (WSSC) is the company responsible for water supply and sewage disposal in Can Tho City. It was founded in 1931. More than 75% of the population have clean water that comes from rivers.

5. Da Nang was not always like this. It has been observed a certain socioeconomic growth. Vietnam's economy has grown with 8% per year. Da Nang's economy has grown more faster. The estimated value is 13% in 2006. This value was the highest growth rate within Vietnam's borders. Da Nang Water Supply Company (DAWACO) has been producing 120,000 cubic meters of water per day (m3/day) from surface water.12

[12] http://books.google.nl/books?id=gP - 8RXzOs8C&pg=PA4699&dq=Hanoi+Water+Business+Company&source=bl&ots=m RJJEVpula&sig=eYNJulQiomKqtHUg0tZ8UCVWWws&hl=nl&ei=RWOjTMrIC8WaOLmR1d0H&sa
3.2.2 Industry life cycle

The product lifecycle consists of 4 steps:

- Introduction: The product is new on the market. There might still be logistics or manufacturing problems. Therefore it takes time before the product starts to sell properly.
- Growth: There is a rapid increase in sales because of the increase in demand for the product. Competition is increasing.
- Maturity: Sales are slowing down again. There are a lot of competitors, therefore margins may be affected.
- Decline: In this stage sales begin to decline rapidly. Adjustments to the product may extend the lifecycle. Important marketing decisions have to be taken.

![Industry Lifecycle Diagram]

Figure. 1 Industry Lifecycle

Regarding to the water treatment systems in Vietnam it can be assumed that they are located in the growth stage of the product lifecycle. The water treatment systems are not completely new in the Vietnamese market, but their also not very sophisticated. There is a lack of modern equipment which offers possibilities for Dutch companies. The company that will penetrate the Vietnamese market at the moment with a modern product which will be not too expensive, will probably obtain a large market share. The current systems, which are mostly financed by the government, are not as good and efficient as for example the Dutch ones. In this stage it is still very important to promote a product well in order to ‘convince’ potential customers.

The fact that the water treatment systems are located in the growth stage, can encourage companies to start doing business in Vietnam. The product lifecycle cannot be used as a ‘predictor’ of product behaviour. The lifecycle helps companies to understand the situation in a certain market. Companies have to keep in mind that

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depending on the stage in the lifecycle, different strategies have to be applied in order to keep up or defend each selves against competitors.

### 3.2.3 Size

![Figure. 2 Division of population](#)

This graph shows the division of the between urban and rural has been rural areas is more expensive and are located closer to each other provide water there.

The total population of the cities is together with the five largest cities (Ho Chi Min, Ha Noi, Hai Phong, Can Tho, and Da Nang) which together represent 17.5 million gives a total of 26.652.500 inhabitants who live in cities, or urban areas.

Vietnam has a population of 87.146.997 million inhabitants. Around 32.7% of the population lives in a city and 67.3% in the country side.

Furthermore the country is divided in 8 majors regions. These are being worked out in the table below. In the enclosure more separated information is provided. The estimated percentage who have access to clean water is around 60-70\%\(^{13}\) With this percentage an estimation of people with or without access to clean water can be made.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Urban Area (32.7%)</th>
<th>Rural area (67.3%)</th>
<th>Mayor cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bac trung Bo</td>
<td>T = 3.456.697</td>
<td>T = 7.113.614</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A = 2.417.688</td>
<td>A = 4.979.530</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N = 1.039.009</td>
<td>N = 2.134.084</td>
<td></td>
</tr>
<tr>
<td>Dong Bac Bo</td>
<td>T = 3.131.515</td>
<td>T = 6.444.983</td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Population</th>
<th>Access to Drinking Water</th>
<th>No Access to Drinking Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dong Bang Song Cuu Long</td>
<td>T = 5.752.410</td>
<td>A = 4.026.687</td>
<td>N = 1.725.723</td>
</tr>
<tr>
<td></td>
<td>N = 1.200.000</td>
<td>A = 8.922.304</td>
<td>N = 3.551.718</td>
</tr>
<tr>
<td>Dong Bang Song Hong</td>
<td>T = 6.193.150</td>
<td>A = 4.335.205</td>
<td>N = 1.857.945</td>
</tr>
<tr>
<td>(red river delta)</td>
<td>N = 4.026.687</td>
<td>A = 8.922.304</td>
<td>N = 3.551.718</td>
</tr>
<tr>
<td>Dong Nam Bo</td>
<td>T = 5.166.396</td>
<td>A = 3.616477</td>
<td>N = 1.549.919</td>
</tr>
<tr>
<td></td>
<td>N = 1.950.000</td>
<td>A = 4.970.000</td>
<td>N = 2.130.000</td>
</tr>
<tr>
<td>Duyen Hai Nam Trung Bo</td>
<td>T = 2.430.534</td>
<td>A = 1.701374</td>
<td>N = 729.160</td>
</tr>
<tr>
<td></td>
<td>N = 1.500.688</td>
<td>A = 2.130.000</td>
<td>N = 2.130.000</td>
</tr>
<tr>
<td>Tay Bac Bo</td>
<td>T = 890.120</td>
<td>A = 623.084</td>
<td>N = 267.036</td>
</tr>
<tr>
<td></td>
<td>N = 1.831.960</td>
<td>A = 1.282.372</td>
<td>N = 549.588</td>
</tr>
<tr>
<td>Tay Nguyen</td>
<td>T = 1.738.049</td>
<td>A = 1.216.634</td>
<td>N = 521.415</td>
</tr>
<tr>
<td></td>
<td>N = 3.577.086</td>
<td>A = 2.503.960</td>
<td>N = 1.073.126</td>
</tr>
<tr>
<td>Total population</td>
<td>28.758.871</td>
<td>59.188.066</td>
<td></td>
</tr>
<tr>
<td>Total Access</td>
<td>20.131.210</td>
<td>41.431.646</td>
<td></td>
</tr>
<tr>
<td>Total No access</td>
<td>8.627.661</td>
<td>17.756.420</td>
<td></td>
</tr>
</tbody>
</table>

Table 10 Estimation of water supply per region

Legend:
T = Total population
A = Access to drinking water
N = No access to drinking water

In the major cities worked out in the last column of the table. The government uses one company per city. 

3.2.4 Trends
There are a lot of American companies that are already present in the Vietnamese water treatment market. This is because of their modern technology. Healthy drinks are

http://www.citypopulation.de/Vietnam.html
becoming more and more popular so people demand to have access to clean water. Furthermore the role of advertising and marketing is becoming more and more important so the companies that want to penetrate the Vietnamese water market have to keep in mind not to underestimate this.

A clear trend is that most cities have one water treatment company which is state owned and which posses a 'monopoly' in their own area because they are the only ones active in those local 'smaller' markets. On the national level these companies are part of the oligopoly of Vietnams water treatment market. This is changing at the moment. The foreign companies are trying to penetrate the Vietnamese market and collide with the existing companies while national companies try to obtain larger market shares which results in both international and local companies that are starting to compete.\(^\text{15}\)

3.2.5 Outlook

Over the last years, Vietnam has had an economical growth, in fact between 1998 and 2008, the annual growth rate was 7\% 'GDP' with an augmentation of the export and the domestic market. In 2009, Vietnam has known a diminution, the growth slowed down to 5\%.

![Annual GDP growth rate (\%)](Graph_2_Annual_GDP_growth_rate)

The foreign investments are the key to the future, in general the Vietnamese market is an oligopoly with a lot of small companies which are active in the same sector, there is not one particular leader.

More American companies start to implement in the Vietnamese water treatment sector. The government expects the population to be more than 100 millions around 2020.

So the demand for clean water will grow exponentially, and is expected to grow with an annual 3.9%.\(^{16}\)

### 3.2.6 Governmental regulations

For prosperous investments in Vietnam it is very important to keep in mind the governmental regulations regarding trade and cultural aspects, business, water management.

**Aspects regarding import:**

**Tariffs**

Vietnam’s import taxes have an average of 18%. Under the U.S. Vietnam Bilateral Trade Agreement (BTA) and in preparation for accession to the World Trade Organization Vietnam has to provide some changes to its trade regime.

The Government wants to protect domestic industries. Because more than 20% of the national budget is provided by the taxes on imports, the Government faces an obstacle. A requirement for membership to AFTA is to eliminate or reduce tariffs. The same principle is applied to the UE countries.

There are 3 different tariff rates for importing goods in Vietnam now: ordinary tariffs, preferential tariffs (NTR), and special preferential tariffs.

Ordinary regards goods originating from countries that have not exchanged Normal Trade Relations (NTR) agreements with Vietnam. The preferential tariffs regard goods that originate from countries which have NTR status with Vietnam. The price for a cubic meter of water is VND4,000 (€15 cents).

VAT replaced the previous turnover tax. Many sectors from economy probably pay under the VAT. There are 4 kinds of VAT: 0% for exported goods, 5% essential goods and services such as medicine and water, 10% for mineral products (crude oil for example), transportation service and nevertheless 20% for lottery.

The services related to water treatment systems have 5% VAT, whereas transportation have 20% VAT.

**Trade barriers**

In September 2003 the Government took a decision regarding importing and re-exporting petroleum. Trade in petroleum is also subject to annual licensing and price regulation. [www.vilaf.com](http://www.vilaf.com) gives an insight in the current trading law.

