

## **INTRODUCTION:**

S.Y. CAPITAL HOLDINGS LTD is a United Kingdom based start-up company specialising in environmentally friendly next generation Solar Power, Solar Lighting and Ionospheric Water Management solutions, that was recently granted the exclusive rights to propose, market and deliver a proven advanced Ionospheric Climate Modification Technology, that is decades ahead of its competitors, to governments, non-governmental organisations and corporations.

## **A BRIEF SUMMARY ABOUT CGCT CLIMATE MODIFICATION TECHNOLOGY:**

CGCT, is a provider of integrated technology solutions, specialising in the planning and implementation of Ionospheric Technology for Climate Modification. CGCT is the world's leading supplier of water resources of atmospheric origin on the global market of water resources and other advanced weather and climate modification services.

The company has successfully implemented numerous tests of the unique advanced Technology for Climate Modification in the UAE, Iran, India (Mumbai State), and other countries since 2007 - see brief summaries of the tests at the end of this document.

CGCT has a strong diverse team from the Science and Research Sector that has evolved within the last thirty years and consists of more than 400 highly capable and uniquely experienced professionals and experts from around the world.

With its capable team of highly skilled professionals, the company guarantees client Corporations and Governments the effectiveness of all resources as well as precise and successful implementation.

CGCT's Technological solutions allow seasonal regulation of atmospheric processes within a pre-defined area dictated by the client Corporation or Government, by transferring wetted air masses from over-wetted areas to arid regions and to ensure the long-term, even permanent, presence of additional moisture in arid regions and maintain a given climate regime.

The Innovative Climate Modification Technology is safe and ecologically friendly, the technology **does not use** any chemical components and is fully reversible.

By use of the technology, CGCT are able to completely compensate for the negative impact on the climatic processes caused by anthropogenic impact on the environment.

## **COMPLIANCE:**

Innovative "Climate Modification Technology" fully complies with The Environmental Modification Convention (ENMOD), formally the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification, which is one of the main UN documents prohibiting its participants from military or any other hostile influence on the environment, through the deliberate management of natural processes in the biosphere, hydrosphere, the Earth's atmosphere, and near-Earth space.

Integrated technological solutions of the company for managed weather change will allow to take into account the climatic characteristics of the defined area (territory) and to increase precipitation, regulate groundwater levels, eliminate the causes of dust storms, tornados, and also levelling of seasonal temperature contrasts to a comfortable level in a certain area of the region.

## **BENEFITS OF THE TECHNOLOGY:**

- The Client defines the weather regime and area for an agreed duration (minimum of 1 year).
- The results of the application of the technology will be visible within 2-3 months.
- Integrated use of the technology will solve the country's needs for water resources within 2 to 3 years.
- A stable change of weather conditions on the territory of the Client will occur within 5 to 7 years
- Within 5-7 years the country's water security will be completely secured

The uniqueness of the "Climate Modification Technology" allows the delivery of Megalitres (ML) of water over vast distances and atmospheric precipitation in huge areas determined by the Client, which allows a real solution of water security for countries suffering from water scarcity.

The water of atmospheric origin has colossal advantages over the conventional methods of supplying fresh water and has a positive impact on the agricultural sector, energy sector, and the entire economy of any country.

## **IONOSPHERIC CLIMATE TECHNOLOGY:**

1. CGCT has invested heavily in Research and Development for the past 50 years this has made it possible to create a process control system including control of atmospheric processes.
2. Collection and processing of data on atmospheric processes, formation of control algorithms, and control of execution are carried out in real-time and over large areas.
3. Managing weather processes in an area of 100,000 square kilometres up to 3 million square kilometres. CGCT is also able to manage weather processes within commercial projects (minimum of 2,000 square kilometres).
4. The advanced Climate Modification Technology ensures Controlled Climate Change is fully reversible
5. The Client determines the parameters; temperature, rainfall, humidity, groundwater level, etc.
6. If desired, the Client may change the parameters, subject to regional tolerances being compatible to the change.

## **HOW IT WORKS:**

- CGCT use unique electromagnetic waves with different frequencies
- Creating and safely managing the atmospheric flows, thermal lens, control and managing weather anomalies.
- Safely managing weather processes of the ocean and atmosphere.
- Creating an atmospheric wall (force field) with modified parameters
- Create and safely manage different atmospheric tunnels which safely effects the
- CGCT technology is precise and detailed, CGCT are always in full control of the implementation in real-time. This allows them to see the impact of the process and allows them to effectively and safely manage the situation.
- This unique technology allows any minute changes within the energy field of the earth to be detected, tracked, and corrected if required.

