INTERNATIONAL HELLENIC UNIVERSITY

School of Economics and Business Administration

Executive MBA programme

Coursework Cover Form

Name: Agelidou Sotiria **Student ID: 1101100002**	**Intake: EMBA 2010-2011**

Subject:

Dissertation Paper of Agelidou Sotiria

Title of Work: Assessing the potential for water supply into small Greek Islands (with several methods such as drilling, desalination or use of renewable energy sources in transporting water from the Greek mainland).

A Business Plan Proposal

Course Leader:	**Submission Date: 31/1/2012**

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I confirm that the work I have submitted is my own unaided work: V

Course Leader:	**Submission Date:**

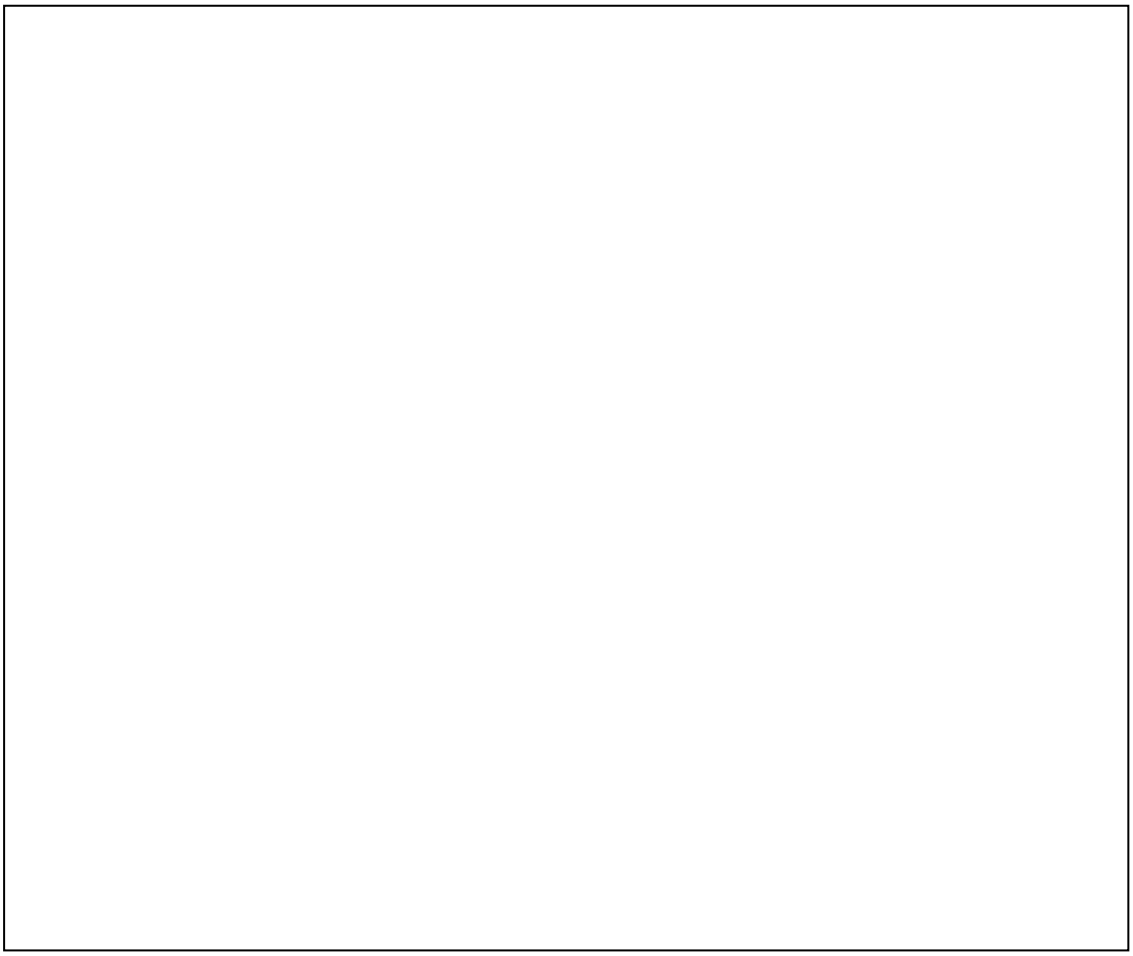
Marker's Comment:

Final Mark:

BUSINESS PLAN

Foundation of “POSEIDON”

(For a small Company for water irrigation in Ammoliani - Chalkidiki)



Agelidou Sotiria

(EMBA 1101100002)

INTERNATIONAL HELLENIC UNIVERISTY

TABLE OF CONTENTS

Executive Summary - Abstract

The main purpose of this project was to present to the reader a business plan for a small Company, planed to be essentially family run, involving a high level of national government (and EU) funding, which might attract potential investors in order to expand the "know how" and the expertise to other Greek islands which might face the same kind of problems. The significance of national and/or EU funding in rendering such small private investments feasible will be clear in the financial forecasts developed in the business plan.

It will try to underline the importance of a solution to an immense problem these islands and their inhabitants / residents are facing throughout the year.

In order to offer a simple and affordable solution with minimal cost in long term basis for the inhabitants / residents of Ammoliani island and/also in terms of logistics and furthermore create a high potential to attract services, such as consulting, installation and support to other, same kind, customers.

Other selling opportunities may arise in 'niche' markets that value more the functionality and the total cost of ownership for "Poseidon" and secure in a certain level the penetration to the respective market and place "Poseidon" ahead of the competitors.

Finally, it also implicates the importance of green and environmental management application not only by businesses as "Poseidon", but also how private households should think and act as they are influenced directly or indirectly in short or long term basis.

Literature review

I have used in this business plan various surveys, essays and reports (Eurostat, FTTA, etc.) in order to illustrate the importance of this problem throughout the world and especially in the Mediterranean region and why it is important to adopt a more environmental view without losing the focus of the sustainability perspective of any company (whether of public or private interest).

In addition, various guideline books were used in order to elaborate the various stages of business analysis and the importance of adopting an environmental and green management.

Last, but not least, I have largely used the guidance of a dear, retired Mayor-Teacher-Colleague, I have met during my stay at the island, who became a permanent resident of Ammoliani island from the 1970's, Mr. Markus Syrianos, who was more than 12 years the mayor of this island and region and had a life-long dream and aim to bring fresh water to this island, anyway possible. During his terms from the 1990's to the early 2000's, a fresh water pipeline constructed from the mainland to Ammoliani Island, providing at last the island with fresh water, without the need of a water wagon.

Sadly, Mr. Syrianos passed away early of February 2012 by natural causes, which makes me think very dearly of him and his achievements even more. I hereby thank him dearly and wish his relatives all the best.

Methodology

In order to observe how the residents of Ammoliani Island think about environmental and / or green management, I decided to conduct a questionnaire that consists of 15 questions and was distributed throughout the island on October – December 2011 (distributed twice, as I adapt, dropped and/or configured some questions).

