

Reduction of Artificial Aquatories

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The climate does not change from carbon.

The climate is changing from the artificial fumes that mankind has created. Artificial fumes differ from natural fumes in quality, volume and speed. Water is for consumption only - for drinking. But we, not understanding her essence, made her a slave. Turned into a working reagent, a means of increasing comfort. They began to use it as a liquid for washing everything and everything, move it with pumps, heat and boil, cool, dissolve all chemical elements in it, fill in the fields, destroy its molecules in the air with engines, furnaces and compressors. Almost everything that is used goes into the atmosphere, bypassing the biota, with unnatural fumes directly and from the sewer sumps. Artificial fumes destroyed the everlasting process of sedimentation, which has improved for millions of years. A different structure of water molecules of new volumes, evaporation rates form a different mechanism. New quantities create new qualities. The processes of concentration, movement, interaction with the atmosphere have changed - pressure, temperature, moisture transfer in new time parameters have changed. Uncontrollable in volume and time, precipitation is formed in other volumes, in a different quality, and falls in other places. Therefore, floods occur in some places, droughts - in others. Therefore, the level of the oceans rises - heavy clouds do not reach the mountain and polar glaciers.

The hypothesis requires proof. The proof of the hypothesis leads to discovery. The discovery should lead to a new concept. The basis of the concept is the return of its natural functions to water. These functions are embedded in wild forests and untouched areas. But with our desire for comfort, we took away more than 70% of the land from nature - flooded with reservoirs, plowed: filled up with garbage and ore landfills, structures and roads. Throughout this area there was vegetation and living creatures, which processed water into vapors and vapors having special qualities.



Figure a

You can still save life on the planet. Not by appeals and wishes, but by fundamentally restructuring our attitude to water, reducing our water needs, making this a strategy of every state, every person. Nature urgently needs to return its natural process of water circulation.

All actions, works, movements on green technologies, reduction of carbon dioxide emissions, alternative energy, conservation of biodiversity, protection and restoration of nature - all this is combined in a single direction.

There are such opportunities, if you use the experience of developed countries, implement many inventions to reduce artificial fumes, reduce water consumption. It is known that in the Scandinavian countries and Japan there are no more landfills; in Israel, plant products are grown with minimal water consumption. Widespread houses with vertical and roof landscaping. There are inventions that allow generating electricity without reservoirs in rivers. There are ways to economically consume water on airplanes and trains. A new technology has been developed for deepening the bottom of the rivers through the use of water movement, with minimal energy consumption, without pollution of coastal areas and saving them from flooding.

All such measures should be developed and applied when using water in all technologies in all cities and countries. Only returning it to nature, the accumulated water cycle for millions of years, can reduce natural disasters and stop climate change. Performing such tasks is necessary for the whole world, each enterprise, each country, each person.

More details at <https://juniperpublishers.com/jojwb/JOJWB.MS.ID.555551.php>

One of the main elements for reducing artificial evaporation is the cessation of the construction of hydroelectric power stations with flooding of the area and the release of all previously constructed reservoirs. This is the conclusion reached by the Chinese experts of the PRC Academy of Sciences: http://www.trud.ru/article/27-11-2018/1369666_kitajskie_akademiki_prizvali_snesti_tysjachi_ges_na_reke_jantszy.html. In the United States, for example, over half a century, more than 250 unprofitable hydroelectric power stations were decommissioned - <https://glavred.info/politics/404585-ges-dneprovskogo-kaskada-ili-mina-zamedlennogo-deystviya.html>.

Complete and unconditional cessation of design and construction of new hydropower plants with accumulation of water. Chasing the reduction of carbon dioxide emissions, mankind is increasing its hydropower capacity. But at the same time it further increases the artificial evaporation.

In total on the globe - http://ekolog.org/books/21/5_2.htm - to date, over 30 thousand reservoirs have been built, the total volume of which is about 6 thousand km³. The total area of the world's reservoirs is 400 thousand km², which is slightly less than the area of the Black Sea.

<https://amp.energybase.ru/news/companies/burejskaa-ges-ustanovila-sutocnyj-rekord-po-vyrabotke-elektroener-gii-2019-09-19>



Figure b

Development continues and flooding of the remaining land: <http://www.georgiatimes.info/news/69279.html>: Georgia is building 17 new hydropower plants.

In Russia: <http://ru-news.ru/eco.php>.

In 2008-2011, eight were put into operation to provide water resources to the water-deficient regions of Russia. reservoirs, construction of seven more has begun.

