

Sort title: MAXIMUM

Title: The biggest recovery of freshwater, soil and energy, which could live the triple humanity and replace fossil fuels and nuclear energy, are completed by material and energy recovery from waste water

Abstract¹. (Package A) Until today: the rainwater has lost the hydropower, in rivers where hydro-projects are manufactured, or in tanks, which are made at low altitudes; the groundwater is polluted and for pumping is consumed energy; desalination of seawater consumes energy, while very much rainwater on mountains is lost in the sea unused; the water acidification is not manageable. These six problems could be solved if the rainwater is stored in tanks at various altitudes in the mountains. Then, most of water and hydropower will be recovered. Furthermore, for the sealing of porous areas, PV panels, clay or membranes will be used, while for energy storage, wind turbines. The water tanks will drain runoff with ducts and will be connected with pipelines. From the central reservoir the water will be drained to power stations and then for any use. So, great heads, small renewable energy cost from sun, wind and water could be achieved. These projects could produce a threefold increase of hydropower, provide optimal quality and quantity of cheap water in humanity, livestock, alimentary chain, forestry, biomass, industry and renewing of farms. The projects could provide recovery of climate change, agricultural, forestry and environment by means of a mild intervention. Also, could give the tools for the fossil fuels and nuclear energy replacement, development on mountains and a multidisciplinary policy with maximum eco-economic growth. Package B): For stimulating efficient and multiple use, recycling and reuse of water; recovery of energy and materials (such as nutrients, minerals, chemicals and metals) we will use chemistry and industrial biotechnology research, development and innovation in a sustainable way. Programming is asked for the above research.

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Key words: rainwater; water tanks; altitudes in the mountains; proposed hydro projects; collecting of runoff; ducts; watertight photovoltaics; wind energy storage; land resources; agricultural; forestry; recovery of climate change; eco-growth; renewing of farms; recovery of materials; chemistry and industrial biotechnology

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