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## **PROPOSAL STUDY DESERT FOREST NEAR ES-SIDER OIL PORT NW LIBYA**

**Fathi Elost**

Waha Oil Company, Libya  
[hmbstf@yahoo.co.uk](mailto:hmbstf@yahoo.co.uk)

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### **Abstract**

*Located that oil port of siders following waha Oil Company which is located west of sirt on covering the moving sand dunes pot dominated system desertification. The solar energy will be used to evaporated brine and generate cool air pure water in order to grow food inside the greenhouses where the sea water will be used facilities. Concentrated idea of the project to exploit an area of about 20km through which pipeline to flow of sea water to the ground which may allow the lows of Nature which produce fresh water from sea water and change climate conditions to humid climate contributes to the rainfall and characterized the technology that will be used in the project to its ability to transform large tracts of desert into green produce commercial quantities of food and energy crops and freshwater used the project is based on the establishment of greenhouse where sea water used provide growth conditions cold and wet of vegetables in addition to the production of fresh water and will be connected to the solar with thermal units for the desalination of sea water supported by technology and will allow pilot also cultivation of algae in the system of bioreactors optical and farming systems in basins exposed produces plant food ,water, energy between greenhouse protected salt water and solar power intensive and cultivation of algae and technological and scientific . the basic idea of this project is to bring sea water into the desert then vaporized process centered on what is known as sea*

water where the evaporating sea water by solar energy and then intensify freshwater not only that but maintains a moist interior cool and are ideal for the cultivation of crops, it was the first model to sea water greenhouse a unit area of 2000 square meters in port Augusta in Australia and has won its first crop tomatoes in the last months ago ,Sahara forest project combines the technology and solar power uses mirrors to focus the light on the complex to heat which in turn produces steam for the management of turbine generator at a supplying greenhouse powered and operated and the greenhouse extended solar power plant with water marking them more efficient that the project is promising and important in the field of renewable energy and to take advantage of the potential and of solar energy in our integrated project and ambitious aims to cultivate bio-fuels to generate an energy clean aimed at protecting the environmental may work on climate change. The project is based on the new Technologies in carpeted into solar energy and seawater Greenhouse and cultivation of green algae and for the cultivation of arid areas and the provision of food and fresh water as well as bio-fuels to generate clean energy. The idea of the project is simple and Natural based on the use of solar energy in the evaporation of salty seawater to generate cold air and water and clean energy in deserts and Technology use Mirrors sunlight to form steam to Run turbines which in turn generate electricity is expected to shift the equipment desert to the territory to the a prosperous agricultural out about the need to drill water wells which increase water shortage and possible planting any kind of vegetables in greenhouse sea water are essential in the project which cost to be cooling desert air warm and ? Wet with sea water before being admitted to the greenhouse and this air humidifier will feed crops inside greenhouse then dryer where flowing sea water heated warmly sun? and soon meet air humidifies of channels containing water condenses fresh water and dripped drops on the external aspects of channels that can be assembled the process mimic what happens in Nature evaporates sea water as a result of the sun's heat and work is underway to cooling leads to the formation of clouds and condense these vapors of water to fall water like rain only 10-15 % of moist air condenses into fresh water and the rest out of the surrounding tress thus the greenhouse creating green surroundings around the will be through energy intensive and through the use of Mirrors to focus sunlight on pipes and boilers for water district cause radiation intensive production high heat inside the pipe provides enough power to turn Turbines team which in turn would for electrical power and six cell additional power to the people are a population of benefiting says a specialist and is Neil Crompton one energy experts there is huge

*potential for these new Technologies unit focused and one covering only 9% of the area of deserts ground and can provide five global need for energy as well as can invest this technique streaming tons of sea water per day using only 20 thousand greenhouse.*

## **Keywords**

Libya

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## **1. Introduction**

Characterize the oil port of Sidra good location along the Libyan coast to the east so that it can extend the line to fit the tube through which sea water Turn Desert areas a distance of 6 km.

