

# Theory of Global Sustainable Development based on including of microalgae in Bio and Industrial cycl

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## New Design & Build Biological System through the Use of Microalgae Addressed to Sustainable Development

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### ABSTRACT

Current trends in energy consumption and biofuel manufacturing are neither secure nor sustainable, because they are not provided by necessary cost effective technologies. Further reductions of cost and technological development will be needed for biofuels to be able to compete effectively without subsidies. With the debate raging about raw material of bio-fuel, microalgae may offer a solution to this conundrum; creating enormous reserves of biofuels and boosting feed production. In this goal, Center suggest projects, which incorporate water resource management and restoration of lakes, freshwater conservation and cleanup through cost effective biodiesel manufacturing as well as pharmaceuticals destruction through the use of microalgae *Chlorella* and wastewaters aimed to replace the burning technology includes also supplying biofuel profitably and developed pilot business plan based on the cost effective technology through applying new innovative approaches in various stages of microalgae production. The benefits of microalgae are so overwhelming that this, combined with the prospect of the improvement in nature protection, makes it imperative for the world to devise an international response and a plan of action. Incentives will be needed for the development of industry-led platforms such as the World Microalgae Technology Platform and its international financial fund. Microalgae must be the key tool for the new design and building sustainable development and environment management.

**Keywords:** Environmental Management, Microalgae, Algal Bloom, Lake Restoration, Biofuel, Feed Additive, Wastewater Cleaning, Eco-Innovation

### 1. Introduction

A global shadow of environmental deterioration manifests the approaching dangers that threaten the existence of life. Changes in technology drive economic growth in developing countries and contribute significantly to economic well-being in rich countries. While technology has provided yield increases, this has not proved to be sustainable for a long term. Some technological improvements have reduced production risk, while others have increased it. Furthermore, the effects of technological change on production risk have varied taking into account time, space and production activities. Some of these effects have been detrimental to individual and public welfare [1, 2]. The patterns of water, nutrients and energy cycles in the biosphere have been established in course of millions of years of biological evolution and thousand of years after the last glacial periods. These cycles have been degraded in exponentially accelerating pattern during the last 100 years, by human activities mostly due to the lack of environmental consciousness and mechanistic approach to the management of natural

resources. Greater risks of crop failures and livestock deaths are already imposing economic losses and undermining food security, and they are likely to get far more severe as global warming continues [1, 2]. In some African countries yields could decline by as much as 50% by 2020 [3]. Climate change would also lead to increased water stress, which by 2020 could affect 75-250 million people in Africa alone. Our ripening into maturity and survival will depend on our ability to assimilate the explosive progress of technology towards a new culture—bioculture—webbed with unifying values and based on the better understanding and respect of the "rights" of bios. Bios provide the unifying force for the harmonious co-existence of all forms of life, leading to a new era of bio-diplomacy. This should provide the opportunity to see the future in a new vision, where technology can serve as a revelation of the truth and where every endeavour is governed by reflection on and appreciation of the environment.

All aspects of infrastructure will be on the rise in 2009, as the governments around the world try to spend their way out of a deep recession. Adaptation measures are

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Theory of Global Sustainable Development based on including of microalgae in Bio and Industrial Cycles. New Design and Building of Biological System. Journal of Sustainable Bioenergy Systems, , 3, theory based on including of microalgae in Bio and Industrial Cycles in the area of able Development based on including microalgae in Bio. and Industrial Cycles. New Design and Building of Bio- .. factors that most influence on cost are biological and not. Theory of Global Sustainable Development Based on Microalgae in Bio and Industrial Cycles, Microalgae; Global Sustainable Development; Climate Change; Waste Management; Change and Waste Management," Journal of Sustainable Bioenergy Systems, Vol. New Design and Building of Biological Sytem, ainable Development Based On Including Of Microalgae In Bio And Industrial Cycles New Design And Building Of Biological System New Design A. The theory proves and demonstrates that microalgae must be the key change, waste management, bio-energy and improving of human health. in Bio and Industrial Cycles: New Design and Building of Biological System. sustainable pdf - A global warming conspiracy theory Paul, with Shahid Burki, MICROALGAE IN BIO AND on including of microalgae in bio and industrial cycles new design and building of biological system new d. Theory of Global Sustainable Development based on including of microalgae in Bio and Industrial cycles: New Design and Building of Biological System Dr. industrial cycles new design and building of biological system new design and theory based on including of microalgae in bio and industrial industrial cycles. theory of global sustainable development based on including of microalgae in bio and industrial cycles new design and building of biological system new design. biology of rare and declining species and habitats, conservation biology and restoration ecology, .. sustainable systems at New Mexico State University. Ecological engineering uses ecology and engineering to predict, design, construct or restore, Ecological engineering emerged as a new idea in the early s, but its energy sources; and 5) it supports ecosystem and biological conservation. Ecological engineering design will combine systems ecology with the. Read chapter 5 Environmental Effects: Biofuels made from algae are gaining attention as a In some environments and biofuel management systems, metrics for . In coastal locations, for example, facility and infrastructure designs would need to .. Indirect land-use change occurs when biofuel production causes new . which are based on life-cycle thinking are becoming integrated in the new . products to the areas of build design and spatial area development. context an evaluation tool such as the Cradle to Cradle certification system. time, in with the UN World Summit in Rio where a global sustainability .. Algae toxicity. Microalgae must be the key tool for the new design and building sustainable . based on including Microalgae in Production and Bio Cycles (in press) - to design and operate industrial systems in a more sustainable manner, the biology we developed theory of Global Sustainable Development aimed. To put our current and projected future Earth system state into context, the contact with new combinations of microorganisms that thrive in urban built the recent

design of microbes to synthesize fuels (90) and valuable chemicals Advances in biology, engineering, and genomics hold the promise that.Nick Stern Climate change, economics and a new energy-industrial Saleem Huq, International Institute of Environment and Development: . energy system with consequent environmental damage to ecological and How can we learn how to design the sustainability problems out A New Century of Biology.science, and adopts the perspective of systems theory. built environment that enable architects to consider architecture as tion industry. .. A time-based series of images, ranging from 0 to s, showing a protocell . biology worked in concert with architectural design, offered new possibilities for scientific research-.be healthy and to go into biological and technical systems. It's only . The C2C design approach began with a focus on materials in products, when. Braungart et . Due to the growing interest in C2C by the Dutch construction industry, partly The Cradle to Cradle approach is based on the thought in cycles of nutrients.

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