

## **Implementation of the geoethics principal to environmental technologies by Biogeosystem Technique**

Abdulmalik Batukaev (1), Valery Kalinitchenko (2,3), Tatiana Minkina (4), Saglara Mandzhieva (4), and Svetlana Sushkova (4)

(1) Chechen State University, Grozny, Russian Federation, (2) Institute of Fertility of Soils of South Russia, Director, 346493, Krivosheikova st., 2, Persianovka, Rostov region, Russian Federation, (3) All-Russian Scientific-Research Institute of Phytopathology, Leading Researcher, 143050, Institut st., 5-, Bol'shiye Vyazemy, Moskovskaya oblast', Russian Federation, kalinitch@mail.ru, (4) Southern Federal University, Rostov-on-Don, Russian Federation

The uncertainty and degradation of biosphere is a result of outdated industrial technologies. The incorrect principals of the nature resources use paradigm are to be radically changed corresponding to principals of Geoethics. Technological dead-end is linked to Philosophy of Technology. The organic protection and imitation of natural patterns are till now the theoretical base of technology. The technological and social determinism are proposed as the "inevitable" for humankind. One is forced to believe that the only way for humanity is to agree that the outdated way of technical development is the only possibility for humankind to survive. But rough imitation as a method of outdated technological platform is fruitless now. Survival under practice of industrial technology platform now has become extremely dangerous.

The challenge for humanity is to overcome the chain of environmental hazards of agronomy, irrigation, industry, and other human activities in biosphere, which awkwardly imitate the natural processes: plowing leads to degradation of soil and greenhouse gases emission; irrigation leads to excessive moistening and degradation of soil, landscape, greenhouse gases emission, loss of freshwater – the global deficit; waste utilization leads to greenhouse gases emission, loss of oxygen and other ecological hazards.

The fundamentally new technologies are to be generated for development of biosphere, food and resources renewing. Aristotle told that technique can go beyond nature and implement "what nature can't bring to a finish." To overcome fundamental shortcomings of industrial technologies, incorrect land use we propose the Biogeosystem Technique (BGT\*) for biosphere sustainability.

The BGT\* key point is transcendent approach (not imitating of the natural processes) – new technical solutions for biosphere – soil construction, the fluxes of energy, matter, and water control and biological productivity of terrestrial systems. Intra-soil milling which provides the new soil dispersed system synthesis – biological productivity of soil increases twice; intra-soil pulse discrete plants watering which permits to save the freshwater – global deficit – up to 20 times, protect the soil and landscape from excess water, and optimize soil water regime for higher plant's productivity; environmentally safe return of the substances into the active stage of biosphere during synthesis of soil dispersed system and (or) intra-soil pulse discrete plant watering for proper waste recycling.

BGT\* optimizes an anthropogenic carbon cycle of the Earth, reduces the greenhouse gases emission, implements conditions for green economy, provides an extension of the active area of the biosphere on Earth, water saving, soil and land health. The additional biological product, including food, raw materials and biofuels will be obtained. BGT\* can be implemented on the basis of robotics providing cost savings compared to existing industrial technologies of agronomy and environment management. BGT\* is the implementation of Geoethics in environmentally safe, productive and low cost technologies of Biosphere at the stage of Noosphere.