## **A TEAM OF SCIENCE AND RESEARCH SECTOR SPECIALISTS PROVIDE:**

- Continuous monitoring in real-time of all atmospheric processes in the area of work.
- Creating a database of real atmospheric (weather, climate) processes that have occurred in the area of work. On the basis of these data formed a multidimensional dynamic matrix that is used in the preparation of software control algorithms.
- Forming of controlled algorithms atmospheric processes in the area of work, considering effects (synergistic) interaction of all operations and tests occurring in adjacent areas before work and during the period of work.
- Forming the dynamical scenarios and program complexes for the Modification of weather and climate parameters in real-time.

- Running the program for the control of weather and climate processes in selected areas.
- Control over the conduct of works for the management of weather and climate processes in the chosen areas during the process.
- Modification of current management programs' weather and climatic parameters.
- Modification of current management programs to weather and climate parameters due to changes in the parameters of the Contract.
- Structure of the organisation of the scientific and research sector is a distributed network structure with multiple overlapping redundancies.

## **EQUIPMENT:**

Hardware technology "Controlled Weather Change" presents a distributed network of antenna systems. Antenna complexes are located in areas of active weather-forming processes in the Indian Ocean region.

Antenna complexes are fully autonomous and non-volatile; with a high level of redundancy, these complexes provide a completely safe control system for all atmospheric processes.

***The information regarding the location and composition of equipment is strictly confidential.***

### **1. REGULATION OF THE AMOUNT OF RAINFALL IN ANY GIVEN AREA:**

- Raising the amount of rainfall up to 50% in the arid season in a given area
- Decrease in precipitation during heavy rainfall period in a given area
- Ensuring the required amount of precipitation in a given area within a certain time interval
- Changing in average levels of precipitation in a given area
- Filling of reservoirs with fresh natural water

The provision of additional inflow of moisture into the arid regions of the country is carried out by the transfer of wetted masses of air, which will increase precipitation in arid areas by 150-300 mm a year and eliminate water scarcity for household, agricultural and industrial needs of regions that suffer from water scarcity

### **2. REGULATION OF SEASONAL TEMPERATURE CONTRASTS:**

- Changing the maximum and the average temperature in any given territory
- Change the temperature of the environment (up to 5-10 Celsius degrees)
- Balance of seasonal and territorial weather and temperature contrasts to a comfortable level
- Change the level of humidity of the air

Regulation of seasonal temperature contrasts will ensure a year-round beach season in tourist areas, which will lead to further development of the tourism sector and will have a positive impact on the entire agricultural sector, and will significantly improve the efficiency of the entire economy of countries, suffering from water scarcity

### **3. REGULATION OF PROCESSES OF NATURAL SEWAGE IN THE BASINS OF THE LARGEST RIVERS:**

- Increasing precipitation in the basins of the largest river regions during the dry seasons
- Decreasing of precipitation in the basins of the largest rivers during the summer monsoon rains
- Regulating water levels in reservoirs of large hydraulic structures.
- Water scarcity often provokes water conflicts in many regions.

### **4. REGULATION OF GROUNDWATER LEVEL:**

- Rise of groundwater level
- Reduction of groundwater salinity

- Change the level of humidity of the soil
- Demand for groundwater increases proportionately to the population and the number of available water sources in many areas over the world is decreased due to pollution and depletion of groundwater. The groundwater level also decreases at a catastrophic rate due to the drilling of a huge number of wells.
- Technological solutions allow to restore and maintain the required level of groundwater in the agricultural areas of countries, suffering from water scarcity.

## **5. COMBATING ATMOSPHERIC AIR POLLUTION:**

- Change the strength and direction of prevailing winds
- The technological solutions allow to effectively combat pollution of atmospheric air by transferring air masses over long distances.

For example, the air quality index in Beijing reaches up to 288 compared to 66 in London and represents a serious danger to the health and welfare of the capital's population. The technological solutions allow changing the strength and direction of prevailing winds and replacing polluted air masses with clean atmospheric air above the industrial cities of the countries or over ascertain territory.

## **6. COMBATING FOREST, GRASSLAND AND PEAT FIRES:**

- Prevention of forest and grassland fires
- Prevention of peat fires
- Technological solutions of CGCT allow to effectively combat forest, grassland and peat fires, providing the required amount of precipitation over forest areas, grasslands and peat fields within a certain period of time

## **CLIMATE MODIFICATION TECHNOLOGY FEATURES & BENEFITS:**

- Developments and discoveries made it possible to create a process control system, including control of atmospheric processes, outdistance in 30 – 50 years from the current level of development in their fields.
- Collection and processing of data on atmospheric processes, formation of control algorithms, and control of execution are carried out in real-time and over large areas.
- Managing weather processes in an area of over 10, 000 square kilometres and, especially, managing climate processes within commercial projects carried out only by us experts.
- Technology "Controlled climate change" is fully reversible.
  - a) At the Climate's request (when will be changing the contract 1 or will be a new contract
    - 1) may be changed by weather and climatic parameter (temperature, rainfall, humidity, groundwater level, etc.) or can be returned to its original state.
  - b) At the Client's request weather and climatic parameters can be changed to other parameters within the framework of regional tolerances.