**Import requirements and certifications**

\(^{16}\) [http://ekstranett.innovasjonnorge.no/Felles_fs/CVCTeamNorway/Dokumenter/CVC%20workshop/06%20-%20Tran%20Vietnam%20CDM.pdf](http://ekstranett.innovasjonnorge.no/Felles_fs/CVCTeamNorway/Dokumenter/CVC%20workshop/06%20-%20Tran%20Vietnam%20CDM.pdf)

The number of importers decreased in the last years because of the Government Degree No. 57/1998/ND-CP, partly revised by Decree No. 44/2001/ND-CP, dated August 2, 2001. This Degree communicated that Vietnamese can trade 1. export goods of all kinds, except for the banned ones 2. can import goods according to their business lines stated in their business registration certificates.

For the imports a legally registered business license is required for any sort of transaction. In Vietnam you have to register their import and export codes with the Department of Customs. Foreign investment companies are for the moment permitted to distribute products produced by them and not goods produced by their partners offshore.

In 2010, the European Union and Vietnam stated the start of free-trade negotiations. Trading would be possible because it is a chance for Europe to penetrate Vietnamese markets and an opportunity for Vietnam to have a better economy.

According to the Government Degree No. 57/1998/ND-CP, partly revised by Decree No. 44/2001/ND-CP Goods that have minimum quality can be imported in unlimited quantity.

**Labeling and marking requirements**

In the enclosure under labeling and marking requirements the specifications of this theme are being worked out.

**Customs regulations**

Goods are inspected before entering Vietnam, this procedure is being executed by Vietnamese standards.

**Regulations regarding business**

Deputy Prime Minister Nguyen Sinh Hung will continue to allow small businesses to use Ministry of Finance issued invoices until the end of first quarter next year. Vouchers used in banking which meet international regulations will be subject of taxation From 2012 small businesses have to print their own invoices.

**Account opening.** It is obligatory to open an account in Vietnam. This is necessary in order to trade internationally. Since the Vietnamese government desires to have the export quoted.

**Foreign investors** may have an unlimited amount of bonds in circulation within Vietnams securities market. The purchase and sale of securities have to be conducted with the help of assurance companies. According to the legislation (2004) profit remittance is allowed at the end of the fiscal year, but only if there is a one-off basis. Furthermore a tariff balance sheet should be submitted to relevant authorities.
Government guaranty
According to article 16 from Chapter III, Guarantee of the Government, from the Vietnamese legislation, the bank of Vietnam on behalf of the Government grants guarantees to credit organizations if they have the Prime Minister’s approval. After granting the guarantee, the State Bank of Vietnam have to send a guarantee document set to the Ministry of Finance for general supervision of the granting of the guarantee of the Government.¹⁷

3.3 Geographic area

There is a difference in the service of the provided water. This can vary from a continuous service in most parts of the cities, to a couple of hours each day (or not) in the smaller towns and rural communities. In the small communities in the rural areas where is no access of treated water, the people extract water from shallow wells or they have to buy it against a high price.

Safe water can be defined as ‘water that has been treated in a treatment plant’. Most cities and the smaller towns have treatment plants and companies that take care of treating water, but the quality of the treated water is still below the governmental determined standards.¹⁸

The regulations for water quality are determined by the national government. The supply and the actual treatment of water is regionally or locally regulated. Each city has its own company that takes care of the water treatment, supply and sewerage. Down below the water supply of the 5 largest cities of the country are described:

**Ho Chi Minh City** is with a population of 7,1 million the largest city in the country. The main company involved with the treatment of water is the Saigon Water Supply Company (a.k.a. SAWACO). The company’s service is continuous and has a high quality with 5 employees per 1.000 connections.

The city’s water supply is divided in 3 parts:
- 1. 70% comes from the Dong Nai River
- 2. 23% comes from the Saigon River
- 3. 7% comes from ground water

The water that comes from the two rivers is first treated in one of SAWACO’s four surface water treatment plants.¹⁹

**Ha Noi**, the capital of Vietnam, is served by the Hanoi Water Business Company. All of the city’s water resources are from ground water. Expected is that the demand becomes too big in the next years, which will result in the use of surface water.²⁰

**Hai Phong**, the third city of the country, has the Hai Phong Water Supply Company. All of this city’s water resources are from surface water. The company delivers a quality with Vietnamese standards, which are the same as the World Health Organization.²¹

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²⁰ [http://www.lwr.kth.se/Publikationer/PDF_Files/LWR_EX_04_12.PDF](http://www.lwr.kth.se/Publikationer/PDF_Files/LWR_EX_04_12.PDF)
Can Tho, Vietnam’s fourth city is served by the Can Tho Water Supply and Sewerage Company. Around 75% of the inhabitants is supplied with high quality water that is treated in surface treatment plants.\textsuperscript{22} Da Nang, with 900,000 citizens the fifth city of the country, is served by the Da Nang Water Supply Company (DAWACO). Like Can Tho and Hai Phong, the water supply in the city is surface water from rivers that has been treated in treatment plants.\textsuperscript{23}

To summarize the geographical focus of the water treatment in Vietnam, the following can be said:

- The Vietnamese government determines the norms for the quality of the water, in collaboration with the World Health Organization.
- There are national objectives for waste-water treatment and water supply. Clean water has to be accessible to 100% of the population in 2020.
- At this point, very few of the small communities in rural areas of the country have access to clean water. They still have to get water from wells or to buy it against a high price.
- The strategies for the water supplies are regionally or even locally organized. Every large city has its own company or companies that take care of the water sector.

\subsection*{3.4 Product}

\textit{The core business which will be worked out in this report is about water treatment systems. This business is a developing business within the borders of Vietnam. There are different systems that provide the same core product, purifying water. First the market of the product will be described, afterwards the different systems that exist for treating water will be described in this chapter.}

\subsection*{3.4.1 Market of the product}

There are four types of water: Surface- ground- sea- and waste water. The surface water is more difficult to purify as groundwater, where surface water is easy to gather. The waste water is used water with lots of contaminants. Sea water has to be unsalted in order to produce drinking water.

The aim is to get purified water. The efficiency and effectiveness are important factors, consisting of quality and quantity. Waste water that has to be purified can cost a lot of money and a lot of water might be spilled during the processes. The quality of course is very important in order to get the right product at the end.

Waste water is a big part of the water market, there are two types of waste water that should be considered.

- Urban waste water
- Industrial waste water

\textsuperscript{22} \url{http://www.wastewater-vietnam.org/publications/waste_water_vietnam_mandatory_eng_2439276.html}
\textsuperscript{23} \url{http://www.wastewater-vietnam.org/publications/waste_water_vietnam_mandatory_eng_2439276.html}
Waste water is a special sort of water which is highly polluted. It might even be toxic. Industries often dump the wasted water of the production process in rivers or lakes. In order to clean this water treatment systems have to be used. A chemical or biochemical process might be needed.

There are three main methods that provide purified water.
- Reverse osmosis
- Distillation
- Filtration
  - Mechanical treatment
  - Biological treatment
  - Chemical treatment

The three methods use are worked out in the enclosure. The Filtering method applied for water treatment.

Three filtering stages of water treatment are being distinguished.
- Mechanical treatment
- Biological treatment
- Chemical treatment

Stage 1. Mechanical treatment (primary sedimentation)
1. Screening → coarse material will be filtered
2. Grit removal → sand, glass and other parts will be undone
3. Primary sedimentation → suspended organic solids will be filtered

Stage 2. Biological treatment (secondary clarification phase)
1. Ponds and lagoons start purifying the water
2. Activated sludge
   - Aeration
3. Anaerobic fermentation

Stage 3. Chemical treatment (tertiary treatment)
1. Removal of nitrogen(during secondary treatment)
2. Removal of phosphorus(addition of iron or aluminum)

These stages represent the preferred process of water treatment. After these stages have been competed the water quality is good enough to use as drinking water. The table below shows the applications as well as the different levels of purified water. The specific technologies that are being used to purify water are also shown. The specific technologies could be stages of the purifying process, during this process these technologies undo the water of specific contaminants.

---

24 [http://www.allaboutwater.org/compare.html](http://www.allaboutwater.org/compare.html)
25 [https://bb.avans.nl/webapps/portal/frameset.jsp?tab=courses&url=%2Fbin%2Fcommon%2Fcours e.pl%3Fcourse_id%3D_41476_1](https://bb.avans.nl/webapps/portal/frameset.jsp?tab=courses&url=%2Fbin%2Fcommon%2Fcours e.pl%3Fcourse_id%3D_41476_1)
### Applications

<table>
<thead>
<tr>
<th>Process water (boiler)</th>
<th>Specific technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra pure water</td>
<td>Seawater reverse osmosis</td>
</tr>
<tr>
<td>Drinking water</td>
<td>Surface water treatment</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Softening</td>
</tr>
<tr>
<td>Waste water</td>
<td>Disinfection</td>
</tr>
<tr>
<td></td>
<td>Iron and manganese</td>
</tr>
<tr>
<td></td>
<td>Arsenic removal</td>
</tr>
<tr>
<td></td>
<td>Nitrates removal</td>
</tr>
<tr>
<td></td>
<td>Remineralisation</td>
</tr>
<tr>
<td></td>
<td>Heavy metal removal</td>
</tr>
<tr>
<td></td>
<td>Pesticide removal</td>
</tr>
</tbody>
</table>

**Table.11 Technologies used for purifying to drinking water**

#### 3.4.2 Systems

The current market offers many products with the purpose of purifying water. This makes it difficult to make a summary of the products. Therefore a basic end product is described. This is a general description of the products that purify water. The table presented down this page will give an example of systems used in the branch. The products in the second column show the extra that might have to be implemented in the purifying process, depending on the customers need.