I used four different types of answers: 1) I don't have any opinion, 2) I disagree, 3) I merely agree, 4) I absolutely agree, tick, as well as yes or no answer.

I considered the demographic characteristics of the respondents concerning: the location (island of Ammoliani), age and sex, their educational background, their profession and finally their income level, in order to have a picture of the personal characteristics of the persons responded.

The sample of respondents consisted of 207 inhabitants / residents of the island. The limitation of this research was that the sample questioned is small, because of the structure of the island of Ammoliani in Chalkidiki and the time of the year (in wintertime many inhabitants / residents move to Thessaloniki and are not available to be questioned).

Therefore, the results derived of this questionnaire **cannot** be accurate.

Anyway, the general conclusion is, that the inhabitants / residents doesn't seem to be aware or concern in general of environmental issues and are willing to pay any price in order not to care about shortness of water, or biological cleaning of wasted water in their own island.

Preface

One must think it would have to be enough for all - **water** is on earth more than to enough. However only a small part of it is suitable for drinking, most is too salty or too dirty.

In many regions of the world, clean drinking water is a precious property, for which someone runs every now and then kilometers away or, if it must be brought nearby in ships and tankers, etc., much money has to be paid. In the future, this problem might be intensified: The climate change leads in many places to droughts and let the deserts grow. At the same time more food than ever must be produced, because the earth population continues to increase.

Facing the dried rivers and seas, conflicts between the neighboring states is pre-programmed. You must not be an expert to warn of people migrations that are leaving their countries, before wars start for the water.

"More people are dying by the effects of dirty water than from AIDS, malaria and chickenpox all together ", explained Bolivia's Ambassador in Great Britain Pablo Solon past year before the UN-general assembly. The same general assembly that adopted a resolution, which grants on the world the right to clean drinking water to each human being, in July 2010.

But from where shall the clean water is to come? New, deep wells are only temporarily a solution: Where one of gel precipitation new groundwater does not form, resources are soon exhausted. Actually the only available resource on earth 'en masse' is seawater.

Technically seen the desalination[1] seems not to be a problem, but…

The most common procedure apart from distillation or the thermal demineralization[2] is the reversal osmosis. With this procedure water is been pressed through a diaphragm, which is impassable for any salts. “Round 50 million cubic meter of sea water are desalinated per day already in this way, with tendency rising. In four years the operators of this method expect a daily production of 100 million cubic meters of mostly freshwater, worldwide. Most of it flows into the agriculture, into the densely populated areas or the tourist centers - where the per-capita consumption is particularly high.

The demineralization on a large scale is not lasting, because it uses fossil raw materials, but it is relatively cheap: The large plants produce drinking water for a half US Dollar per cubic meter. ” For cities or resorts with power plants, into which the desalinated water can be fed, the industrial demineralization is an economically acceptable solution “, describes engineer Mr. Wieghaus of the Fraunhofer Institute[3].

Together with an international team from researchers, industrial representatives, potential investors and engineers in the European Union project ProDes has desalination been examined (to what extent also alternative energies can be used), in order to provide fresh- from seawater. The abbreviation ProDes[4] by the way stands for Promotion of Renewable Energy for Water Production through Desalination. For two years the researcher teams compared technologies, provided market analyses, examined financing models and developed strategies for the introduction of renewably claimant desalination plants.

The results are presented now: In general desalination plants with alternative energies can be operated - however not yet at a price, that would be competitive to the water winning with industrial plants. And nevertheless the renewable systems have a good chance on the market in opinion of the researchers. During the demineralization of the seawater is usually valid: The more largely the capacity of a plant is, the cheaper can be produced.

In many - particularly remote - regions of the earth, no large quantities of water are needed. Here the concern is to supply villages, which to a current are not attached to a water line network. A plant, which produces one hundred to thousand liters drinking water per day, is there more than sufficient. And in these orders of magnitude the renewable technology can compete already today with conventional technology: If for example we think of villages or settlements nearby deserts, in approaching very dry regions of the Mediterranean or think of very small islands in Greece, which are distant from the next larger city/port hundreds of kilometers, then renewable seawater - desalination plants are already today ideal.

But still, only those profit from pollution free techniques of demineralization, which can afford it. Where they were most urgently needed, the financial means are usually missing. Here humans are dependent on the assistance of governments and NGOs. “How fast the renewable water purification

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1 Demineralization = desalination (same procedure, described either way)

2 Demineralization = desalination (same procedure, described either way)

3 NGO Fraunhofer Institute Germany

4 Research of the EU and the Fraunhofer Institute NGO ISE 2007

interspersed, depends on how serious the authorities take the resolution of the UN-general assembly under consideration and make money available for the fact that each humans actually get, what they are entitled to theoretically: clean drinking water.

Orientation – Introduction

The issue of freshwater resources for small islands in Greece involves many of the problems countries having (or being) small islands facing in general, which means insufficient, in both human and financial, operational funds. Either way, small islands seems to have special physical, demographic and economic features, relatively limited surface areas and natural resource bases, such as cultivable ground and conventional sources of energy, much greater sensitivity to natural disasters as heavy winds occur throughout the year, as well as earthquakes and last but not least the isolation from the mainland.

All this contributes to the vulnerability of the freshwater resources. Small islands have a relatively limited capacity to store water for use in the dry season, and the construction of large reservoirs is often prohibited by the requirement to flood scarce land for agricultural purposes. In addition, decreasing more and more the storage capacity of dinking freshwater are heavy rainfalls, coupled with the steep topography of the islands, which can cause siltation, the scientific term of mud in the tanks of the water-reservoirs.

These islands therefore have a heavily dependence on groundwater resources that often exist as freshwater lakes bearing limited quantities of water.

As some can understand, such a big project as the water feeder of Ammoliani island, hide immense difficulties, that are owed mainly in the fact that it should harmonized itself with departments of conductors and various systems (not only in draining matters, but smooth cooperating of land-owners and government) of old and new, in order to function all together.

The dissemination of frames and concerns that are cultivated, because of the fact that the last years seems to be permanently a pre-election period, the effort of scorn and the belief that anyone possess the exclusivity of knowledge in all, led in the past any project of this kind to fall in the void. The austerity measures taken the last years did not helped ease the situation.

In 2005[5] was the submission of the initial project study for 6,8 mill. Euros. Unfortunately the financing was rejected. The same team drew up, immediately afterwards, a new drawing that could bring water to Ammoliani with expense of 1,5 Euro. Unfortunately this proposal was also rejected.

