

## **Enlivening Many Birds by Removing Stones : Rejuvenation of Mountain Rivers**

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In this paper we present Logical Frame Work of mitigating floods and droughts in mountain rivers in the western ghats - a biodiversity hot spot. We will also share the effects of the actions taken by community.

An unexpected, unassuming, solid waste which is non-poisonous and non-biodegradable ignored mostly by educated elites is cause of destruction of thousands of hectares of habitats of over hundred and fifty species of birds and over 30 species of local fish, a few hundred species of mollusks, arthropods and amphibians put together.

It is tunnel Debris. Taken out for ambitious Railway and Hydroelectricity projects. Its quantity is over 45 Million tons. This was generated in about a decade. Over the next three decades it has moved to and settled in river beds. Now those river beds are dry. Even the pools which used to retain water through out the summer are dry for over 7 months in a year. No fish in the dry pools, no nesting place.

These 45 million tons of debris heat up six months every year results in cloud bursts. Eventually this started causing floods in villages and cities along the rivers.

We understood this cause effect reasoning through working with the local communities. Now we have started a people's movement and have emptied at least about 18 kilometer length of pools in the rivers. Now those pools hold water, as they earlier did. Some fish and many birds have returned.

When removed and repurposed, these 45 million tons will become construction material and make way for 15 million tons of fresh sweet water. This water will be there through out the year quenching thirst, supporting forests, fauna and last but not the least cooling the surroundings by absorbing about 33,900,000,000,000 Kilo Joules of Heat...cooling local climate.

This is replicable, similar 'mistakes' must have happened in other parts of the world. After correcting them we can give much more cooling effect and restored habitats.