## **HOW IT WORKS:**

- CGCT use a unique electromagnetic wave of different frequencies to control processes in the atmosphere.
- Creation and management of atmospheric flows, thermal lens, and anomalies.
- Process management of energy in the atmosphere and on the border of the ocean-atmosphere.
- The CGCT model manages and creates different corridors in the atmosphere that affects the current climate processes.
- CGCT's advanced technology and equipment allow them to consider various natural atmospheric and climatic processes in real-time. Therefore, they can see the impact of these processes, and understand how and what is required for the effective management of the particular case.
- This does not exist anywhere in the world, because of the change in the energy field of the earth for 10 million square kilometres, the experts can detect and track and correct it.

- The energy equivalent of this planned action maybe tens of megatons, only distributed in time and space. And it may be comparable to the solar energy flowing into the territory (5 to 30%).

### **CGCT CLIMATE SOLUTION TECHNOLOGY SERVICES:**

- CGCT's weather technology "100% GREEN"
- CGCT's weather technology is able to control all climate parameters, by changing the wind direction and speed, it cleans pollution and fog, smog, in the affected areas, by manoeuvring clouds from the oceans.
- Dissolve & Prevent Fog Formation Radiation/ Advection.
- Filling Natural Water Reservoirs.
- Increase Underground Water Levels.
- Significant Increase of Precipitation.
- Reduce Humidity.
- Decrease Temperature in summer to a comfortable level.
- Create Chemical Free Ion Antenna Free Rain, remotely, without the use of any equipment in the area.
- CGCT's weather technology can reduce or increase the atmospheric temperature up to 10 degrees, creating a suitable climate for glacier retreat, agriculture, and forestry.
- Balance all climate parameters simultaneously in various areas e.g.; navigating clouds to vaporise rain beneficial in floods or create rain for drought.
- Passion for the average annual rainfall in the right areas, territories, and much more according to the country's needs.
- Reduce humidity, and stop sand and dust storms, cyclones and hurricanes.
- Balance all climate parameters simultaneously in various areas e.g., navigating clouds to vaporise rain beneficial in floods or creating rain for drought.

### **ADVANTAGES OF THE UNIQUE CGCT TECHNOLOGY:**

The integrated technological solutions of Climate Modification Services, allow the taking into account the peculiarities of the climate of any country and will be carried out in accordance with the Scenario developed by highly qualified specialists, taking into account the detailed technical specifications and demands from the specialists of Beneficiary of rains and the technical services for weather management. The integrated technological solutions of the unique Climate Modification Service, ensure:

- Increase the precipitation within the dry period
- Decrease the precipitation within the wet monsoon period
- Filling of natural and reservoirs of hydraulic structures of the country with rainwater.
- Regulation of processes of natural sewage and natural run-off processes in the basins of the main rivers of the country
- Carry out to regulate the groundwater level on a specified territory of the country
- Reduction of groundwater salinity.
- Change the level of humidity of the soil
- Extinguishing forest and peat fires
- Elimination of Factors Generating Dust (Sand) Storms
- Elimination of factors generating tsunamis, cyclones, tornadoes, and hurricanes in the water areas of the Indian and the Pacific Ocean
- Combating atmospheric air pollution by the change the strength and direction of prevailing winds
- Carry out the levelling of seasonal temperature contrasts to a comfortable level, change the level of humidity of air and provide a year-round beach season in the tourist areas of the country and as the result, the certain area of the country is settled the necessary weather regime for a certain period of time and will be solved the main needs in water resources and the country's water security could be completely ensured.

### **COMPARISON OF WEATHER MITIGATION SERVICES TECHNOLOGIES:**

Compare our CGCT technology and other rain generating techniques, such as cloud seeding, currently available.

## **CGCT WATER RESOURCES OF ATMOSPHERIC ORIGIN (IONOSPHERIC TECHNOLOGIES)**

There are some technologies used by our competitors that are able to generate rainfall from dense clouds (Cloud Seeding), but there are **no other technologies** like CGCT that is able to move heavy rain bearing clouds from one place to another or from Oceans to any land area, or change the direction and speed of winds, quench hurricanes, change their direction and weaken them, and increasing or decreasing the monthly and yearly temperature.