The last political decision was taken in 2006[6], finally to advance in any way the water feeder of this region, showed that the authorities have conscience of the difficulty of undertaking this project, but simultaneously of the responsibility they and all political parties have. Many inhabitants / residents state that the authorities waited for years in “search for finance” of this project, not willing to take the responsibilities and consequences of potential failure, but permanently protesting to anything the “others” propose, because of politics. The inhabitants / residents had the sense that the authorities left Ammoliani island, their inhabitants / residents and their hotels and pensions, in which hundreds of them are being employed, in the mercy of a water wagon, that came -many times per day- with the

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[5] By the municipal authorities, with help of the former finance deputy minister C.Pachtas, who is born in the area.

[6] Ironically on the 5th of June1999, was the initially grand opening of the submarine water pipeline from the mainland, by mayor Syrianos Markus, in Tripiti port.

ferry and which they have had to pay for, for years and condemned them in facing wasted and dirty water.

The majority of the Municipal Council then decided to take a loan of 800.000 Euros and finish the project, under strict surveillance (in order to maintain a smaller cost) with personal responsibility of a team appointed by the Mayor[7] in 2007. The state government afterwards and under pressure of Hoteliers of the region, decided to contribute in the financing of this project with another 600.000 Euros.

Finally, the new (submarine) water pipeline from the mainland to Ammoliani Island and other small cities in the area (Olympiada, etc.) was constructed by Greek and Danish architectures at 2007. The project was realized in a time record, as they manufactured 22 kilometers of pipelines and water network in only 6 months, something they did not in 30 years of facing this problem.

Ammoliani Island is still facing a problem, especially during the summertime, in which many tourists invading the island and a full capacity of the Hotels and pensions etc., increases the demand of fresh water ten times as much as in wintertime.

The pipeline constructed, can stand a pressure up to14 bar (as the constructor stated), but the actual pressure it can handle is not more than 6 or 7 bar (in summertime sometimes not more than 3bar). In certain points the 'new' network used the old one, that were already problematic and the existed pipelines were mainly of old central drivers and connections, that were of rusty metal. So because the new pipelines worked with higher pressures (which increased the escapes) they created fractures in the connections that should be replaced.

Facts about Ammoliani Island

The island of Ammoliani presents exceptionally complicated geographic morphology. Numerous factors affected this transformation during past geological centuries and they continue by this day to alter the morphology, as we can feel often by minor and major earthquakes, who caused the creation of high mountains nearby (in range of not more than hundred kilometers), lands of plains and capes of a lake with stagnant salty, marine water, so called "Alykes" (saltmarshes), consequences the attribute of the surname mountainous.

The different constitution of subsoil, the mountainous character, that have as a result the intense territorial bas-relief, the presence of roughly 3 tops, relatively nearby Mount Athos, with a height above 2.000 m, a major shoreline and the numerous peninsulas, forms the variety of natural landscape. Only the deserts and steppes are absent from her surface.

A remarkable fact for the island chronicles is the 1964/10.12.1991 decision of the Ministry of Macedonia & Thrace, with which the island of Ammoliani, was characterized a landscape of particular natural beauty and with this decision the island entered in new rhythm of economical growth (due to a special taxation status).

[7] Stated in local newspapers 2007 by M.Vlachopoulos, mayor of the major region

Legal framework regarding water resources

The framework that exists about institutional and legal matters regarding water rights in most of Mediterranean countries does not expedite juridical decisions and does not promote effective and efficient use of water. There is no EU regulatory framework, but in general (and it seems funny but all around the Mediterranean Countries examined, the facts are similar) the framework is un-precise, has many inconsistencies and vague articles, which need clarifications. A major deficiency is its failure to appoint a precise water owner with property rights. Water is declared a public or a common or a government property. This is a very ineffective and inadequate way to deal with this unique and most valuable commodity without taking the necessary legal steps to protect this commodity or to avoid misuse or exploitation by few or forming a monopoly with it. A common property is usually misused and wasted.

The institutional framework is very fragmented and complicated, giving executive powers to those that do not have the technical, administrative know-how and/or financial capabilities, neither the political and social weight allowing them to take the "right" decisions. The authority is very fragmented both vertically and horizontally by authorities and by sector of use, resulting to confusion, who is doing what, what are the powers an institution has, what is the extend of activities and which are the responsibilities and to whom.

One may say that there is no clear lines drawn in the water sector as to who is doing what and to what extend, meaning not only government but also local authorities and private investors (if there are few). There is no common sense approach to water resources management, and no authority in terms of government or municipal office to supervise and control the process. One ministry is responsible for domestic water supply, the other is responsible for the irrigation, a third is responsible for water pollution and water treatment, and possibly another is responsible for financing the works. On the operation level one authority is responsible for its operation and other for its maintenance and possibly another for billing and fees collection. Bureaucracy in its best terms and conditions…

Financing of project

There are limitations to the financing of water resources projects in general as a result of the ratification policies adopted by many countries/governments.

Continuing in the same manner as in the previous section (legal and institutional framework) financing any water project is usually provided by the central Governments for major projects and financing for local domestic or minor projects is done by the beneficiaries with minor subsidy by the central government.

Freshwater (desalinated or purified) is in general subsidized, at least the use of it when found, has a low income to the government budgets, and in most cases it is not given a priority. Financing of any kind of operation and maintenance of projects is not adequate due to the refusal of the beneficiaries to pay. Due to low water charges and to the inefficient maintenance of the works, large quantities of water are wasted or lost without any benefit to the government or private investors, if they exist.

Scenario of a sustainable development (the so called TREND scenario)[8]

Unsustainable water economy: Avoiding the creation of an unbalanced give and take between the demand and the supply of water, would have a negative impact on progress, while stabilizing all pressure on the natural environment at an acceptable level is a precondition to sustainable water economy.

Without trying to amplify management to any water demand, the present water economy in most islands is not sustainable, since it is supply oriented tending to satisfy current increases in water demand. Short-term development was achieved which created water needs but not sustainability.

Exploitation was a continuous process to satisfy increasing demand, ignoring environmental or wildlife demands and not imposing a water demand policy. The over-exploitation of surface and groundwater for many years has created water needs that cannot be met any further unless high investments by investors are made. But in the process higher water needs were created which finally could not be met, creating an unsustainable development.

Sustainable water economy: Managing in a good manner is simply determining a desirable situation which represents the objective to be met, in order to find using this objective, the ways and means that will allow the latter to be reached, that is to say, to deduce decisions to be taken at present.[9]

The core objectives of any water policies for a sustainable development would be avoiding to create an unbalance between the offer and demand for water, which would have a negative impact on development, while stabilizing pressure on the natural environment at an acceptable level.

Aiming of the management of water resource and demand

Regarding the policies on use of water compatible with sustainable development, demand management would be as important as the management of the resource or of the general offer. Such an objective would however require arbitration between the different contradictory objectives. This, for example doing by maximizing the productivity of the quantity of water allocated to all economic sectors and investing in water savings in agriculture, or maximizing the productivity of the quantity of water allocated to irrigation and preserves a minimum standard of living for the active rural populations.

