Low Cost Coastal Irrigation System. Spots I the Desert

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The problem of desert irrigation is challenging task for modern science with great potential benefits for humans. Therefore, the project's objective was to develop a desert irrigation method that would maximize the natural resource of the planet and require minimal technological intervention by humans. After investigating a large number of satellite photos, we noticed the existence of a conditional atmospheric barrier between air masses over land and over the seas and oceans, which cause humid air to remain above the water surface. We hypothesised that if we would be able to break this barrier, moist air masses from sea will be drawn to land where water will eventually precipitate as rain. To test the hypothesis we have created several experimental setups, which showed that by placing a dark spot in land we would get local heating of the air, which will generate a steady updraft flow of air. Since the dark spot is on the seafront, the generated flow of air formed by it will also entrain the wet air from the ocean, which will begin to form a rain cloud over the desert. After a more detailed analysis of satellite imagery, we also noticed that clouds are often formed over all isolated islands, which is an additional proof of the equivalence of our hypothesis. By creating several dark spots on the coast of the desert, we will drag the sea air into the desert territory with excess moisture. Particularly noteworthy is the fact that desert irrigation will be achieved by fresh rainwater and soil salting will be avoided.

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