##### Cleaning water Systems (filtering)

- Septic tank
- Bio filters
- Bio rotors
- Membranes
- UV Systems

##### Systems

<table>
<thead>
<tr>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep filters</td>
</tr>
<tr>
<td>RO membranes</td>
</tr>
<tr>
<td>UF membranes</td>
</tr>
<tr>
<td>Nano filtration units</td>
</tr>
<tr>
<td>reverse osmosis</td>
</tr>
<tr>
<td>Chemicals units</td>
</tr>
</tbody>
</table>

##### Constructed wetlands (filtering)

- Production drinking water systems
- Membrane filtration

##### Systems

<table>
<thead>
<tr>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra filtration units</td>
</tr>
<tr>
<td>Measurement devices</td>
</tr>
<tr>
<td>UV systems</td>
</tr>
<tr>
<td>Ion exchange resins</td>
</tr>
<tr>
<td>Ozon disinfection units</td>
</tr>
<tr>
<td>Filtration media</td>
</tr>
<tr>
<td>Ion exchange units softeners</td>
</tr>
<tr>
<td>Bag and cartridge filters</td>
</tr>
<tr>
<td>EDI Units</td>
</tr>
<tr>
<td>Clarification units</td>
</tr>
<tr>
<td>Sediment filters</td>
</tr>
<tr>
<td>CIO2 generators</td>
</tr>
<tr>
<td>Advanced oxidation units</td>
</tr>
</tbody>
</table>

**Table.12 Example of product lines of companies**

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26 [http://www.lenntech.nl/index.htm](http://www.lenntech.nl/index.htm)  
4. Branch analysis

In this analysis the direct players on the market are described. This analysis will give an insight in the current market of water treatment including suppliers, potential entrants, potential customers, potential business partners and competitors. The last one is important to describe in order to give an overview in the next chapter of opportunities in the current market. This is a dynamic player analysis, this means the players which have an active role and a research of what their business is about.

4.1 Potential entrants

The potential entrants of the Vietnamese market depend very much on the government. The government of Vietnam affects the possibility of entering the market. From Dutch perspective all water treatment companies from all over the world are possible entrants. Therefore this headline is not applicable.

4.2 Potential customers

After the industry analysis, the next step is to focus on potential buyers. Due to the communist government and regulation of importation, the government can be seen as a potential customer as well as the active companies in the market. The potential customers can be divided in two parts, the government and the companies. These parties include the business to business market.

The potential customers are processed below:

**The government**
In the coming years, Vietnam will be the fastest growing country in the world regarding to the demand of water treatment technology. That is why the government allocates a huge budget for new projects. The government is a potential customer, Vietnam has been working with the royal Dutch embassy on several projects in the past.

The government can buy products and sell them afterwards to companies, in that case, companies negotiate directly with the government.
The government is the most important organization regarding to planning and creation of action plans for national rural water supply and the sanitation strategy. 

The principal potential customer will be the government with whom companies can make agreements for long term and also build a profitable relationship.

Institutes mandates and activities:

- **Ministry of agriculture and rural development**
  In this structure the CERWASS (centre for rural clean water and environmental sanitation) is delegated to attend to coordinate activities throughout the country.

- **Ministry of construction**
  Responsible for the urban and rural planning and policies, construction standards, rules and regulations.

- **National institute of occupation and environmental health**
  Assisting the minister of Health.

- **Ministry of national resource and environment**
  This section is delegated to be the administrative management of water resources, and it can also develop laws to support implementation of the Law on Water resources.

- **ADB (Asian Development Bank)**
  ADB gives every year a help for Vietnam development. A certain percentage of this amount is allocated for decontamination of water. Japan and the United States are the largest donor country for the ADB.

**Reseller markets**
Reseller includes wholesalers, distributors and retailers. The role of a reseller is to buy a product with the intent of selling it to others.

**Institutional markets**
Which mean larger buyers like the school, universities, hospitals or hotels. It is most of the time this kind of organizations which purchase the product to use it for their own.

**Consumer markets**
It is possible to sell directly to consumer, even if it will be rare, because the consumer has to buy the whole system.

Knowing the purchasing power of the Vietnamese inhabitants, they will not be able to afford it. This includes a lot of work and the return on investment is low.

**Companies**
The companies can be consumers when willing parts of the Dutch water treatment systems

Potential customers could be local firms, but also main companies that are mostly established in large cities.

**Local agent**
A local agent can be used, they know the market well and they can make qualitative researches about the potential and profitable customers.

---


4.3 Potential business partnerships

The step to a completely new market in a strange country might be quite big for a company. It is an option for a company to start working together with another company in the new market, a business partnership. It is possible to start a partnership with local companies in the water treatment sector, or with foreign competitors that are already supplying systems on the market.

Every company has its own objectives and strategy on how to do their business. The choice, motives and/or the need for the start of a business partnership varies from company to company. It is not possible to recommend companies for a partnership, this is a task for the companies themselves. The points of attention are described in this paragraph, so are the advantages and disadvantages.

Before starting a partnership there are several things to do before the actual start of a collaboration. There are several questions to answer before considering the start of the partnership:

- Are both parties on the same line? Do they have the same motivation and way of working?
- Do they share a vision, objectives, values and norms?
- Can both parties communicate well with each other, without getting arguments and needless discussions?
- Do both parties trust each other?

These questions are fundamental before starting a business partnership. So is the knowledge of both companies about themselves. It is important to check the background, history and financial part of each other. This is to prevent unexpected (financial) problems and disagreements.28

If the decision has been taken to start a partnership with another company it is essential to make a partnership agreement. In this agreement every single aspect of the partnership should be described very carefully. With such an agreement it is possible to prevent any internal problems later on, each party knows where they stand in the partnership.

The following aspects should be considered to cover in a partnership agreement:

- Investment of each party;
- Type of business and partnership (complete fusion, partnership in a specific market or department);
- Share of profits and/or losses;
- Division of the assets at the end of the partnership;
- Procedure for handling disagreements between both parties;
- Settlement for the death or working disability;
- Length of the partnership.29

Beside these steps every company can add more specific aspects for their partnership. A partnership between two companies has its advantages and its disadvantages. Advantages are the shared financial costs, (financial) risks, responsibilities, knowledge and skills, and network of contacts.

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28 http://www.businessknowhow.com/startup/partnership.htm
29 http://sbinformation.about.com/cs/bestpractices/a/aa030203a.htm
Disadvantages are partly dependent on the other, more need of communication which takes the risk of disagreements with it, and shared profits.\textsuperscript{30}

A nice opportunity for Dutch companies would be to work together with Veolia Water Solutions and Technologies. This is one of the largest companies in the world. They have signed some contracts in Vietnam but haven't really been active. They have offices in Hanoi and Ho Chi Min City but have not implemented a major project yet. It is a large French company which is well known in the Netherlands. If companies would approach them on time, it could turn this giant into a business partner.\textsuperscript{31}

There are also Asian players on the Vietnamese water market. An example is major Japanese trading house Sumitomo Corp. which wants to enter Vietnamese water management industry. They want to concentrate on water supply, sewerage facilities and water circulation systems.\textsuperscript{32}

An important project which included surface water drainage and wastewater treatment was launched in Hue City by the American company Black & Veatch. They collaborate with the Japanese International Cooperation Agency (JICA). On their personal site, Black & Veatch say : We value participation of diverse suppliers and subcontractors to enrich our ability to serve clients' business needs and meet their most complex challenges. This is a company which definitely has a lot of connections in Vietnam (they even have an office in Vietnam). It may be a possibility for Dutch companies to start a collaboration with them. It may turn this 'competitor' in a potential business partner.\textsuperscript{33}

Water treatment requires an elaborate plan, combined with good quality materials. For the current suppliers a research has been made regarding the companies that supply these materials. For Vietnam, Apollo Company Ltd is one of the biggest companies who is responsible for water analyses and instruments, water filtration, water conditioning, membrane processes.

\textbf{4.4 Competition}

In this analysis the competition is being described. In this chapter an overview of the market is being presented from an international point of view. These are all active companies on the market. For some companies it is not likely to become a partner. Some companies have potential for possible partnership. It depends on how they will be approached. This can be either as potential partners or as competitors.

The USTDA, also known as the Trade and Development Agency, has given a grant to help the Saigon Water Corporation (SAWACO) in order to develop a sludge treatment system. The most important aspect of this collaboration is the fact that CDM (engineering firm) was selected to provide needed technical assistance, American water

\textsuperscript{30}http://www.businessknowhow.com/startup/partnership.htm
http://sbinformation.about.com/cs/bestpractices/a/aa030203a.htm
\textsuperscript{31}http://www.veoliawaterst-sea.com/en/locations/1591.htm
\textsuperscript{32}http://e.maiwo.com/Business/Japans-Sumitomo-mulls-entering-water-biz-in-Vietnam/6916.html
\textsuperscript{33}http://www.bv.com/Downloads/Resources/Brochures/rsr.src_CON_SupDiversity.pdf
http://www.bv.com/Suppliers/
treatment technologies and solutions. A collaboration can be seen here between the American government and the Vietnamese government which both express themselves through companies such as SAWACO and CDM. Dutch companies have to understand that if they have the support of the Dutch government, it would be easier for them to enter the Vietnamese market instead of trying to achieve this as an individual company with no governmental help at all. Probably the Vietnamese market wants a kind of reassurance, which they obtain by using companies which are supported by governments.  

Another advantage which American companies have above others is that there is an American Chamber of Commerce in Hanoi which helps American companies to trade with Vietnam. This is a major advantage as the American Chamber of Commerce has knowledge of the Vietnamese market.