Lastly, sustainable development policies would imply imposing environment preservation conditions in all trade agreements and delegations of public services to the private sector. This implies strengthening the role of the government as a regulatory body.[10]

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8 FFA-Mediterranean islands, DRAF REPORT for Greek island (as a major part of the Mediterranean)

9 See Mediterranean Vision on water, population and the environment for the 20th and 21st century by Jean Margat, Domitille Vallee

10 Implications by EU report on water resources, 2009, Brussels

Major Drivers in the Greek islands[11]

Education: Education means more understanding of the facts and awareness about the environmental needs including water. By no means education will be improved and higher education will become a part of islands life.

Environmental changes: With population increase in the islands, environment will be affected. Groundwater will be put under pressure. Climate changes will also play a role, worldwide.

Demographics: Tourism (which is frequently called Greece's "heavy" industry) is expected to increase mainly with pensioners. The pressure on the water resources will increase for domestic uses as well for food production. Urbanization most probably will increase in big islands where migration will take the form of tourism.

Economic changes: Economic changes are expected and will be brought by tourism expansion, which will encourage new investors to invest more. The water infrastructure will attract investors if conditions are made favorable. This will depend on the availability of the basic resources that includes water as a commodity.

Socioeconomic changes: As strange as it might sounds in these years of deep recession, poverty is expected to decrease. Such changes are expected in the islands where the impact of tourism will be decisive. Standard of living will rise and this will change the life style. The population demands in water will rise.

Water resources economy: Water is required for economic and social development everywhere and for this purposes it must be managed wisely, efficiently and effectively. Water on the islands is very limited and water-management must be made with the outmost care and must be considered both as an economic and social commodity. Water is a basic requirement and input to any activity. With the expected growth in the islands, water economy is a top priority and for this all means must be used.

Technological changes: The transfer and exchange of information having it's roots in the information technology will contribute to the improvement of the management of all resources including water. New technology will be used for water treatment, water demand application, for water desalination etc. These changes will be inevitable and will be driving forces for the improvement of the efficiency of the economy.

Framework for action

Ensuring social stability by preventing disruptions may rise between water supply and water demand is required. Therefore considering that many Mediterranean countries do not use the treated domestic effluents and instead discharge any kind of wasted water to the sea, water consumption for domestic can be reduced by **public awareness.**

11 FFA-Mediterranean islands, DRAF REPORT for Greek island (as a major part of the Mediterranean)

By introducing water saving fixtures within the house as well as by the implementation of irrigation systems and well efficient pipeline systems, the awareness can be educated.

Those are opportunities for employment in other sectors of the economy than in agriculture and tourism is considered a promising and not water demanding industry for the islands.

The strategic options proposed are the following:

- ✓ Adopting a water demand management approach aiming at limiting the increase and even lowering the demand in all water sectors through water saving incentives.
- ✓ Trying to improve water use efficiency of irrigation water and reducing losses in water distribution and supply systems, penalizing wasteful use of water and,
- ✓ Enforcing general education and public awareness on water value.

Water resources and water demand management

First assumption: Water demand management is as important as water resources management. This must be taken wisely into account in order to fulfill sustainable development.

Result: Water demand management and water resources management should be considered in the context of an ecosystem that is a part of the supply and demand system.

By evaluating the water demand for existing environmental, domestic, industrial, commercial and other uses we have to define the minimum and maximum levels of usage. The demand should not be simply related with in numeric figures, but different figures should be considered under different conditions of supply and different level of development. This is an exercise taking into consideration the future development of the island, considering the social, economic and environmental constraints, especially under conditions of water being the major limiting factor.

Water: a commodity or a precious property?

Imagine a game:

Each player is required to act in a leading role: the public, the private investors and the government. Each and everyone are very important and play a critical role. In order to create a blockbuster game, all players have to perform the directors (the environment: which is finally the main winner) vision of an ideal future: where water is a precious good and a real social and cultural revolution must be gain by fight, so it (the fight) changes the methods of the ruthless government, managerial and the private sector in the way of operation and alter the consumers behavior.

To the central challenges of our game belongs from this point onwards: the lasting supply of the population with drinking and industrial (fresh-) water, the reduction of the water contamination and the protection of the water circulations. By solving the water problem there will be a change on a further problem field, poverty, which can moderate hunger, diseases and environmental impacts. In the end water will play an elementary role also in regard to the power supply and for this the players are going to need an even larger quantity of this.

Tips for winning the game:

- ✓ Minimization of the water consumption: In the sense of lasting handling resources water it, independently of its quality, should be saved or its use be ideally completely avoided.
- ✓ Maximization of the availability: Only if the water reserves are in time regenerated and for the receipt of the water circulations are provided, resources water can be used on a long-term basis. Basic ideas of this strategy beginning are all measures, which lead to a better availability of water. (e.g. the one who at the end adopts functioning water and climate protection and the purposeful enrichment and redevelopment of groundwater, wins).
- ✓ Technologies to the water purification and water winning: An analysis of the potential of markets shows clear growth rates, among other things with the diaphragm procedures, the water demineralization, the biotechnology and in the nanotechnologies. A particularly large potential is granted to those.
- ✓ Reducing drug arrears and endocrine effective substances: Particularly persistent organic compounds, like e.g. Drugs and their Metabolite, Steroid and disinfectants are enriched in waters. Individual substances can remain over decades to a large extent invariably in the ecological system, as was shown on the basis of Barbiturate. The researchers could prove that a large number of representatives of this material class in the groundwater as long as forty years. Steroid hormone and also pesticides can exert and endocrine work influence on the human hormone system.
- ✓ Climatic changes: It is considered meanwhile as secured that no one can prevent a global temperature rise and that all players are to be regarded very probably as main causers. Scenarios, which describe the future climate, are however non-uniform. Anyway, anyone who can provide the most extravagant methods, gain most of the winning points.

Generally spoken at the end it's in everyone's conscience, how to handle with water. No one can win or lose as in this game as any player depends on the other and all eventually will have a gain by playing by the same rules.

Business Plan for «Poseidon»

Background

As described above the role of a Company implementing water solutions and / or setting a purification plant in Ammoliani Island and its market orientation in terms of quality provided and sufficiency/sustainability in long-term basis, can be seen to be particularly important for the micro- and the macro- economy of this local community, as well as for the national economy.

Simultaneously, in times of high unemployment, austerity measures taken by the Government and – most important – difficulties to find financial solutions, the potential for a small investment in this sector can provide solutions while also building a "high quality" product and "know how" of extreme importance in future aspects, seeing under the 'green development' microscope.

The ‘Poseidon’ Company

The idea was formed by three brothers, which are honorable and respectable members of a small society that are constituted from and by four big families in the island of Ammoliani (these are members of one of the big families). Money seems to be no subject, but is scarcely handled by all of them.

