

To Preserve Climate, Humanity Must Change Their Attitude to Water and Rivers

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The leaders of many countries are blocking roads, bringing in thousands of bags of sand and clay, raising the banks, dike houses, pumping out water from basements, evacuating residents. Flood protection is planned and carried out in advance. Huge amounts of money are spent on this every year.

Maybe all these actions are aimed at the planned reduction of the world's population? There is no action, no real assessment and no movement to prevent floods.

In the summer, all the water leaves and it is not enough for drinking and irrigation. To prevent this, high dams are created with flooding of vast areas. All dams require repairs, maintenance, reconstruction. But many countries persist in building new reservoirs. The construction of dams above the banks of rivers is a crime against nature. Each such structure is a potential disaster. Like a glass that is bound to break someday, so will dams someday collapse.

Considering and analyzing the causes of floods in a variety of open publications, one can notice that among them the most important, or rather, the main and only true reason, the change in the bottom of the rivers, is almost invisible.

Increased volumes of spring waters and heavy rains do not fit into the riverbeds. Why don't they fit in? Because the depth of the rivers decreases continuously, daily and every minute along its entire length. To the natural sources of bottom sediments from eroded shores, clogging by humanity itself is added - industrial waste, feces, garbage, soil and various materials washed away by floods and periodic rains.

For millions of years, bottom sediments - minerals washed off the coast, gradually and regularly, lying on the bottom, dissolve over time, and are consumed by plants, animals, bacteria. Unknown to nature, a layer of human waste reduces these contacts and reduces the volumes of historically needed solutions. And they

are also needed for land biota, lakes, seas and oceans, and for humans too. Melted mountain water has no salts.

Nature did not provide for the appearance of waste of such volumes and such qualities at the bottom of the river, and the water does not have time to purify itself.

No need for floods. There is only one such possibility - annually or periodically to prepare river beds for increased volumes of water passage - to prevent shallowing of the bottom. Along the entire length of the river. Keep the river beds in the state that was before the advent of civilization.

Modern dredging technology has grown into a mighty industry with an arsenal of floating monsters of hundreds of tons of metals, plastics and a variety of other materials, devouring their rivers of fuel, using labor resources.

Each city or any other settlement on the banks of a river is an entity, and a river is an entity that in a given location depends on the coastal settlement. The river flows through many cities, settlements, countries. Each settlement can install a dam, straighten the meanders, concrete and raise the banks, withdraw any volumes of water, throw off and drain garbage, waste, feces. And what is happening between the settlements, humanity ..., at least, is not interested. But this is the main cause of floods. Between the settlements there is a raised bottom and does not allow passage of excess water. The river must be deepened along its entire length.

Not every coastal farm can buy or rent a commercial dredger to deepen the river bed. Modern technologies for deepening the bottom of rivers do not solve the problems of cleaning the bottom along the entire length.

Each river along its course alternates banks that go close to the surface of the earth and canyons or water valleys, floodplains with high banks, along the bottom of which river channels run, occupying insignificant parts of the floodplain profile. The filling of part of such floodplains by half can become the accumulation

of water for consumption by the population. Here, a dam is washed and laid from raised silt up to the bank of the floodplain, which is filled up to half of the entire depth. When precipitation increases, the floodplains are completely filled. And culverts for ships and fish control the level, releasing the necessary part of the water, preventing overflows.

It is necessary to create a new principle for cleaning the bottom of rivers. Only the availability of inexpensive and accessible equipment for deepening the bottom of rivers can lead to the return of the natural regimes of water movement in their channels.

Devices based on the use of the forces of the movement of water itself are proposed. Device designs are hundreds, thousands of times smaller in volume than the metal consumption of serial dredgers, do not consume external energy. The device moves slowly along the bottom of the river, stirs up bottom sediments, washes and transports them with the current solely by the force of the current, without human intervention. The concentration and direction of movement of water flows is provided by special dampers. The device constructively uses the flow of the river, and does not require energy to move the silt and own movement. Low productivity with a continuous round-the-clock cycle will be able to pass the entire river in spring, summer and autumn before flowing into a lake or sea.

The technological process is carried out by directing the disturbed flow along a given trajectory. Zones of deep erosion are created, and bottom sediments, depending on their composition, dispersity, properties, can be brought to the coast, closer to the coast, or fit into dams and rifts in floodplain areas.

The proposed device is held behind the bottom, but not permanently, but with the ability to move, by the interaction of the current with special anchor devices and shields, which form buoyancy, windage, braking and control of the movement trajectories of raised bottom sediments.

The manufacture and operation of devices that use the forces of river water movement to form a channel within specified limits, with specified depths to restore navigation, are available to small coastal farms that suffer from floods, bank collapse, and shallowing of fairways.

Organizationally, it is possible to divide the entire river behind each coastal settlement along the length to the next settlement downstream.

Individual elements of the micromodels of the device have been tested on small rivers, but this is not enough for full-scale research and the creation of a new technology. To test and show the effectiveness of the new method in natural conditions, full-scale development tests and studies of the proposed device on various rivers are required.

Experience at a natural site will show the effectiveness and possibility of creating and developing a line of products for various standard sizes. Simplicity and low cost will allow the manufacture of many deepeners that can go along the entire length of the river and remove bottom sediments layer by layer at any distance almost without human intervention.

Widespread and simultaneous deepening of the bottom on all rivers where floods occur can eliminate them in the near future. The designs of such devices are developed for each type of water body. From small streams to great rivers such as the Irtysh, Ural, Mississippi, Nile.

Two, 10 or 100 such devices, distributed along the entire length, will be able to remove the soft layer of sediments of any river up to one or more meters deep along the entire length with round-the-clock movement. They can work continuously and in 3-9 months will be able to pass along the entire length of the river. Without fuel consumption.

The latest device is made from structures that have served their time in their field - materials at a negative cost - from a complex of decommissioned mechanisms for scrap metal. Made in the form of know-how.

The proposed devices allow you to save water from evaporation and branches to new channels of the deltas, if you remove the shoals in the main, historical channel. It will be possible to narrow the delta even to a single channel, to restore navigation in abandoned areas. For example, it is relevant for the delta of Lake Balkhash and the Kapchagay reservoir, which continue to grow.

The use of the original braking and movement mechanism, in addition to the works shown with soft bottom sediments, allows you to perform any other underwater work that is performed by existing dredgers and dredges using known serial types of existing equipment. Of course, here you have to use external energy. These are dredgers, mowers and baking powder, grabs, other mechanisms for cutting plants, lifting sunken objects and tree trunks, transporting bottom sediments to the shore. The possibilities of creating new technologies for washing and sorting bottom sediments are attractive, for example, for gold mining without lifting waste rock to the surface.

It is offered to an enterprise that can test and become the owner of a new licensed technology.