**Apollo Company Ltd**

<table>
<thead>
<tr>
<th>1. Water analysis and instruments</th>
<th>2. Water Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• quality testing, sensors and monitoring</td>
<td></td>
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<tr>
<td>• metering and logging</td>
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<tr>
<td>• sampling and controlling</td>
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<tr>
<td>• data analysis and interpretation</td>
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<tr>
<td>• laboratory equipment</td>
<td></td>
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<tr>
<td>• services</td>
<td></td>
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<tr>
<td>• Ozone generators</td>
<td></td>
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<tr>
<td>• Ultraviolet radiation</td>
<td></td>
</tr>
<tr>
<td>• Arsenic decontamination</td>
<td></td>
</tr>
<tr>
<td>• electro coagulation</td>
<td></td>
</tr>
<tr>
<td>• Ion exchange, softeners, scale reducing additives</td>
<td></td>
</tr>
<tr>
<td>• Algaeicides (An algaeicide or algaecide is a substance used for killing and preventing the growth of algae)</td>
<td></td>
</tr>
</tbody>
</table>

**Finance:** They are considered one of the specialists in the supplying of water treatment equipment so they are stable.

**Strategy:** One of their strongest points is the fact that they are equipped with a modern machine system which controls the quality of water.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>• filtration processes</td>
<td></td>
</tr>
<tr>
<td>• media and cartridges</td>
<td></td>
</tr>
<tr>
<td>• micro strainers</td>
<td></td>
</tr>
<tr>
<td>• Carbon Absorption</td>
<td></td>
</tr>
<tr>
<td>• micro porous ceramic elements</td>
<td></td>
</tr>
<tr>
<td>• backwashing</td>
<td></td>
</tr>
<tr>
<td>• Reverse Osmosis</td>
<td></td>
</tr>
<tr>
<td>• microfiltration, ultra filtration, nano filtration</td>
<td></td>
</tr>
<tr>
<td>• semi permeable membranes</td>
<td></td>
</tr>
</tbody>
</table>

**Enviro Engineering Corporation (EEC)**

<table>
<thead>
<tr>
<th>1. Water Filtration</th>
<th>2. Water Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• filtration processes</td>
<td></td>
</tr>
<tr>
<td>• media &amp; cartridges</td>
<td></td>
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<tr>
<td>• micro strainers</td>
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<tr>
<td>• Carbon Absorption</td>
<td></td>
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<tr>
<td>• Ozone generators</td>
<td></td>
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<tr>
<td>• Ultraviolet radiation</td>
<td></td>
</tr>
<tr>
<td>• Arsenic decontamination</td>
<td></td>
</tr>
<tr>
<td>• electro coagulation</td>
<td></td>
</tr>
</tbody>
</table>

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micro porous ceramic elements  
backwashing  
Ion exchange, softeners, scale reducing additives
3. Membrane Processes
  - Reverse Osmosis  
  - microfiltration, ultra filtration, nanofiltration  
  - semi permeable membranes

Finance: They are considered financially stable.

Strategy: The goal of Enviro Engineering Corporation (EEC) was to develop the business of the international environment market.

Background:
EEC is a corporation founded with the help of four companies: EBARA, Chiyoda, Mitsui&Co., and Toyo.
Provided the business program for a French developer called “Clean Development Mechanism”
Provided the study for Asia Pacific Economic Cooperation Secretariat (APEC Secretariat) called “Facilitating Trade and Environmental Protection in APEC” (www.apec.org)
Partnership with SEURECA – a French company specializing in water supply and sanitation (www.seureca.com)
Provided the project development plan for CARBONIUM - a French Carbon company specialized in small hydropower projects (www.carbonium.fr)
Provided a commercial and logistics assistance for TERMCOTANK (www.termcotank.ch) a Swiss Company specialized in bitumen {a mixture of organic liquids} distribution.

Golden Bridge Ltd Co
General Water Purification and miscellaneous:
- water supply and conservation  
- consulting  
- process engineering  
- operator training  
- support services and suppliers

Finance: They are considered financially stable

Strategy:
1. Their vision regards in-depth understanding of market trends, market opportunities, market competitors, and market obstacles.
2. Their mission is to help foreign enterprises in penetrating the Vietnamese market and developing their business. Another aspect would be the fact that they cover a wide range of Market Entry Services in Vietnam.
3. Their goal is to offer a partner in Vietnam which would help developing new businesses according to the company’s needs (project development, commercial assistance, logistical assistance, product distribution)
4. Their wide range of principles includes: combining both Vietnamese and foreign experts for better services, experience of the team is considered very important, strong network of relationships helps sustainable business.
**Background:** Golden Bridge was founded by two former partners at the French Trade Commission. Now, Golden Bridge is a member of both the French Chamber of Commerce and Industry in Vietnam.

**Green Eye Environment Co Ltd**

<table>
<thead>
<tr>
<th>1. Water distribution:</th>
<th>2. Water filtration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• rainwater harvesting</td>
<td>• filtration processes</td>
</tr>
<tr>
<td>• irrigation</td>
<td>• filter media and cartridges</td>
</tr>
<tr>
<td>• pumping stations</td>
<td>• micro strainers</td>
</tr>
<tr>
<td>• gates, valves, controls, armatures,</td>
<td>• carbon absorption</td>
</tr>
<tr>
<td>manifolds (a connector for water</td>
<td>• micro porous ceramic elements</td>
</tr>
<tr>
<td>filters)</td>
<td>• backwashing</td>
</tr>
<tr>
<td>• pipe work</td>
<td></td>
</tr>
<tr>
<td>• tanks</td>
<td></td>
</tr>
</tbody>
</table>

**Finance:** They are considered financially stable.

**Strategy:**
- Their mission is to provide certain services (supplying machines, equipment etc) that ultimately clean up and protect the environment.
- Goal. Help protecting the environment.
- Their most important principle is to use many methods which are not only effective and economical but also aesthetical and sustainable.

**Background:** Green Eye Environment (GREE) is a environment and water company established by the Department of Planning and Investment. The company is formed by people which were trained and instructed by REFINE program of Wageningen University – Holland. Wageningen University is one of the most important environment universities in the world.

**Green Field Consulting (GFD)**

<table>
<thead>
<tr>
<th>Water resources management:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• hydrologic engineering</td>
</tr>
<tr>
<td>• water shed (shed = line separating neighboring drainage basins)</td>
</tr>
<tr>
<td>• aquifer protection</td>
</tr>
<tr>
<td>• reservoirs</td>
</tr>
</tbody>
</table>

**Finance:** They are considered financially stable.

**Strategy:**
1. Their vision regards bringing together the right size team, with a good combination of skills, in a prosperous location, at the right time.
2. Their mission is to offer specialized solutions for development project that are scientific-based and market solution oriented.
3. One of their goals is to use their business system to provide practical and realistic solutions.
4. Their strategic goal is to ensure the success in the implementation of their clients’ projects.
5. Their principles regard working in a virtual team environment crossing geographical boundaries.

**Background:** GreenField is a research-based company that provides consulting services in...
rural development, water treatment in Vietnam and South-East Asia. They have a strong academic background of the team. In addition GreenField has an extensive experience in local knowledge which can be helpful for new entrants.

**GreenTech, JSC**

1. **Water filtration:**
   - filtration process
   - filter media and cartridges
   - Micro strainers
   - Carbon adsorption
   - micro porous ceramic elements
   - backwashing

2. **Water conditioning:**
   - Ozone generators
   - ultraviolet radiation
   - Arsenic decontamination
   - Electro coagulation
   - ion exchange
   - softeners
   - scale reducing additives
   - algaecides

3. **Membrane process:**
   - Reverse osmosis
   - microfiltration
   - ultra filtration
   - nanofiltration
   - semi permeable membranes
   - Desalination and demineralization
   - Electro dialysis, electrode ionization (EDI)
   - solar humidification, vapour
   - compression, distillation and evaporation

**Finance:** They are considered financially stable.

**Strategy:**
- Their vision is to provide quality services for a green future (green means eco-friendly environment)
- Their goal is to provide solutions for water treatment.
- Their principle regards green technology (eco-friendly)

**Background:** GreenTech JSC is a registered company since 2000 and it provides the concept green technology combined with quality management system. It’s the distributor for many international companies such as: Thermax – India, Qualichem – USA, Qualichem – USA.

**Huynh Lac Co Ltd (HLC)**

1. **Water analyses and instruments:**
   - quality testing
   - sensors and monitoring
   - metering and logging
   - sampling and controlling
   - data analyses and interpretation
<table>
<thead>
<tr>
<th>Laboratory equipment and services</th>
</tr>
</thead>
</table>

**Finance:** Huynh Lac Co Ltd focused on environmental projects as this kind of projects have a huge financial potential in Vietnam in the following years. It is financial stable.

**Strategy:**
- Vision: Combine more than 30 year experience of the staff with modern facilities
- Goal: Their goal is to continue operating in the water and environment sector both local and international.

**Background:** Huynh Lac Co Ltd was established in 2005.

---

**HydroScience Engineers (HSe)**

1. **Water distribution:**
   - rainwater harvesting
   - irrigation
   - pumping stations
   - valves
   - pipe work

2. **Water filtration:**
   - Filtration process
   - Filter media and cartridges
   - micros trainers
   - carbon adsorption
   - micro porous ceramic elements
   - backwashing

3. **Desalinization and demineralization:**
   - solar humidification, vapor compression
   - distillation and evaporation

**Finance:** From the financial point of view this company is stable.

**Strategic:**
Vision: They emphasize the need of advanced water treatment facilities, providing solutions to use treated water as well as using the water resources more efficiently. One of their goals is to provide water and wastewater consulting services at a international level.