They seem to be very enthusiastic by the innovative idea formed in their minds and since all of them have studied in respectable fields, they are very confident about the success of such a Company.

This newly formed company will have its chief capital assed in a property of 4sq km land, in the small island of Ammoliani, not nearby the sea (in order to prevent hesitation of ecological pollution). The property is lying westwards over the sea and has access to the sea by a natural port formed nearby but access to the beaches is difficult, since they are on the eastward side of the island. Consequently, this property has all the advantages of a piece of land needed for this kind of Company.

More important, definitely, is the fact that this part of the island is a non-touristic-oriented location, and so there will be no protesters within the population against a non-touristic Company.

The facilities needed (for desalination and water cleaning) will be built within the property and the needed equipment will be bought by a Company found in Sicily/Italy, which provide the essential “know how” and equipment.

The Management Team

The management team is comprised of three family members, each of whom brings a high level on enthusiasm, excellent economic and technological knowledge (two of them studied in the University of Athens economics and mechanics) and perfect social skills and acquaintances with the local authorities, since the one is a local politician and the family is well known in the area. All three are co-owners of the original property, since they are brothers.

The person who will be employed in full-time basis will take the lead role within the establishment. The same person will operate and promote the company. As mentioned before excellent social skills and a strong network of contacts within the local authorities, will be ‘exploited’ for an initial financing proposal to the Bank and the EU office for helping newly appointed Companies and also issuing the needed permits of a trading license. Excellent knowledge of EU regulations and UK contacts can be provided, since this person has studied in the UK.

Equal contributors to the vision behind this Company are the other two members, who will provide administrative support and new ideas and knowledge to keep the ‘product’ proposition fresh and to increase the potential and so on the total revenue.

The expertise of one of them covers technical and engineering matters of importance to the construction and continual improvement of the Company’s infrastructure. All members of the team have excellent knowledge of the Greek and English language.

Additional specialists in administrative support will be sought from external collaborators in elements such as accountant, tax advises and legal matters.

Poseidon's Target customer

The main Customer that benefits in the beginning can and shall be the resident of Ammoliani island and/or the nearby cities in the mainland.

But market indicators, discussed above, support this company's premise that there is a huge niche market of customers beyond the island of Ammoliani that appreciates this particular 'know how', so they can export the knowledge within Greece and beyond.

Valuation methods for "Poseidon"

"Poseidon" will be regarded as a start up company with none, or very few related and/or similar companies in the Region. So there can be a strong debate in terms of valuating this firm the most proper way. The most usual way to determine the terminal value and post-finance company value of a start-up company, from the literature review provided, is the "Venture Capital Method" (VCM). There are other ones (and most probably would be a wise choice to be used by me) that can be run simultaneously to provide additional insights in the valuation process for more accuracy, but…

Innovative ventures have the characteristics of negative cash flow and earnings, especially in the beginning of a newly formed company and this for a significant amount of time. But then the expected rewards are of extraordinary size. Nevertheless many problems arise when valuating this kind of companies in this early stage of operation. The majority of the company's value lies in the future. VC firms (and in the textbooks) support that valuation is a very imprecise art, especially here, in this case.

This is due to the questionable validity of the data provided (or given by a company), so that traditional valuation methods and comparable sizes simply do not work at all. This seems to be a dilemma and in this situation any investor (bank, private investor, etc.) rely on the VCM.

According to Engel[12], this method is proved to be very successful and a useful technique to deliver a rough estimate of the current value of this kind of future-oriented but very uncertain business and investment. The reality approach of this method, in which the perspective of the investor is taken into account instead of rely on the company's perspective is largely used among venture capitalists, business angels and other kind of private investors.

Engels Basic VCM (2002)

1. First a terminal value (V_t) of a company is estimated for the time of disinvestment. The multiples (comparable companies) will be used. Depending on various factors like the expected financial situation of this start-up business and the kind of industry this business operates, the appropriate comparable should be.
2. The terminal value is afterwards converted into the present value (V) by applying a comparably high discount rate (r) agreed by the investor. This is the so-called 'post money valuation', that means that any investment by the investor (I) is included, for example the calculation of the

[12] VCM by Engel, 2002 and Johnson, 1997

value of this company one minute after the initial investment has been made. The way of preceding this is to concept of internal rates of return (IRR), or the framework that works with the net present value (NPV).

3. The ownership fraction (F) that is demanded by an investor is set by the ratio of the amount of his investment (I) and the present company value.
4. (No need to in this case, but just for the facts:) If we talk in terms of shares this has to be set in relation to the number of total shares (existing shares plus new shares to be issued by the investor). The price of these shares results from dividing the amount of the investment by the number of shares being issued.

Before we start any evaluation process, we should examine the business stage of any new venture, because one Investor has a different expectation that another, related to the risk one is willing to adopt by his capital. At the time of investment, valuation is the core to determine a return for the Investor.

In plain words the return to the Investor is based on the increase in the valuation of the money spend.[13]

This leads to the thought that when an Investor expects to receive from his investment in a start-up company more than he actually does, then the financial analysis that contributes to the expected return was not monitoring well and value added activities overvalued by the Investor or the company.

At this point it should be clear that it is crucial for some to understand the process of strengths and weaknesses of the VCM, so that different assumptions can lead to different evaluation results and interpretations.

Market (SWOT) Analysis

The Background to the Product Proposition

A quick overview of the standard SWOT analysis is useful in so far as it identifies the logic behind the product proposition, or if indeed lack of logic will determine the contra productivity and success of this proposition (it will show if this proposition is not keeping up with the reality).

Although there is a sharp division between strengths and opportunities or weaknesses and threats, in practice it is not as clear and important as in theory.

Nevertheless all elements presented here are in the perspective categories in a convenient way of outlining the context of this product proposition.

Strengths

- ✓ Location (island of Ammoliani). Very close to the mainland, therefore accessible without high additional cost.

[13] Howe (2002) Theory of FCF

- ✓ Market positioning: Innovative idea, high demand and possible 'niches' in the national market, high market expertise.
- ✓ Availability of experienced staff (though at the beginning untrained).
- ✓ High potential for domestic, local partnership cooperation through wide spread demand and need of fresh or desalinated (drinking) water in big Hotel complexes nearby.
- ✓ Strong management commitment to developing partnerships.
- ✓ Ironically the global warming, since the need of freshwater increases.

Opportunities

- ✓ Improving transport infrastructure facilitating access
- ✓ Increasing local and nationwide awareness of the water problem in small islands and tendency to seek for new solutions nearby.
- ✓ Increasing local awareness of the importance of the environment.