Sidra oil port of a key Libyan oil export ports and the largest, is about 180 km east of Sirte. And is used in the export of Libyan oil through pipelines to transport oil from the south up to its distance is about 1,400 km. Facilities were completed in 1962. Among its facilities are equipped with four berths for cargo ships, and 19 storage tanks with a capacity of up to 6.2 million barrels of crude oil for. Exposed to Libya since about 400 million years ago to the activities of geology led to the formation of the natural attritions of Libya and the formation of a group basins oil and water in the water of the development the initial system of tectonic processes in the two phases upper Paleozoic and Permian pushed seawater TTS to inundate vast areas of Libya territory to reach the mountains Tibsty then retreat to happen later in the Pleistocene of the modern era changing climate led to said rain and from a group of units rocky hills and seas of vast sand to create conditions desert led to the emergence of a group of sand dunes that make up the vast expanses of Libyan territory which is about 1,700,000 km<sup>2</sup> and believed that the time fourth geological from most of the features of Libyan territory located Libya within the climate semi-dry which is characterized by low rate of precipitation which contributed to the spread widely to the problem of desertification and the transformation of vast areas of fertile land high production areas to poor flora and fauna causing the poorest to the ecosystem, because the spread of desertification to the climate conditions of long-range of the low rate of precipitation as well as the occurrence of the region in the climate semi-desert to high rate of evaporation and transpiration low soil moisture and high common sulfate and calcium carbonate which led to the spread of marshes salt and therefore to say vegetation in the range western also heavy irrigation

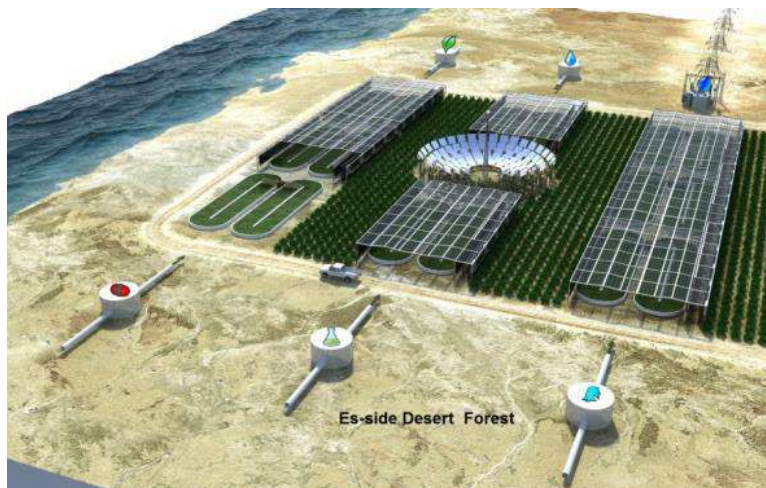
has led to the increase of salinity in the soil for the soil to turn saline soil suitable for agriculture but not for the building and also logging and over sponsor of the other problems that have led to increased desertification in the region .



**Figure 1: Es.sider Map**

### 1.2 Location Geography

Sidra oil port of a key Libyan oil export ports and the largest, is about 180 km east of Sirte. And is used in the export of Libyan oil through pipelines to transport oil from the south up to its distance is about 1,400 km.



**Figure 2: Sample Es-eide Forest**

## **2. Objective Study**

This study aims to units of climate change through water vapor to provide by sea water vaporization heats the sunshine so that we have a water vapor could fall all the way large amounts of rain, God willing, and work is underway on cooling, leading to the formation of clouds and condense the vapors water falls to fall water like rain from 10 to 15 per cent of the air humidifier condenses into fresh water and the rest outside the surrounding trees.

Condense the vapors of water to come K fall water like rainfall only to 10 – 15% of the air humidifier condenses into fresh water and the rest outside the surrounding trees, thus the greenhouse creating.

### **2.2 Environment Deposits**

The Libya oil field are located within the arid desert regions lack the necessities of life because of the widespread natural sand dunes I said water summed up the ides of instating the Sahara forest project on an area of about 10 hectares which is a huge for the flow of sea water toward the earth where pipeline it is possible that the laws of nature allow the production of fresh water characterized the technology that will be used in the project in its ability to covert large tracts of desert into green land and the process mimic what in nature evaporates sea water as a result of the sun's heat and work is under way on the cooling leads to the formation of clouds and condense the vapors of water to came k fall water style rainfall only 10 to 15% of the air humidifier condenses into fresh water and the rest outside the green surroundings trees thus the greenhouse creating green surroundings ground and is Neil LEC texts one energy experts there is a huge potential for these new technologies power unit CSP one covered only 1% of space Sahara earth and can provide five global need for energy as well as can invest this technique steaming million tons of sea water per day using 20.000 greenhouse only produce commercial of food crops growth conditions cold and wet vegetable in addition to the production of fresh water. It will be connected to solar with thermal unit for seawater desertification technology backed it will provide experimental station also cultivate algae in the system of bioreactors optical systems and cultivation in ponds exposed produce plant food water and energy university of greenhouse protected cooled salt water and the generation of solar electricity intensive and the cultivation of algae and technological re-greening of the desert what constitutes several precedents that the