**Background:** HSe was created to provide a local full-service office to meet the complex water and wastewater needs of their customers.

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**Institute of Applied Materials Science (IAMS)**

**General water purification and miscellaneous:**
- water supply and conservation
- consulting
- process engineering
- support services and supply

**Finance:** This company is financial stable.

**Strategy:**
- Their vision is to combine modern research methods with applied nanotechnology for an efficient doing research, developing and applying nanotechnology, organic materials, catalysis materials, photochemical materials, and oil additives.
- Their goal is to continue being successful in having into super purified water from sea water
- Their strategic goal is organizing trial manufacture and production of new products,
and applying advanced technology in order to be one step ahead of the competitors

**Background:** The company are known for is applying research results in life and production, manufacturing.

**PVC Environment and construction consultants Ltd Co**

1. **Water analysis and instruments:**
   - quality testing
   - sensors and monitoring
   - metering and logging
   - sampling and controlling
   - data analyses and interpretation
   - laboratory equipment and services

2. **Water filtration**
   - filtration processes
   - filter media and cartridges
   - micro strainers
   - carbon adsorption
   - micro porous ceramic elements
   - backwashing

3. **Water conditioning**
   - ozone generators
   - ultraviolet radiation
   - arsenic decontamination
   - electro coagulation
   - ion exchange
   - scale reducing additives
   - algicides

4. **Membrane processes**
   - Reverse Osmosis
   - microfiltration
   - ultra filtration
   - nanofiltration
   - semi permeable membranes

5. **Desalinization and demineralization**
   - electro dialysis
   - electrode ionization (EDI)
   - solar humidification
   - vapor compression
   - distillation and evaporation

**Finance:** With an annual growth of about 35% we can say that this company is financially stable.

**Strategy:**
- Their vision is ‘quality – effect – prestige’
- Their goal is to expand and emphasizing research on finding and invention of new technologies and specialized equipment

**Background:** They started in Jan 21, 2002 and they are members of VN WaterSupply-Sewerage Association.

**Waterchem JSC**

1. **Water filtration**
   - filtration processes
   - filter media and cartridges
   - micro trainers
   - Carbon adsorption
   - micro porous ceramic elements
   - backwashing

2. **Water conditioning**
   - Ozone generators
   - Ultraviolet radiation
   - arsenic decontamination
   - electro coagulation
   - Ion exchange
   - Softeners
   - Scale reducing additives
### 3. Membrane processes
- Reverse osmosis
- Microfiltration
- Ultra filtration
- Nanofiltration
- Semi permeable membranes

### 4. Desalinization and demineralization
- Electro dialysis
- Electrode ionization
- Solar humidification
- Vapor compression
- Distillation and evaporation

### Finance:
This company is financially stable.

### Strategy:
- Their vision is to supply the highest quality and products that could satisfy customers’ needs the best.
- Their goals are:
  - To develop the skills of its staff through international and local training
  - To increase production and business capabilities to achieve customer’s needs

### Background:
In 2009, DAS CERTIFICATION Ltd. Company stated that the Quality Management System of Waterchem has met the requirements of ISO 9001:2008 for the supply of water treatment solutions.\(^{36}\)

### 4.5 Branch analysis conclusion

<table>
<thead>
<tr>
<th>Companies/Players</th>
<th>Potential business partner</th>
<th>Potential customer</th>
<th>Potential supplier</th>
<th>Potential entrant</th>
<th>Competitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Resellers market</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- Institutional markets</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer markets</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companies</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Local agent</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table.13 Branch analysis conclusion

This table helps Dutch companies to gain insight in the actual participants on the market. This can be seen as a resumed Branch Analysis. All the participants in the Branch Analysis exist in this table and the reader can see whether the local agents represent only potential business partner, unlike the government who can be both a potential business partner as well as a customer.

An important aspect of this table relates to the companies, which represent the engine of the business (they can be potential business partners, but also potential customers, potential suppliers etc). It depends on the Dutch companies’ nature and approach whether they are one of the different actor categories.

5. Market Overview

In this chapter the gathered information is being processed to draw conclusions for the Dutch companies. An oversight of the market and the different aspects will be presented. With this information conclusions for the future strategy will be made.

5.1 External SWOT analysis

The SWOT analysis helps companies to focus on the most important issues. It consists of Strengths, Weaknesses, Opportunities and Threats. The Strengths and Weaknesses are the internal factors of the company and the Opportunities and Threats the external factors. This is an external analysis since the company for whom this is being written is not specific. From market perspective an overview is being presented. The following SWOT analysis contains facts which are related to any Dutch water treatment company who wants to penetrate the Vietnamese market.

**Strengths**

Dutch companies possess modern water treatment systems, compared to Vietnam. The companies can deliver parts for water treatment systems as well as entire systems. The Dutch are specialised in transport and distribution throughout the world. Dutch companies possess a large amount of knowledge regarding to water treatment. Dutch companies have a well developed pipeline network unlike Vietnam which has a local supply.

The Dutch companies have international business knowledge. The Companies have more funds, financial stability to do investments.

**Weaknesses**

Dutch companies which are active in the water treatment systems branch are not well known on the Vietnamese market.

It is difficult for Dutch companies to obtain sufficient information about Vietnam. The Vietnamese language is difficult and not much spoken in the Netherlands. Most Dutch companies are not supported by the Dutch government unlike the Vietnamese companies.

The Vietnamese business culture is different from the Dutch, this could make it difficult to do business abroad.

The country differs a lot from the Netherlands, as well as the local water supply. There are only local systems active thanks to the geographical climate.

Use of a highly developed water treatment network in the Netherlands, for a different geographical area in Vietnam.

**Opportunities**

Large market share which has not been obtained by any company. There is a need/demand for modern water treatment systems in Vietnam.
Turn competitors into potential business partners as a result of the capability of the Dutch companies to supply entire systems, as well as parts for the water treatment systems.
The growing population creates a growing demand of purified water. 
Vietnamese government can provide business knowledge.
Dutch embassy could provide business information.

**Threats**
The governmental regulations in Vietnam are insecure, there is no governmental stability.
The financial risks in the Vietnamese market is very high, therefore it is unlikely for companies to invest. The return of investment is in average low.
The competitors which are already active on the market.
American companies have an advantage with the representation of a chamber of commerce unlike the Netherlands.
Asian companies can easily adapt to the market which is more similar to theirs as the Dutch culture.  

5.2 Confrontation matrix

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>STRENGHTS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modern water treatment systems vs. large market share possible</td>
<td>1. Lack of knowledge of Vietnamese market vs. Vietnamese government collaboration.</td>
<td></td>
</tr>
<tr>
<td>2. Dutch water treatment knowledge vs. demand of Vietnamese market</td>
<td>2. Vietnamese business culture vs. help from Dutch embassy</td>
<td></td>
</tr>
<tr>
<td>3. Financial stability vs. requirement of entire systems</td>
<td>3. No Dutch support from the government vs. collaboration with the government as a consumer</td>
<td></td>
</tr>
<tr>
<td>4. Developed pipeline network vs. growing demand</td>
<td>4. Different Geographical areas vs. Adaptation of product</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREATS</th>
<th>STRENGHTS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial funds vs. governmental regulations</td>
<td>1. Dutch companies are not supported by the government vs. American chamber of commerce</td>
<td></td>
</tr>
<tr>
<td>2. Business knowledge vs. Financial risk</td>
<td>2. Lack of cultural knowledge vs. Asian companies can easily adapt the Vietnamese need</td>
<td></td>
</tr>
<tr>
<td>3. International business knowledge vs. currently active players</td>
<td>3. High financial risk vs. lack of knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Insecure governmental regulations vs. no support of the Dutch government</td>
<td></td>
</tr>
</tbody>
</table>

Table. 14 Confrontation matrix

---

38 Communicatiehandboek; W.J. Michels 2nd publication, Wolters-Noordhoff
Omgevingsanalyse: T. Klerks, 1st edition, Wolters-Noordhoff
5.3 Strategic issues & opportunities

**Strengths versus Opportunities**
The modern water treatment systems of the Dutch companies offer lots of possibilities in Vietnam. This is because of the lack of knowledge concerning water business in Vietnam. This combined with the large obtainable market share could be a great opportunity, which should be used when implementing in Vietnam. The knowledge of the Dutch companies is very welcome in Vietnam, the potential customers, of whom mainly the government is in a need for development. The country desires a growth in the market and therefore external knowledge is needed. Dutch companies are financially stable, with this assurance the risk of investing can be conquered. The market is in a need of entire working systems which provide the end product. This forms another opportunity for Dutch companies. The developed systems are a new item in Vietnam. The local supply, which they have nowadays might change in a system which corresponds to the Dutch supply methods. The growing demand of the future makes it possible to connect local water supply systems. This makes a entire network in the future possible, which can be offered by Dutch companies.

**Strengths versus Threats**
The financial stability is a possibility for Dutch companies to invest in foreign markets. The governmental regulations however, form a barrier to invest in the market. In order to invest properly companies should be very cautious, and work very precisely. The knowledge of business has been combined with the financial risk of Vietnam. As shown in the financial analysis the risk of finance in different terms is very high. This makes it unattractive to invest in the country. However this is for all companies implementing in Vietnam (not for American companies, which have a lower barrier to enter, not regarding the financial risk). So it might also be turned in a market opportunity. By having a good analysis possibilities are open. The international business knowledge can also form a problem towards the already implemented companies. The systems are mostly kept by the government, and a part has been bought from American companies. This makes the barrier to invest in Vietnam higher as well. Companies should be aware of this.