Threats & Weaknesses

- ✓ The relatively new (underwater) freshwater pipeline, provided by the Government.
- ✓ The deep recession Greece is currently facing
- ✓ The lack of finding funds. Banks do not provide new entrepreneurs with loans as they use to do a few years back.
- ✓ General local indifference on environmental matters. Although there are signs of growing awareness and organized action to develop, there is little evidence of a general concern for the environment. Waste and leftover of building material are still dumped over cliffs, into the sea, etc.
- ✓ Lack of coordination of the local and national authorities, organizations and residents.
- ✓ Poor understanding for the 'new infrastructures' and opportunities that arises from them.
- ✓ Increasing cost of loans, decreasing permits on EU-funds provided to new entrepreneurs.

Some of these elements can be used or anticipated in the strategies and policies implemented by every individual entrepreneur.

Some may need more concerted action and again it is a matter of each and every new entrepreneur to participate in collective bodies.

Greece's General market trends

As a small business at start up in an renewable, green and innovative industry, who is been giving limited resources and funding with which to carry out or commission a focused investigation of the local and national market concerned, one must rely on the reports and presentations available from professional bodies, their conferences and publications and specialized equipment.

Very localized statistics, although essential for an analysis of the market 'concerned' or 'available', may not provide information on trends in customer preferences, etc., unless the business is located in a prime island, such as Lesvos, for which more analytical information might be available.

Once established, the Company can start collecting a certain amount of data from its customers and through their feedback and the selling options and trends keep track, parallel to widespread information resources, of impacting and impending changes.

In the context of the general market, pointers (so called drivers) are the first point of reference. The characteristics of the trend in renewable water sources, desalination, etc., as noted by the experts of the EU statistics department, are a good indication of a market trend (if we can call aiming to start a desalination company a trend).

In summary, the message of the experts, against all disillusioned questionnaires and obvious observations, is that the trend for 'green' and environmental concerned practitioners, companies and products must develop in offering of high quality products and services, differentiated from the specific target sector, in order to obtain sustainability.

Targeting a specific market

The particularity of nature and the object of the Company are obviously targeting a specific market. The selection is given and the particular statistics are vital to the decision on targeting the specific markets.

Usually, the importance of using statistics that are as focused as possible, becomes very clear when we make as comparison of Greek national statistics and those made for a specific region and/or particular landscape.

But apart from market trends (green energy, focus on the nature etc.) in terms of numbers, an important factor in assessing potential markets are the willingness of inhabitants/residents to pay for services (e.g. change of thinking: water is cost free and always available). Pricing strategy will aim to alleviate this tendency to a certain extend.

The final indicator of interest discussed here in order to find (identifying) appropriate target markets is the distribution of freshwater in other nearby (or not) located areas of interest. A target market whatsoever must also be accessible for being a good prospect, given the financial constrains and limiting the choice of distribution channels for our Company.

Promotion and distribution channels

<u>The Internet and the target markets</u>

A desalination of Water Company (producing freshwater) at set-up is likely to have limited funds from the beginning, especially for promotional purposes. On the contrary, the dramatic increase in use of the Internet, if only used as information source, has opened a distribution channel to all but even more to small Companies with specific products, which are much closer to a level playing field than channels using more traditional media.

Designing a specific website is essential in order to distribute, primarily as a source of information. Since the cost of using it, as an information channel only, is small, but it seems to be a wise choice of distributing. Moreover as the initial contact for information can be used to build a company-buyer relationship, which the impersonality of the Internet precludes.

Last but not least, the designed website must be optimized, having a search engine optimization in mind. Paying for being a first option in a search engine seems to be wise-spend money.

Traditional advertising will not be used, as the Company is too specific to attract any focused target group. Where appropriate, participation in national and international exhibitions will be considered.

Pricing of the product

Finally we check the difficult sector of pricing policy. The price should represent not only the relative cost of any product offered, but also more specifically the entire value proposition offered to the buyer (client). The price itself becomes part of an image creation process. Last but not least, having the specific product (freshwater) in mind, it is obvious that there is a limitation in the pricing norm in the specific market. In anyone's mind, the suggestion of paying for freshwater seems monstrous. There must be much marketing work to change someone's mind.

FINANCIALS

Employment positions created

The Company will employ throughout the year helping / administration personnel of at least three persons. Giving the legal form that the Company will take, as a private limited Company, with subsidies of the Government, this cannot be count as a big, unnecessary expense. Anyway, in the future, success provided, this plant might be a grand employee for this area, creating jobs, much needed for the area.

General Funding

As in the most developing projects and Companies, own Capital available here is very limited, especially in liquid form. The latter comes to approximately 200.000 Euros.

The non-cash asset of the Company consists of the property itself. The assessed market value of this property is approximately 280.000Euros.

The Human Capital devoted to this Company is also an investment. This investment, however, cannot be included in any official income sheet nor any balance statement, but it can perfectly be included in the net present value and evaluation of the proposal by accounting of a cost of lost income.

This project can only be viable if it receives a significant amount of funding through subsidies, either in the context of EU Operational Program funding, or through national development funding (e.g. Law 3299 of 2004), which are very limited, giving the extreme recession and cash flow shortness we

(Greece) are facing nowadays. In the absence of any new development program, the conditions of the latter are still holding. In plain words this means a minimum provision of own capital of 25% and a maximum grant contribution of 60%.

Assumptions for final costs

The estimated cost of the initial construction investment are 230.000Euros, including all design costs. Investment in equipment and appropriate maintenance costs are estimated at (plus minus) 270.000 Euros.

The equipment is regarded normally as inventory, but I would count them in the fixed assets box in the financial tables (if I would design them). To balance the sheet, depreciation will not been added to operating income in estimating FCF to Firm for the evaluation of the proposal. Depreciation will be handled as an element that should be retained from earnings precisely to cover replacement costs.

Having the above assumption in mind, inventory will be taken as effectively zero at the 1st and last of the year, since the major activity of the Company would be in autumn and summer months.

Estimated revenue

By setting a specific pricing policy, based on market rate (which are very hard to find, since they are no comparable Companies anywhere in Greece or nearby Countries that state their pricing policy) and the product proposition, the only way to estimate realistic the revenues is to estimate the likely selling rate of freshwater provided to a certain clientele (compared to the government pricing policy) as to residents and/or Hotels etc., based initially on average prices of boiled water soled in the stores. There are no statistics available (as mentioned before) for the region, not even for any other region, but only for parts of the Mediterranean, given by the Eurostat.

Worst and best case scenarios can only be very vaguely estimated. The latter will be used only when examining the financial results for the whole business proposal.

Financial pro forma statements

The estimates of usage throughout the year provide a pretty much accurate income flow for the first; let's say, five years.

The resulting cash flow forecast for a year of construction period and the first five years of operating are providing revenues almost solely from the capacity and usage of the freshwater provided. I did not make any attempt to estimate income from further sales (e.g. 'know how' to other islands, etc.) or from other potential activities, such as draining and cleaning the wastewater out of the local ferries, etc.