## **CLOUD SEEDING (CHEMICAL TECHNOLOGIES) AS OFFERED BY COMPETITORS**

Cloud seeding is a technology for increasing the amount of precipitation (rain, snow, hail, and fog) that falls from clouds by means of dispersing into the air chemicals that include the silver iodide, potassium iodide, dry ice (solid carbon dioxide) etc or sodium, which is becoming more popular.

Cloud seeding chemicals may be dispersed by aircraft or by dispersion devices located on the ground (generators or canisters fired from anti-aircraft guns or rockets). For release by aircraft, silver iodide flares are ignited and dispersed as an aircraft flies through the inflow of a cloud. When released by devices on the ground, the fine particles are carried downwind and upward by air currents after release.

Whilst currently there is no research data available regarding long-term negative effect of cloud seeding on the environment. It is widely agreed by the scientific community that it is highly probable that the chemicals used for cloud seeding will present long-term degradation of agricultural soil condition and raising of saline levels in groundwater as well as possible harm to humans, farm and domestic animals as well as wildlife - Link to a research paper below:

[https://www.researchgate.net/publication/328718655\\_Cloud\\_Seeding\\_Its\\_Prospects\\_and\\_Concerns\\_in\\_the\\_Modern\\_World-A\\_Review](https://www.researchgate.net/publication/328718655_Cloud_Seeding_Its_Prospects_and_Concerns_in_the_Modern_World-A_Review)

## **SUMMARY OF PREVIOUS PROJECTS:**

### **Project "Kerman" - Iran 2007**

On the 31st May 2007 CGCT began a two month demonstration of the CGCT Climate Modification Program over a 100 square kilometre pre-determined area within the Hamun-e Jaz Murian region of Iran.

The designated area was situated in the western part of a valley between the Makran and Kuh Rud mountain ranges, and bordered by the Kuh Rud foothills to the West, a dry lake to the East, and the newly constructed road to Iranshahr to the North.

The nearest meteorological station, that had archive data available that included the pre-determined project area, was Kahnuj, that is located approximately 660km to the South East of Hamun-e Jaz Murian.

The Kahnuj station's data showed an average monthly precipitation level in June as just 0.7 mm and 2.9 mm in July for the preceding five years.

The Mohammad Abad Koteki Weather station, which is situated close to the centre of the demonstration area (longitude of 58-36E, latitude of 27-49N) reported that on the 24th July 2007 the level of precipitation in the pre-determined area was 23 mm.

There was a further 13 mm precipitation on the 26th July 2007 - a total precipitation of 36 mm was achieved within the pre-determined area within sixty days.

An additional result of the operation included a change of the weather conditions over the region.

The precipitation in Iranshahr during the month of June was increased 64%, based on the average annual precipitation rate and the precipitation level in July was in excess of thirty times the previous five year average.

Similar weather anomalies were registered throughout the entire region. These anomalies were caused by moisture alone, as CGCT had discharged the bulk of water transferred from the Pacific Ocean into the Arabian Sea, which is illustrated by data from the Goddard Space Centre, that demonstrates the weekly precipitations accumulated over the period 21st - 27th June 2007.

The demonstration caused a dramatic change of the weather patterns, including anomalous tropical cyclone 03B\*\*, that appeared during the moisture transfer process.

The tropical cyclone 03B was the main source of precipitation and energy to enable the transfer of the precipitation to the pre-determined region of the demonstration.

The tropical cyclone 03B was directed over the Hindustan peninsula to the Arabian Sea to ensure minimal loss of humidity and energy.

It should be noted that the main precipitation occurred on the south coast of Iran and in mountainous regions, which hindered higher levels of precipitation reaching the pre-determined Hamun-e Jaz Murian Valley.

\*\* NASA Earth Observatory: <https://earthobservatory.nasa.gov/images/18567/tropical-cyclone-03b>

*Project Kerman data and climatic imagery on file at head office and available*

### **Project "Urmia" - Iran 2010**

The aim of project Urmia was to raise precipitation levels above the seasonal norm by 30 - 40 mm during a month long trial. Project Urmia was a massive success, generating more than 60 mm of rainfall.

This was achieved via the active transfer of moisture, by forming of the localised stationary "mini-cyclone" to provide transfer of moisture from the Caspian and Black Sea region as well as the North Caucasus.

Precipitation for 30 days within the epicentre of the project target area from 30th May 2010 to 29th June 2010 was more than 100 mm and over the same period, in excess of 150 mm of rain fell within bordering regions in Iran.