In China: <http://www.saveplanet.su/mynews.html>.

China will direct about \$ 80 billion to change the direction of the rivers.

Projects are circulating in Kazakhstan on the transfer of Siberian waters to the west.

Gradual release of all artificial reservoirs in the world. There is a wonderful idea of Professor V. Bodyakin, who proposed the preservation of the electric power industry with existing capacities without water storage in the reservoirs: <http://5-bal.ru/geografiya/77972/index.html>. The proposal has prospects for the further development of energy with maximum preservation of water quality. Evaporation from an open water surface is a short-circuited or reduced branch of the cycle, provided by nature in a certain historically established volume. New artificially created reservoirs are unnatural.

Flood spills occurred earlier, but not on such a scale. Intensive river clogging with debris, waste from settlements and enterprises, especially in urban areas and downstream, is added to natural bottom sediments. Shoal of rivers and increased rainfall are the main causes of flooding.

A new strategy is needed to control the movement of water in rivers to prevent flooding by cleaning and deepening the bottom of the rivers - the neutralization of anthropogenic interference in channel processes. There are innovative developments to deepen the bottom of the rivers using the forces of the water flows of the river itself.

Existing methods of preserving water in rivers are based on the creation of bulky dams with flooding of large areas in front of hydroelectric power stations. Man-made reservoirs are built on all residential continents, occupy more and more large areas with the destruction of the last biota. For example, In China - <http://www.rukivnogi.com/articles/top-10-samyh-bolshih-ges-v-mire>: "A large reservoir with a capacity of 22 cubic meters was formed in front of the dam. km of water and having a water mirror area of 1045 square meters. km In Brazil, 24 power generators have recently been in-

stalled on the dam. The volume of water in the reservoir almost reaches 46 cubic kilometers, and the surface area of the water is 2430 square kilometers. In Russia, the dam of a hydroelectric power station holds the bulk of the large Krasnoyarsk reservoir, which has an area of a water mirror of about 2000 square kilometers. "The main trouble of all reservoirs is the risk of a breakthrough and the destruction of everything below the dams. But the big trouble is that biota disappears under the mirror of the reservoir, and with it the mechanism of water transformation by animals and plants, which has been accumulated for millions of years. The natural and main land route of water created by nature is movement along the food and plant paths of biota. Humanity destroys the last natural areas. Added to this is the latest, recently discovered factor - mountain glaciers are shrinking and may disappear. It follows that all landlocked drainage reservoirs begin to dry out. It is possible that precipitation in the usual places will stop altogether and extensive desertification will begin. Large, expensive reservoirs will turn out to be not only completely unnecessary, but also sources of dust like the Aral.

Overflowing waters and devastating floods have become commonplace. By nature, water continuously flushes particles of soil from the shores, dissolving the necessary substances. To this was added the human factor - garbage, industrial waste discharged into the rivers of settlements, form "blood clots" - underwater dams along the water flow in the channels along the cities and downstream. It is here that the water comes out of the shores most of all. To avoid this, you need to contain depths, regularly remove sediment and debris.

To meet human needs, it is necessary to fundamentally review the possibilities of water accumulation in rivers.

Considering the levels of rivers and their floodplains, you can find a sufficiently large difference in the heights of the water level in the river and the height of the banks of the floodplains. In fact, a narrow winding river at the bottom of the floodplain takes from 1 to 10, 50 percent of the floodplain. The meandering or gradual change of the riverbed is provided by nature for the dissolution of mineral and organic substances from the untouched soil of the banks in order to transfer them to downstream animals and plants. The river "cares" for biota. The entire area of the floodplain, periodically washed out by spring waters, is a drying stone-sand bank. In the process of meandering, the waters of the river reach the pristine banks, erode, bring them down, forming floodplains and canyons. Such destruction is provided by nature itself to provide biota with a variety of minerals. The drying bottom of floodplains after passing through large waters becomes evaporators of water separated from organics - without performing their functions. This is natural, but wrong. Obviously, there are flaws in nature.

Is it possible to preserve these natural responsibilities of water and create water storage for moderate water supply in cities and reduce useless evaporation? The creation of huge reservoirs in front of hydroelectric power stations solve such a problem, but they destroy large areas and the water in them stagnates and blooms.