**Weaknesses versus Opportunities**
A weakness of Dutch companies is obviously the knowledge of Vietnam. The Vietnamese government is the biggest potential buyer. So a good collaboration with the government could be a great opportunity to compensate the lack of knowledge. The business culture of Vietnam differs as well. As shown in the analysis of this project a lot of knowledge can be gained. However another opportunity to get more market information might be to use the Dutch embassy. The etiquette described in the project gives an advantage when collaborating with the government. There is no support from the Dutch government, but the collaboration with the Vietnamese government keeps the potential to implement high as well. When collaboration with the Vietnamese government works out well, a long term business relationship is possible.

http://zakelijk.infonu.nl/marketing/3441-internationale-marketing.html
The different geographic area shows the Dutch companies that their product has to be adapted towards the market (local supply). The Dutch companies have a well developed system which could provide a good system in Vietnam as well.

**Weaknesses versus Threats**
The Dutch companies are not supported by the government, this combined with the advantage of American companies might cause a major problem. There is an American Chamber of Commerce which helps companies to implement. Dutch companies should be aware of this.
The lack of knowledge can be conquered as shown in the last topic. However Asian companies will still have an advantage when Dutch companies are implementing.
The high financial risk which Vietnam encounters forms a problem for Dutch companies. Combined with the lack of knowledge this might form a big problem for the companies as well.
When knowledge of the market is up to date, the risk will go down. the insecure governmental regulations combined with the lack of support from the Dutch government might form the last problem to choose not to implement.

### 5.4 Strategic options

<table>
<thead>
<tr>
<th>Option Nº</th>
<th>Strategic option</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Do not implement in Vietnam with water treatment systems.</td>
</tr>
<tr>
<td>1</td>
<td>Implement in Vietnam with water treatment systems, individual approach</td>
</tr>
<tr>
<td>2</td>
<td>Implement in Vietnam with water treatment systems, collaborate with the Vietnamese government</td>
</tr>
<tr>
<td>3</td>
<td>Implement in Vietnam with water treatment systems, collaborate with other Dutch/foreign companies</td>
</tr>
<tr>
<td>4</td>
<td>Implement in Vietnam with water treatment systems, collaborate with Dutch Embassy</td>
</tr>
</tbody>
</table>

- 1 option. The company works alone to get the highest market share, with a higher risk. This individual approach is not recommended since the market is insecure. This option can be combined with 2 and 4.
- 2 option. The company collaborates with the Government, highly recommended, because they could be partners, top customer, help the lack of knowledge of a company. This option can be combined with 1,3 and 4.
- 3 option. The company approaches the market with other Dutch/foreign companies, this makes the financial funds higher, the approach securer, the possibilities to serve the market of the perfectly adapted product. This approach is also highly recommended. This option can be combined with 2 and 4.
- 4 option. The company implements after getting more into the market, due to the received information from the embassy. This approach is not recommended because the insecurity will remain as high as when you work individually.

Option 2 and 3 are the recommended options. This project shows that the market approach of these options will work out the most lucrative for the companies. If a company wants to work individually it could choose option 2. If a company desires to have a secure basis with other Dutch companies (possibly a lower market share per company) it could choose option 3.
6. Strategic market approach

In the strategic market approach, the market’s entering strategies are being worked out. The goal of this chapter is to get an insight in the recommended approach of the market. This is based on the data, gathered in the analysis before. In the second part the preferred positioning is being described. This is a recommendation for the water treatment companies from the Netherlands who wish to implement in Vietnam.

6.1 Market entering strategies

6.1.1 Push/pull strategy

The Dutch companies will have to choose one of these two strategies. The pull strategy concentrates on convincing the end customer to ‘ask’ for the product. Marketing campaigns are used in order to convince the customer to buy the product. The push strategy consists of ‘pushing’ the product through the channel, to the clients. The most appropriate strategy for Dutch companies is the push strategy. The Dutch companies will approach the Vietnamese government or active companies in Vietnam and try to sell them their products.

6.1.2 Entering strategies

There are several market entry strategies, of whom the most appropriate one ‘for Dutch companies who want to do business in Vietnam’ is Exporting. Exporting consists of direct and indirect exporting. Using direct exporting means that the company exports directly to a customer who is interested in the products. Indirect exporting consists of selling to an intermediary. This intermediary will sell the products either directly to customers or to importing wholesalers. Out of these 2 strategies, direct exporting is the most appropriate for the Dutch companies. There are several advantages when using direct exporting; potential profits are greater because intermediaries are eliminated, the company has more control over the transaction, the company knows the customer and the customer knows the company (trust can be built easier), business trips are much more effective and efficient because there is direct contact with the customer.

6.2 Positioning

Positioning is a very important aspect for companies. A company that positions its product well, can achieve a distinctive place in the thoughts and experiences of the customer. There are 4 types of positioning:

- informational positioning
- transformational positioning
- two sided positioning
- implementation positioning

The most appropriate positioning for Dutch companies is informational positioning. This type of positioning is often used with products which are new or not well known. The specific advantages of the product are being emphasized. The Dutch companies can emphasize the advantages of the modern Dutch water treatment systems, in order to position the product successfully in the minds of the customers.
7. Market approach program

7.1 Product decisions

The recommendations for the product decisions depend very much on the range of the goods offered by the companies. The products where this report has been based on, are in the product description in chapter 3. The goal of this report is mainly to give an overview of the Vietnamese market, therefore no specifications are given. This to keep this fitted for a wider range of companies.

The companies that are able to deliver a total package to the buyer, have an advantage. This is obvious because the systems are highly innovated and adapted. This combined with older systems (of Vietnam) could give trouble. The customers would want to have a total product. As shown in the Strategic options a collaboration would make this product adaption easier.

7.2 Pricing decisions

A company should consider the internal and external factors first, and then set a price. There are different strategies that a company can implement regarding to the price.

1. Skimming: charging a high price for a product to achieve the highest possible contribution in a short period of time. In order to use this strategy appropriately, the product have to be unique and segments of the market have to be willing to pay the high price which is set by the company. There are some disadvantages: the company has a small market share and is vulnerable for local competition and grey marketing may occur. This is not recommended, because a long term relationship won’t be created.

2. Market pricing: The price of the product is based on competitive prices. This strategy can be implemented, if similar products already exist in the target market.

3. Penetration pricing: The product is being offered on the market for a low price in order to stimulate market growth and capture market share. If the main competitors also apply this strategy, then it may fail for the company.

As the Dutch companies want to be active in the Vietnamese market for a long period, market pricing seems to be the most suitable strategy.

On the other hand, if the water treatment systems of the Dutch companies are so unique, skimming may be applied. Thus it seems difficult to apply this as water treatment systems are long-term products.

Figure 5 Strategies for pricing a new product
7.3 Distribution decisions

Transportation of goods is possible in several ways:

- Road
- Air
- Railway
- Water
- Pipeline

Every type of transport has its own advantages and disadvantages. As can be seen in the graph above; the costs for transport by ship, per km, are the lowest in comparison to the other transportation ways. From the following graph can be concluded that transport by ship has a low risk of damage. This is very important for water treatment systems which are made of different materials. Furthermore, transportation by ship is very practicable.

The disadvantages are that it takes time to arrive at a destination and from the dock, the products have to be transported in another way to the customer. As the distance between the Netherlands and Vietnam is enormous, the best way of transport would be by ship or air. The advantage of a ship is that more products can be delivered at once and it is cheaper.

The Dutch companies have several possibilities. The products can be delivered at the Port of Rotterdam and from there to Vietnam, or to the Port of Antwerp (Belgium) and from there to Vietnam. The destination port will depend on the customer.

Inco terms

Inco terms are international terms regarding international transport of goods. Inco terms include the following 4 important aspects:

- The obligations of the buyer and the seller
- Insurances, permits, permissions and formalities
- The transportation to certain destinations (set by the buyer and the seller)
- The point where the costs and the risks are transferred from the seller to the buyer

For Dutch companies it is advisable to use the following Inco terms when doing business with Vietnam:

<table>
<thead>
<tr>
<th>Means of transport</th>
<th>Truck</th>
<th>Train</th>
<th>Ship</th>
<th>Plane</th>
<th>Pipeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Accessibility</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Variability</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Practicability</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Frequency</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Damage</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Costs</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Table. 15 Costs of transport

Table. 16 Methods of transport
**FOB: Free on Board (Named loading port)**

The seller takes care of the packaging, permits, formalities and delivery notes. The seller pays the necessary costs and is responsible for the goods until they are loaded on the ship in Rotterdam or Antwerp, for example. The seller has to make sure that the goods arrive at the port at its own costs and free of damage. From there on it is the responsibility of the buyer.

**CFR: Cost and Freight (Named destination port)**

This is one step beyond FOB. The seller is responsible for the goods until they are loaded on the named destination port.

It is advisable for Dutch companies to use these Inco terms, because they are quite new in Vietnam. These Inco terms divide the risks and costs almost 50/50 among the buyer and the seller. After a certain form of trust has been established among the Dutch companies and the Vietnamese consumers, other Inco terms can be used which are more advantageous or disadvantageous depending on what the Dutch company wants to achieve at that moment.

### 7.4 Payment decisions

There are different methods of payment:

- Cash in advance
- Documentary letter of credit
- Documentary collection or draft
- Open account
- Other payment methods, for example consignment sales

It is advisable for Dutch companies who want to do business in Vietnam to use a letter of credit at the beginning.