As an alternative, the business proposal can be evaluated by calculating the IRR on capital, which would be more appropriate given the size of the Company. The results would be highly positive: for example the hurdle rate or the expected risk would be high to make such a proposal unattractive.

Keeping in mind the assumption on non-growth on the perpetual income stream version, this results in the salvage value (as an alternative).

Financial robustness

It is of high importance to assess the sensitivity of the business proposal to changes in some variables might consider outside the management control.

This sensitivity analysis will consider the vulnerability of the project finances to lower sales and to difficulties arising from lower funding of EU or any kind of National Funding Programs.

FINAL CONCLUSION:

By looking at a growth in the market of Demineralization.

More than one billion humans worldwide do not have an entrance to clean drinking water - tendency rising. Worldwide more and more countries put their hopes on the demineralization (desalination) of seawater. In particular in the agriculture sector, as up to 70 to 80 % of the water consumption is needed in this key sector.

In individual cases a desalination plant may be meaningful. However, before someone goes to a development on a large scale, careful handling of water resources for humans and nature seems the more efficient, better and cheaper way.

Some may carefully examine, before a plant is planned and built, all options of water saving in the agriculture, if and which of the water supply nets can be redeveloped and also the possibility of using prepared wastewater.

At present, worldwide more than 10,000 plants are in work for seawater desalination[14]. They produce day after day about 31 million cubic meter of drinking water. This would be enough, in order to supply approximately half of the European Union citizens with fresh water. The growth potential of this industry is enormous. Worldwide the governments count on a duplication of this capacity until 2015. Outriders are Mediterranean countries such as Tunisia, Morocco, Spain and Greece.

Some may say: But that is only one illusory solution.

To this result came a 2007 WWF Germany report, which searched the possibilities and the question if there are borders of the water winning from the sea.

" Although 95 % of water resources of our planet are in the world seas, the demineralization is still very expensive, energy consuming and lead to fatal ecological side effects ". Martin Geiger, director/conductor of the fresh water range of WWF Germany summarizes with these words the results of this report.

" With the desalination plants the problems grow. Large plants need so much energy that one must build its own power station beside it, to make in the reason equal. That leads again to an increase of the greenhouse gas output and contributes to the climate change and thus in the long run increasing

[14] WWF Germany report 2007

drought in many areas. In addition, this concludes that the enormous industrial plants ruin large coastal regions and the salt that has been withdrawed, is returned again to the sea as brine at the end. Thus change the content of the salt of the sea, which has negative consequences for the fish existence, as well as to the coral and aquatic plants. Also the water supply for poor Nations will not improve according to our (the WWF) estimate by the demineralization of seawater. Even more in dry countries as for instance in the Mediterranean area, water is merciless wasted. By drilling in a wide range a considerable portion of the precious property seeps unused to the ground", Martin Geiger describes.

In times of crisis, the success of any Company will be measured by how accurately we can predict market trends in terms of product evaluation and size expansion and thus make the necessary allocations to ensure a long-term survival and profitability.

In the current conditions of economic austerity, any market will surely not expand. On the contrary and most probably it will reduce noticeably in size. In order to survive in any market, some need to stay ahead and provide better solutions, at lower prices. This can only be achieved by proposing smarter solutions in terms of including more consulting services. Time will show.

APPENDIX 1 – QUESTIONAIRE

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

Το παρακάτω ερωτηματολόγιο είναι απολύτως ανώνυμο και μέρος μιας μεταπτυχιακής εργασίας με θέμα «Ανανεώσιμες πηγές νερού σε μικρά ελληνικά νησιά. Ευκαιρία για νέο ξεκίνημα;» Παρακαλώ απαντήστε με ειλικρίνεια. Οι απαντήσεις είναι προκαθορισμένες με ΝΑΙ ή ΟΧΙ, με απλό τικ Χ στο κατάλληλο πλαίσιο ή με διαβαθμίσεις από:

1= δεν εκφέρω/δεν έχω γνώμη **2**= δεν συμφωνώ

3= συμφωνώ εν μέρει **4**= συμφωνώ απόλυτα

ΦΥΛΟ: άντρας □ γυναίκα □

ΗΛΙΚΙΑ: 18-24 □ // 25-30 □ // 30-39 □ // 40-49 □// 50-59 □ //60-100 □

ΜΟΡΦΩΣΗ:

ΔΗΜΟΤΙΚΟ □ ΓΥΜΝΑΣΙΟ □

ΛΥΚΕΙΟ □ ΠΑΝΕΠΙΣΤΗΜΙΟ □

ΕΠΑΓΓΕΛΜΑ:

ΙΔ. ΥΠΑΛΛΗΛΟΣ □ ΔΗΜ. ΥΠΑΛΛΗΛΟΣ □

ΕΛΕΥΘ. ΕΠΑΓΓΕΛΜΑΤΙΑΣ □ ΣΥΝΤΑΞΙΟΥΧΟΣ □

ΑΛΛΟ: _____

ΕΡΩΤΗΣΕΙΣ (απαντήστε με 1, 2, 3, 4)

1. **Μ' ΕΝΔΙΑΦΕΡΕΙ ΝΑ ΑΝΑΚΥΚΛΩΝΩ**: _____

2. **ΑΝ ΟΧΙ, ΓΙΑΤΙ; (διαλέγω έναν λόγο):**

ΠΟΛΛΗ ΦΑΣΑΡΙΑ ΧΩΡΙΣ ΑΠΟΤΕΛΕΣΜΑ □, **ΔΕΝ ΠΙΣΤΕΥΩ ΣΤΗΝ ΑΝΑΚΥΚΛΩΣΗ** □,

ΑΦΟΥ ΤΕΛΙΚΑ ΚΑΤΑΛΗΓΟΥΝ ΣΤΑ ΣΚΟΥΠΙΔΙΑ □, **ΔΕΝ ΕΧΩ ΧΡΟΝΟ:** □,

Ο ΓΕΙΤΟΝΑΣ ΤΑ ΠΕΤΑΕΙ ΟΠΟΥ ΒΡΙΣΚΕΙ, ΓΙΑΤΙ ΕΓΩ; □, **ΑΛΛΟ:** □

3. **ΘΑ ΠΛΗΡΩΝΑ ΛΙΓΟ ΠΑΡΑΠΑΝΩ ΓΙΑ ΕΝΑ ΠΡΟΪΟΝ, ΑΝ ΓΝΩΡΙΖΑ ΟΤΙ ΤΟ ΑΝΤΙΣΤΟΙΧΟ ΦΘΗΝΟΤΕΡΟ ΠΡΟΪΟΝ ΕΠΙΒΑΡΥΝΕΙ ΚΑΤΑ ΠΟΛΥ ΤΟ ΠΕΡΙΒΑΛΛΟΝ ΚΑΤΑ ΤΗΝ ΠΑΡΑΣΚΕΥΗ ΤΟΥ**: _____