Most rational the task seems to be to use flood plains in spring and consumption in summer. Floodplains with high banks are almost ready reservoirs. If you ensure constant contact with the soil of the coast, you can combine the interests of nature and human needs. To do this, it is enough to build dams with height up to the calculated necessary floodplain height in the given places in order to ensure water contact with the pristine banks. Many of these dams can form a cascade of lakes with running water with a depth of 1, 10, 20 meters, depending on the depths of the floodplains. It is necessary to fill not completely, but to the middle, maybe 70 - 90%.

A significant difference from cascades of large rivers such as the Volga and Yangtze is a sufficiently high flow rate, which does not allow long-term storage of water, leading to its flowering and overgrowing. And contact with the soil is achieved to dissolve the minerals.

Small dam heights - from 1 - 2 to 10 - 20 meters - do not pose a threat to coastal territories. They do not protrude above the surrounding areas, fill only natural - barren and lifeless floodplains and bare canyons. Depending on the characteristics of the rivers and the possibilities of creating a chain of reservoirs, culverts are constructed in the body of such dams to take water, spawn fish, move ships and regulate levels in adjacent basins. It is also possible to install small hydropower plants operating at a small elevation difference. There are no problems with dam structures 5 - 20 meters high. Uses ordinary earth moving and road equipment. The sand and gravel mixture for the dam body is taken from the bottom of the same floodplains. This additional depth or volume of accumulations is a fairly reliable natural reach, corresponding to the natural movement of water in the river.

<https://yandex.com/collections/card/5b6c69c401d8a400866a7a2b/>

Figure 1 shows a section of a river in a floodplain. Having blocked the floodplain in several places with dams of 2-5 meters, you can create a chain of reservoirs and save water for a long time.

There is a combination of human needs and beneficial effects on natural characteristics - more extensive access to water is provided to the soil, favorable conditions for fish are created and coastal areas are enough for summer water to accumulate. And shipping opportunities also appear.



Figure 1



Figure 2

Such a transformation provides a harmonious connection of the full flow of rivers and human needs: Figure 2 Better smaller, but more full-flowing, than narrow and dry rivers flowing into giant reservoirs.

There are places where there are no floodplains, and, precisely, in these places water overflows the banks, often with floods. And the floods in them come from the same reasons - silting and raising the bottom. All rivers along the longitudinal profile of the bottom are a saw, teeth up or alternation of reaches - depths and rifts - shallows. So these natural stretches must be deepened to depths sufficient to allow the passage of spring water, and rifts - shallows rise to a level just below the coast. Streams can be controlled through culverts.

Work to deepen and reclaim dams can be performed by existing earthmoving equipment. At great depths - more than 2-5 meters, dredges are usually used. They are bulky, energy-intensive and require a fairly voluminous labor. There are a number of inventions that make it possible to carry out any dredging work with minimal cost and solve the tasks. They mainly use the forces of the flow of the river itself. The invention is described in the articles: <https://www.omicsonline.org/open-access/prevention-of-floods-2332-2608-1000246-94678.html>, <https://www.actascientific.com/ASAG/pdf/ASAG-02-0128.pdf>.

All these inventions are made in the form of patented technical solutions and require research and development.

Thus, it is possible to conserve water of the same volumes as in reservoirs with bulky dams, but without the risks of technological disasters and for the benefit of nature. In piedmont and mountain rivers, a chain of lakes with regulated downflows can become an obstacle for mudflows, and the water surface that covers narrow, blurry, disfigured multi-meter high canyons among spruces will decorate the mountain landscape, water gains access to fertile soil and is enriched with its salts. The river becomes a distributed reservoir of water, which changes the mode of small and drying rivers. They can become shipping, can generate electricity, according to the ideas of V.I. Bodyakina. Where there is no hydroelectric power station, it becomes possible to create micro hydroelectric power stations distributed along the entire length of the river. But most importantly, lifeless floodplains are used, areas are freed from gigantic volumes of water, and the soil restores natural evaporation.

In addition, new, unprecedented properties are added - all rivers and even small ones become fish breeding, with bridges in specified places, the possibility of organizing beaches, recreation areas. Small rivulets become navigable, and will not dry out during dry periods. Culvert Management Features constructions will allow to exclude the movement of ice in the spring, and, consequently, floods due to congestion and blockages. In mountain rivers, a new village defense strategy is being created. Eliminates the need for construction of bulky dams, such as at Medeo in Almaty.

An important factor in reducing political tensions in the world, if such a concept is adopted, will be that all transboundary rivers will cease to be problematic in the distribution of water between states.

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