It is very important that the Dutch companies will have reassurance that their products will be paid by the buyer. If a certain trust has been established between the Dutch companies and the Vietnamese buyers, a different type of payment can be used which will be more advantageous or disadvantageous depending on what the company wants to achieve at that moment.
7.5 Communication decisions

The communication decisions differ per company and also on the available budget. There are some activities which are necessary and essential for the Dutch companies which are new on the market. First of all trade fairs and exhibitions should be attended in order to get attention from customers as well as other companies and get awareness of the Vietnamese market.

An example is the Watertech Vietnam 2011 trade fair which will take place from 16-18 March 2011 at Tan Binh Exhibition & Convention Centre in Ho Chi Minh City. This is a great opportunity which should be taken by Dutch companies.

Furthermore a decent website available in English and Vietnamese is essential. The company have to be reachable on the internet in order to be successful. Also catalogues and brochures are very important so customers can have an impression of what the company is offering. Other communication decisions have to be taken by each company individually after the budget and possibilities have been established.

It is also important for Dutch companies to have someone in Vietnam who communicates with the government and the embassy there. It have to be someone who is qualified for it and has knowledge of the market. It is important that the communication between the companies and the government/embassy goes well.39

Epilogue

Within the framework of the study International Business and Languages we wrote this market approach plan. During this assignment the communication skills have strongly improved, because it was compulsory to work with students from other cultures. Furthermore all the collected knowledge throughout the study had to be applied in this written report.

The process of making this report did not go without any problems. There were quite some difficulties in gathering and processing the information we have found, but in the end it worked out well. The main problem we had was that the assignment changed while working on it. Therefore we chose to keep this project mainly as an informing project in which the funds for approaching the Vietnamese market are shown. The approach chapters are the basis for Dutch companies to implement. This has been decided with the group and tutor.

We would like to thank our tutor, Mr. Van Oorschot for the help during the process. His personal influence made us think in the right direction to deliver the best work.
Enclosure

I. Size

<table>
<thead>
<tr>
<th>Regions</th>
<th>Population</th>
<th>Urban (32.7%)</th>
<th>Rural (67.3%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bac trung Bo (North central coast)</td>
<td>10,570,311</td>
<td>3,456,697</td>
<td>7,113,614</td>
</tr>
<tr>
<td>Dong Bac Bo (North east)</td>
<td>9,576,498</td>
<td>3,131,515</td>
<td>6,444,983</td>
</tr>
<tr>
<td>Dong Bang Song Cuu Long (Mekong River Delta)</td>
<td>17,591,470</td>
<td>5,752,410</td>
<td>11,839,060</td>
</tr>
<tr>
<td>Dong Bang Song Hong (Red River Delta)</td>
<td>18,939,299</td>
<td>6,193,150</td>
<td>12,746,149</td>
</tr>
<tr>
<td>Dong Nam Bo (south east)</td>
<td>15,799,377</td>
<td>5,166,396</td>
<td>10,632,981</td>
</tr>
<tr>
<td>Duyen Hai Nam Trung Bo (south central coast)</td>
<td>7,432,827</td>
<td>2,430,534</td>
<td>5,002,293</td>
</tr>
<tr>
<td>Tay Bac Bo (North west)</td>
<td>2,722,080</td>
<td>890,120</td>
<td>1,831,960</td>
</tr>
<tr>
<td>Tay Nguyen (Central Highlands)</td>
<td>5,315,135</td>
<td>1,738,049</td>
<td>3,577,086</td>
</tr>
<tr>
<td>TOTAL</td>
<td>87,946,937</td>
<td>28,758,871</td>
<td>59,188,066</td>
</tr>
</tbody>
</table>

Table. 17 Division of the population per region

II. Governmental regulations

Labeling and marking requirements

Regulations regarding the other products include:

1. A certain package in which the consumer is able to see the condition of the product and the following:
   - name and address of the importer;
   - amount, weight, volume, or size of the goods (in legal measurement units of Vietnam);
   - ingredients (including whether goods were genetically modified, where a preservative has been added, where a dosage has been stipulated, or where they are included in lists of stimulants or toxicants);
   - usage values, human safety standards, and environmental impact on use;
   - date of manufacture and expiry;
   - instructions on preservation and use;
   - origin of goods.

2. The labels that do not contain clear images regarding the substance/good inside are strictly forbidden. The letters should be clear and visible (with a certain size) This represented the basic requirement of Decision 178. All labels of intense circulated goods have to be written in Vietnamese. A text in a foreign language may be also present, but in a smaller size than the Vietnamese one. Labels of exported goods have to be written in the language
of the country where these products are sold. On the other hand, the imported goods should have a label translated in Vietnamese. This label may be printed in the original label or added later before going to the Vietnamese markets.

The following content constitute violation to the labeling law

- Circulation of products that have a label that doesn't correspond with the compulsory standards
- Labeling goods with false labels
- Labeling products with small characters, unclear text or label
- Labeling goods without including all the requirements
- Failing to meet the requirements regarding the pictures, size, language
- Erasing the label
- Replace tables or writing
- Using trademarks of some products that are already protected without consulting the owners
- Labeling with the same design as the products protected by law

To sum up, the Government regulations regarding trading do not differ so much from Dutch or other European regulations (For example in the Netherlands the label generally is in English and also in French). These regulations should not be considered as obstacles when doing business in Vietnam.
III. Reverse osmosis

This method is a 50 year old method for purifying water, which is mainly being used to purify sea water, since it contains a lot of salt. This method works with the semi permeable membrane, this means the water is being pushed under pressure trough the other part of the purifying system. Thanks to the permeable membranes in the system the salt is being separated from the water. It is the normal osmosis system, but then used the other way around (reverse) to purify.

Pros
- Will undo the water of fluoride (chemical)
- Less spilling than distillation

Cons
- Will separate the minerals, lead, manganese, iron, and calcium of the water
- The system cannot undo the water of chlorine and Volatile organic chemicals
- Unhealthy/tasteless water
- It will result in acidic water (bad for human health)
- 3 liters of waste water will turn into 1 liter of purified water
IV. Distillation

The heat source is the main item of this method. This method uses the boiling point of 100 degrees where the water will damp, while the boiling point of other contaminants is higher. The steam will evaporate. The key of this method is to keep the temperature constant in order to distillate in a perfect way. After the first separation the evaporated water will go to another system of tubes in another container. The steam will go back to its original form.

![Rectangular cart distiller](image)

**Figure. 9 Distillation process**

**Pros**
- Undoing the water of chemicals that have a higher boiling point than 100 degrees
- Unique method that removes bacteria and viruses out of the water
- Obtain pure drinking water
- For developing countries with drinking water problems
- Removes metal materials such as lead, arsenic,
- Removes mercury from water and hardening agents like calcium and phosphorous

**Cons**
- Removes minerals out of the water
- Doesn’t remove chlorine and volatile organic chemicals
- Heavily acidic water
- 80% of the water will be wasted (20% is usable)
V. Filtration

Filtration is the eldest and best option of purifying water. This method removes the most contaminants and is the most efficient technique of purifying water. The water flows in a filter. There are several stages of the filtering process, in order to purify the water to drinking water. The best filters have been made with carbon, possibly with other contents. One of the most important stages is the adsorption process, where the chemical parts can be separated of the rest of the water. In this process the bond of the molecules is broken. In every stage of the filtering process contaminants of the water will be separated.40

Pros
- This method is by far the most developed, this means stages can be placed within this process in order to get the perfect purified water
- The water retains the healthy trace minerals
- Removes chlorine, VOC’s (volatile organic chemicals)
- Doesn’t need an continuously energy source
- Very little waste
- Solid block carbon filters deals with all possible problems

Cons
- Not every system uses all good stages needed for good drinking water
- Slow filtration process