basic idea of this project is to bring seawater to the desert then vaporized by solar energy and then intensify fresh water not only this but retains environment damp and cold are ideal for the cultivation of crops , it was the first model for the sea water greenhouse a unit with are 2000 square meters in port Augusta in Australia and has won its first crop of tomatoes last month's Sahara forest project combines the technological and solar power plant unlike the PV system which convert sunlight into electricity the CSP uses mirrors to focus the light on the complex to heat which in turn produces steam to run a turbine generator at a facility forest desert the solar power plant supplying gas power and operation and the greenhouse extended solar power plant with water making then more efficient project he is promising and important in the field of renewable energy and to take advantage of the potential of solar power in the Arab region green house and sea water are essential in a project cost will be cheap as cabling the hot desert air and moistened with sea water before entering into greenhouse and his air humidifier feed crops insidethegreenhouseandthenpassesthroughthedryerwheretheflowofseawaterheated .Immediately after the heat of the sun meet air humidifier of channels containing sea water cold fresh water condenses and drops dripped on the external aspects of the channels so they can be assembled the process mimic what happens in nature evaporates sea water as a result of heat sun and work is underway on the cooling leads to the formation of clouds and process of using energy intensive and through the use of mirrors to focus sunlight on black pipes and boilers for the water district radiation cause intensive production of high heat inside the pipe provides enough energy run Turbine steam which in turn will generate electrical power and six cell additional energy to residents of the area population to have benefited says one>



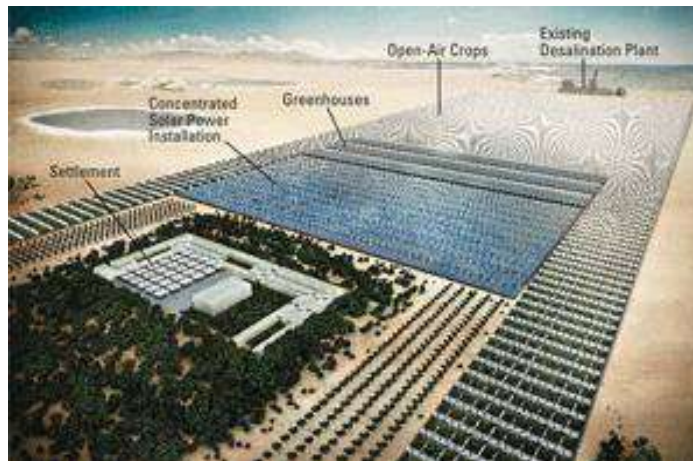
**Figure 3:** farm sider area

specialist and is Neil LEC texts one energy experts there is a huge potential for these new technologies power unit CSP one Covered only 1% of the are desert in the earth and can provide five global need for energy as well as can invest this technique steaming million tons of sea water per day using 20.000 and only a greenhouse can is know that this project is about the Libya oil field that lack the greenland.



**Figure 4:** *Green House*

Environment is a system dynamically complex includes the components and elements of interlocking, multi, where knowledge and information related to this system greatly evolved in recent decades, especially with its association largely being an important dimension of sustainable development dimensions in the community and the fact that the concept of scientific environment he finishes means basic signal to the study of nature... Its elements and organic physical and chemical neighborhood surrounding the object, the ecosystem in nature and accordingly represents the result of the balance between elements with factors and forces that interact with each other to happen balance and end the imbalance in the system Environmental. The idea of the project focused on the possibility of creating a new environmental conditions in the oil field areas through the establishment a new climate regime to increase the proportion of evaporation from solar heating to create an opportunity for rainfall Falls to the primitive desert development phase so that abound trees and farms specialized and natural lakes through climate change dry to wet climate copious rain.



**Figure 5:** *Lake Sea water in desert*

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