Notably Khuzestan Province, which was the epicentre of the first precipitation and Tehran, the epicentre of the second precipitation experienced in excess 250% increase in precipitation, in comparison to the historic climatic norm.

An additional result of project Urmia was that significant levels of precipitation fell over 85% of Iran during the "dry season".

*Project Urmia data and climatic imagery on file at head office and available*

### **Project "Khuzestan" - Iran 2011**

The Scientific and Industrial Department of the Embassy of the Islamic Republic of Iran organised talks with regard to Practical Application of Technology driven climate change, in order to address environmental and economic problems within the Islamic Republic of Iran.

#### **Iranian Representatives Present:**

Mehrab Rouhbakhsh, Attach. of Science and Industry

Mehdi Ghalenovi, Director of Industrial Technologies Department, Centre for Innovation and Technology Cooperation (CITC) (Iran)

Mr Hodemi, deputy governor of Khuzestan province (Khūzestān Province)  
Abbas. Holacoei, Ahwaz Urban Railway Organisation Managing Director  
Dr. Amir Mahmoodzadeh, Sharhes Sazan Managing Director

The Deputy Governor of Khuzestan province, Mr. Hodemi acted as the representative of the Client at the talks that took place in December 2010.

The client expressed a desire to achieve full climate conversion in the region via technology controlled climate change.

### **Project requirements:**

1. increase rainfall in the province of Khuzestan (Khūzestān Province) with the aim to eliminate the effects of drought, recharge of water in natural water bodies and reservoirs as well as raise the level of groundwater;
2. decrease in the number and intensity of dust storms.

Khūzestān Province Coordinates: 31°19'38"N 48°41'38"E / 31.3273°N 48.6940°E

It should be noted: Due to the client's failure to provide confirmation of the required payment guarantees, it was decided that the project would continue, albeit as a short term demonstration of the localisation and intensity of changes in climatic parameters in the region, rather than the full climate change parameters as agreed.

### **Results**

The demonstration region was the province of Khuzestan.

The month long demonstration took place from the 10th January 2011 through to the 9th February 2011, during the demonstration period the precipitation level over the entire region was between 50 to 200 mm of rainfall, which equates to approximately 250% above the seasonal norm for this region in addition, zonal anomaly ranged from 60 to 150 mm of precipitation equating to an annual rate of 280 mm rainfall.

The majority of the precipitation was localised in the Khuzestan province but also included bordering provinces, including ones close to the UAE

Anomalies also provided precipitation (10-30 mm) over large parts of desert in Iraq and Saudi Arabia that were prone to dust storms. This also provided a convenient and favourable climatic conditions in the Persian Gulf countries, especially in coastal areas.

Rainfall on 9th February 2011 in the extended area ranged from 20 to 60 mm and excess rainfall over the 30 days in the period in the central zone was more than 150 mm (approx 300% over seasonal norm)

*Project Khuzestan data and climatic imagery on file at head office and available*

### **Cyclone Transfer - UAE 2019**

Cyclone transfer provides capture and accumulation (concentration) of water vapour for subsequent transfer to a target area or region.

Control and formation of Cyclone transfer via CGCT Climate Modification technologies generates high levels of energy within the activation zone - in this particular case; North-West part of Indian Ocean and Arabian Sea - forcing wind correction over the target area or region, as well as adjacent territories.

Maintenance of the process is realised by external high-energy pumping up of zones of activation, by interception and capturing of high speed wind flows on adjacent territories and creation of conditions for formation of self-supporting process within the framework of managing algorithms and programs.

The main purpose of creation of the Anomaly "Cyclone transfer" – is a demonstration of immensity (scale) of areas of impact and energy of involved processes and programs of managing of climate processes.

The additional purpose of creation of Anomaly "Cyclone transfer" – is the creation of an effective tool for managing correction of climate in the region.

The secondary purpose of creation of Anomaly "Cyclone transfer" – is adjustment of the technology for external high-energy pumping up of the zones of activation and creation of energy, temperature and wind anomalies, activation of cyclones, managing of trajectories and power of cyclones, retention of cyclones in the activation zones for a time comparable to the "life" of the cyclone.

## **Results**

Formation of Anomaly "Cyclone transfer" began in the framework of program of trajectory management of cyclone VAYU\*\* and was used for formation of a channel for transfer of precipitation deep into Arabian Peninsula and to the UAE territory (Abu-Dhabi emirate)

\*\* Nasa Earth Observatory: <https://www.earthobservatory.nasa.gov/images/145175/cyclone-vayu-approaches-western-coast-of-india>

*Cyclone Transfer data and climatic imagery on file at head office and available*

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