40 http://www.lenntech.nl/membraantechologie.htm
VI. Competitors information

<table>
<thead>
<tr>
<th>Apollo Company Ltd</th>
<th>Enviro Engineering Corporation (EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street: 8b/109 Truong Chinh</td>
<td>Street: 71/30 Cong Hoa, Ward 4</td>
</tr>
<tr>
<td>District: Thanh Xuan</td>
<td>District: Tan Binh</td>
</tr>
<tr>
<td>City: Hanoi</td>
<td>City: Ho Chi Minh</td>
</tr>
<tr>
<td>Country: Vietnam</td>
<td>Country: Vietnam</td>
</tr>
<tr>
<td>Telephone: (+84) 4 – 629 0090</td>
<td>Telephone: (+84) 8 – 3811 3441</td>
</tr>
<tr>
<td>Facsimile: (+84) 4 – 629 0091</td>
<td>Facsimile: (+84) 8 – 3811 5683</td>
</tr>
<tr>
<td>Website: <a href="http://www.apollo.net.vn">www.apollo.net.vn</a></td>
<td>Website: <a href="http://www.enviro.vn">www.enviro.vn</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Golden Bridge Ltd.</th>
<th>Green Eye Environment Co Ltd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street: Tang 3, Toa Nha 281 Doi Can</td>
<td>Street: 35Bis Phung Khac Khoan</td>
</tr>
<tr>
<td>District: Ba Dinh</td>
<td>District: /</td>
</tr>
<tr>
<td>City: Hanoi</td>
<td>City: Ho Chi Minh</td>
</tr>
<tr>
<td>Country: Vietnam</td>
<td>Country: Vietnam</td>
</tr>
<tr>
<td>Telephone: (+84) 4 – 3232 1073</td>
<td>Telephone: (+84) 8 – 3827 9706</td>
</tr>
<tr>
<td>Facsimile: (+84) 4 – 3232 1051</td>
<td>Facsimile: (+84) 8 – 3827 9707</td>
</tr>
<tr>
<td>Website: <a href="http://www.golden-bridge.com.vn">www.golden-bridge.com.vn</a></td>
<td>Website: <a href="http://www.greentechn.com">www.greentechn.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Green Field Consulting (GFD)</th>
<th>GreenTech, JSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Binh Minh Hotel, Rm 236</td>
<td>Street: 631 La Thanh</td>
</tr>
<tr>
<td>Street: 27 Ly Thai To</td>
<td>District: Ba Dinh</td>
</tr>
<tr>
<td>District: Hoan Kiem</td>
<td>City: Hanoi</td>
</tr>
<tr>
<td>City: Hanoi</td>
<td>Country: Vietnam</td>
</tr>
<tr>
<td>Country: Vietnam</td>
<td>Telephone: (+84) 4 – 3772 6250</td>
</tr>
<tr>
<td>Telephone: (+84) 4 – 2211 7800</td>
<td>Facsimile: (+84) 4 – 3772 6249</td>
</tr>
<tr>
<td>Facsimile: (+84) 4 – 3934 4111</td>
<td>Website: <a href="http://www.greentechn.com">www.greentechn.com</a></td>
</tr>
<tr>
<td>Website: <a href="http://www.gfd.com.vn">www.gfd.com.vn</a></td>
<td></td>
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<table>
<thead>
<tr>
<th>Green Field Consulting (GFD)</th>
<th>Hydrosience Engineers (HSe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Binh Minh Hotel, Rm 236</td>
<td>Street: 19 Nguyen Van Linh</td>
</tr>
<tr>
<td>Street: 27 Ly Thai To</td>
<td>District: Tan Phong Ward</td>
</tr>
<tr>
<td>District: Hoan Kiem</td>
<td>City: Ho Chi Minh</td>
</tr>
<tr>
<td>City: Hanoi</td>
<td>Country: Vietnam</td>
</tr>
<tr>
<td>Country: Vietnam</td>
<td>Telephone: (+84) 8 – 5412 2997</td>
</tr>
<tr>
<td>Telephone: (+84) 4 – 997 5477</td>
<td>Facsimile: (+84) 8 – 5412 3035</td>
</tr>
<tr>
<td>Facsimile: (+84) 8 – 997 5478</td>
<td>Website: <a href="http://www.hydroscience-group.com">www.hydroscience-group.com</a></td>
</tr>
<tr>
<td>Website: <a href="http://www.huynhlac.com">www.huynhlac.com</a></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Institute of Applied Materials Science (IAMS)</th>
<th>Waterchem JSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street: 1, Mac Dinh Chi Street, 3/F</td>
<td>Street: 5A-A12 TT Bo Cong An, Vong</td>
</tr>
<tr>
<td>District: District 1</td>
<td>District: Cau Giay</td>
</tr>
<tr>
<td>City: Ho Chi Minh</td>
<td>City: Hanoi</td>
</tr>
<tr>
<td>Country: Vietnam</td>
<td>Country: Vietnam</td>
</tr>
<tr>
<td>Telephone: (+84) 8 – 824 3506</td>
<td>Telephone: (+84) 4 – 3767 5894</td>
</tr>
<tr>
<td>Facsimile: (+84) 8 – 823 6073</td>
<td>Facsimile: (+84) 4 – 3767 5897</td>
</tr>
<tr>
<td>Website: <a href="http://www.iams.ac.vn">www.iams.ac.vn</a></td>
<td>Website: <a href="http://www.waterchemvn.com">www.waterchemvn.com</a></td>
</tr>
</tbody>
</table>
J. PVC Environment and construction consultants Ltd Co

Street: 78/69-71 Ba Van Street, Ward 14  
District: Tan Binh  
City: Ho Chi Minh  
Country: Vietnam  
Telephone: (+84) 8 – 3812 3493  
Facsimile: (+84) 8 – 5408 3902  
Website: www.pvc.com.vn
VII. Transaction risk

Risk calculator explanation

<table>
<thead>
<tr>
<th>Ex-Im Bank Exposure Fee Category (or by Country):</th>
<th>Select the country. This will be country where the buyer is located, unless the credit will be guaranteed and the guarantor is located in a different country.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Cover:</td>
<td>Select the percentage of cover. At this time Ex-Im Bank only offers 100% cover of the amount eligible to be financed under its guarantee, loan and insurance programs (i.e., up to 85% of the contract price).</td>
</tr>
<tr>
<td>Product: MT Insurance (2) or Guarantee/Direct Loan (3)</td>
<td>Select the product. Ex-Im Bank offers a &quot;standard&quot;/level 2 product (medium-term insurance) and two &quot;above-standard&quot;/level 3 products (direct loans and guarantees). “Standard” refers to conditional coverage and “above standard” to unconditional coverage. Ex-Im Bank does not offer a “below standard” product (i.e., no post-default interest payment). Ex-Im Bank has placed the direct loan in the “above standard” category in order not to compete with private lenders.</td>
</tr>
<tr>
<td>Repayment Period: (Years)</td>
<td>Enter the repayment period. This will be the number of years over which the loan will be repaid.</td>
</tr>
<tr>
<td>Drawdown Period: (Months)</td>
<td>Enter the length of the drawdown period. The drawdown period is defined as the time from the first drawdown under the Ex-Im Bank credit to the starting point of credit (i.e., the beginning of the repayment period which usually falls six months before the first repayment of principal). If the transaction involves a single shipment, the drawdown period is zero. In all other cases, enter the anticipated number of months between the first draw under the Ex-Im Bank credit and the starting point of credit.</td>
</tr>
<tr>
<td>Financed? (Y/N)</td>
<td>Exposure fee financed or not? In the past, most buyers elected to finance the fee. Selecting this option now, however, will result in a slightly higher fee.</td>
</tr>
<tr>
<td>Paid: Up Front (F) or As Drawn (D)</td>
<td>Exposure fee paid &quot;up front&quot; or &quot;as drawn?&quot; In the past, the exposure fee was payable &quot;as drawn&quot; (i.e., a portion of the exposure fee was due on each draw under the Ex-Im Bank credit). The new &quot;up front&quot; option results in a lower fee for those buyers willing to pay the entire exposure fee in a lump sum on or before the first draw under the Ex-Im Bank credit.</td>
</tr>
</tbody>
</table>

Table. 18 Risk calculator

Official explanation of the transaction risk rates

The rates are provided here. Transaction risk increment "-1" is for political only cover in the specified country. Transaction risk increment "0" is for: (1) sovereign risk transactions; and (2) any non-sovereign risk (public or private) transactions deemed to be no riskier than the sovereign in a specific country. Transaction risk increments 1 through 5 are for all other non-sovereign (public or private) risk transactions. Please refer to Ex-Im Bank’s Exposure Fee Advice Tables for guidance on the appropriate transaction risk increment for your transaction.  

IIIX. Export commodities

- **II. Export Commodities**
  - 1. Common information and amendment of L/C: [Free of charge + transiting bank fee (if any)]
  - 2. Formal information and amendment of L/C: [10 USD/time + transiting bank fee (if any)]
  - 3. Information of L/C transiting: [20 USD/time + transiting bank fee (if any)]
  - 4. Document receiving and treating: [10 USD/set]
  - 5. Export commodities document sending: [Arisen fee]
  - 6. Document discounting fee: [20 USD/set + short term interest rate]
  - 7. Checking under request of beneficiary: [10 USD/time]
  - 8. Document re-sending due to payment refusal: [Arisen fee]
  - 9. L/C payment: [0.15%, minimum: 20 USD, maximum: 150 USD]
  - 10. L/C confirmation: [particular regulation]
  - 11. L/C selling
    - + Domestic: [30 USD/set]
    - + Foreign: [100 USD/set]43

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Table. 19 Export commodities

[44](http://www3.ambest.com/ratings/cr/reports/Vietnam.pdf)
IX. Recommendations overview

Market overview

Concluding from the market overview 2 reasonable options have been developed. The most lucrative approach for the Dutch companies would be to collaborate with the Vietnamese government and/or with other companies which are interested to invest in Vietnam.

Strategic market approach

From strategic perspective, company recommendations have given as well. The Push strategy would be appropriate. To get into the market, an active participation has to take place. In order to gain market share with an acceptable risk direct exporting is recommended. An informational positioning is the most appropriate way of positioning for the Dutch companies within their potential market.

Market approach program

The product decisions depend on the company. But regarding to the market it is recommended to offer an entire system for the customer. There is not a lot of knowledge, so the customers will not use the modern equipment if it is inaccessible. Market pricing would be the recommendation regarding the business environment. Long term relationships keep the market accessible, this will be stimulated through close collaborations.

The distribution of the products depends on the companies possibilities, location and financial security. Therefore no specific method is highlighted. Shipment deliveries are mostly used for these kind of products. There are several transport modules, recommended is FOB and CFR. If companies are willing to take more risk for a consumer the trust will grow and a long term relationship will be more likely.

Another part of the market approach program shows that it depends on the trust that a company wants to build with their customer. If it is a single offer it is likely to take the lowest risk, since the financial risk of the country is already very high.

The communication decisions is the last part of the approach program. This consists at least out of visiting the Trade Fair, having a decent website and a local support. The local support from a Vietnamese business man is essential for the overcoming the entrance barrier.