4.**Η ΔΙΑΤΗΡΗΣΗ ΤΟΥ ΚΑΘΑΡΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ ΣΤΟ ΝΗΣΙ ΜΟΥ ΕΙΝΑΙ ΥΠΟΧΡΕΩΣΗ ΠΟΥ ΠΡΕΠΕΙ ΝΑ ΦΕΡΕΙ ΕΙΣ ΠΕΡΑΣ ΜΟΝΟ Ο ΚΡΑΤΙΚΟΣ ΜΗΧΑΝΙΣΜΟΣ**: _____

5.**ΠΛΗΡΩΝΩ ΦΟΡΟΥΣ, ΑΡΑ ΘΕΩΡΩ ΟΤΙ ΑΠΟΚΛΕΙΣΤΙΚΑ ΚΑΙ ΜΟΝΟ ΤΟ ΚΡΑΤΟΣ ΠΟΥ ΕΙΣΠΡΑΤΤΕΙ ΑΥΤΟΥΣ ΤΟΥΣ ΦΟΡΟΥΣ ΕΙΝΑΙ ΥΠΕΥΘΥΝΟ ΓΙΑ ΕΝΑ ΚΑΘΑΡΟ ΠΕΡΙΒΑΛΛΟΝ**: _____

6. **ΦΕΡΩ ΕΥΘΥΝΗ ΓΙΑ ΤΟ ΠΕΡΙΒΑΛΛΟΝ ΠΟΥ ΘΑ ΠΑΡΑΔΩΣΩ ΣΤΗ ΝΕΑ ΓΕΝΙΑ**: _____

7. **ΦΡΟΝΤΙΖΩ ΠΑΝΤΑ ΝΑ ΕΙΜΑΙ ΚΑΛΟ ΠΑΡΑΔΕΙΓΜΑ ΣΤΗ ΝΕΑ ΓΕΝΙΑ ΟΣΟΝ ΑΦΟΡΑ ΤΗΝ ΔΙΑΤΗΡΗΣΗ ΤΟΥ ΚΑΘΑΡΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ**: _____

8. **ΧΡΗΣΙΜΟΠΟΙΩ ΜΕ ΜΕΤΡΟ ΤΟ ΝΕΡΟ ΠΟΥ ΥΠΑΡΧΕΙ. ΔΕΝ ΚΑΤΑΝΑΛΩΝΩ ΑΣΚΟΠΑ ΝΕΡΟ**: _____

9.**ΓΝΩΡΙΖΩ ΠΑΝΩ ΑΠΟ ΤΕΣΣΕΡΙΣ ΤΡΟΠΟΥΣ ΕΞΟΙΚΟΝΟΜΗΣΗΣ ΝΕΡΟΥ**: _____

10. **ΤΙ ΑΠΟ ΤΑ ΠΑΡΑΚΑΤΩ ΚΑΝΩ**; (μέχρι 3 τικ Χ)

Ανακυκλώνω χαρτί: □ Δεν αφήνω άσκοπα το νερό να τρέχει: □

Ποτίζω πάντα βραδινές ώρες: □ Συλλέγω νερό της βροχής: □

Κάνω ντους με πολύ ζεστό νερό: □ Πλένω τα πιάτα με ανοιχτή τη βρύση μόνιμα: □

Πλένω μπαλκόνια και αυλή με το λάστιχο: □ Πλένω με μισογεμάτα πλυντήρια: □

11. **ΠΑΛΙΕΣ ΗΛΕΚΤΡΙΚΕΣ ΣΥΣΚΕΥΕΣ ΤΙΣ ΠΕΤΑΜΕ ΣΤΑ ΣΚΟΥΠΙΔΙΑ**: _____

12.**ΧΡΗΣΙΜΟΠΟΙΩ ΒΙΟΛΟΓΙΚΑ ΔΙΑΣΠΩΜΕΝΑ ΠΡΟΪΟΝΤΑ ΚΑΘΑΡΙΟΤΗΤΑΣ (απορρυπαντικά, κλπ.)**: _____

13.**ΓΝΩΡΙΖΩ ΤΗΝ ΑΦΑΛΑΤΩΣΗ ΣΑΝ ΤΡΟΠΟ ΔΙΑΣΦΑΛΙΣΗΣ ΝΕΡΟΥ**: _____

14.**ΜΙΑ ΕΠΙΧΕΙΡΗΣΗ ΑΦΑΛΑΤΩΣΗΣ Η ΒΙΟΛΟΓΙΚΟΥ ΚΑΘΑΡΙΣΜΟΥ ΘΑ ΗΤΑΝ ΓΙΑ ΤΟ ΝΗΣΙ ΜΟΥ ΠΗΓΗ ΘΕΣΕΩΝ ΕΡΓΑΣΙΑΣ ΚΑΙ ΑΝΑΠΤΥΞΗΣ ΠΡΟΣ ΤΗ ΣΩΣΤΗ ΚΑΤΕΥΘΥΝΣΗ**: _____

15.**ΘΑ ΠΛΗΡΩΝΑ ΚΑΠΟΙΟ ΧΡΗΜΑΤΙΚΟ ΠΟΣΟ ΑΝ ΜΠΟΡΟΥΣΑ ΝΑ ΑΠΟΦΥΓΩ ΤΗ ΧΡΗΣΗ ΒΥΤΙΩΝ ΓΙΑ ΑΠΟΦΡΑΞΗ ΤΟΥ ΒΟΘΡΟΥ**: _____

16.**ΓΝΩΡΙΖΩ ΚΑΙ ΕΠΙΚΡΟΤΩ ΤΟ ΒΙΟΛΟΓΙΚΟ ΚΑΘΑΡΙΣΜΟ ΥΔΑΤΩΝ:** _____

ΕΥΧΑΡΙΣΤΩ ΓΙΑ ΤΗ ΣΥΜΜΕΤΟΧΗ ΚΑΙ ΤΗΝ ΥΠΟΜΟΝΗ ΣΑΣ!

APPENDIX 2 – DECLARATION ON PLAGIARISM

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GENERAL DECLARATION ON PLAGIARISM

Name: AGELIDOU SOTIRIA

Student ID: 1101100002

1. I, the undersigned, declare that I am aware of what plagiarism entails (Part II: Regulations & Policies, Student's Handbook).
2. I understand the International Hellenic University's plagiarism policy and what the consequences of plagiarism are, as outlined in the Student's Handbook. Specifically, I recognize that the University takes a serious view of plagiarism and will act to ensure that cases found in breach of its guidelines are handled with all due gravity. Such action may lead to expulsion from the University.
3. I hereby declare that all work submitted by me for every aspect of my course is mine and that where I have made use of another's work, I have attributed the source(s) according to the Regulations set in the Student's Handbook.

Agelidou Sotiria 31/1/2012

Signature Date

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