



Existential crises of riverine eco-systems: an echoing environmental epidemic in Europe and India

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Sand mining is a pressing environmental, ecological and economic problem that has now transcended national borders and regional boundaries. This ongoing challenge for rivers has been in the spotlight of policy makers but, it is yet to be locked under an adequate legislation. The presentation discusses the need for targeted legislation to ensure compliance with the spatial and volumetric limits imposed for sand mining activities, so that the conservation of water and sediment resources and the preservation of the hydro-morphological conditions of the watercourses and geo-morphology of adjacent farm lands and bank bunds can be achieved. In this regard, the analysis of existing regulations across countries is a necessity to arrive at a desirable combat cum conservation framework against the degrading dredging.

The analysis is attempted at an inter-continental level - between the European Union and India; regardless of their dimensionality within the Eurasian space and the extent of potential environmental threats on the entire population, the comparison of Indian and EU legal systems can be justified from various viewpoints. Firstly, it helps in studying the intended and implemented effects of environmental legislations within a Union of internal States (India) and a Union of Countries (EU); the underlying impact-wise distinctions between an innately centralized Domestic system and an International system with space for individuality and Sovereignty of independent States; Secondly, it helps in tracing the legislative progress and environmental reach of domestic statutes and regional agreements that stem from Constitutional mandate and International public morality respectively; Thirdly, it helps in mapping the reasons why a system with numerous sand mining legislations (like the TNMMC rules dating back to 1950s in India) and elaborate Environment Impact Assessment (EIA) guidelines has produced little impact on practical handles than the regional system with fewer soft laws (like the EU Water Framework Directive 60/EC/2000) and faint national innovations.

Since the common goal of both systems is the protection, restoration and enhancement of the health of ecologies, this comprehensive study will complement their efforts; it will stress on the science-policy interface in creating a more impactful legal regime by showcasing country-wise case studies; weighing the advantages and disadvantages of a regional system with greater space for international co-operation and a national system more dependent on internal regulation will

benefit the policy makers in improvising and fail-proofing the existing standards and green practices; the consequential hydro-sedimentary and geo-morphological impacts of sand mining can only be avoided by finding the right balance through the study of different systems.

Keywords: Sand Mining, Environmental Impact Assessment, Ecology, Geomorphology, Legislative Practices, the European Union, India.