

COMPARATIVE ANALYSIS OF THE PROPOSED WATER QUALITY MONITORING BETWEEN BRAZIL AND THE EUROPEAN UNION

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ABSTRACT:

Despite many laws about water, there is a gap in Brazil related to the monitoring of water quality, which directly influences on aquatic microbiota. Aiming to solve this problem, the National Programme for Water Quality Assessment (PNQA) was launched, this project was created by the National Water Agency. The European Union in 2000 published the Water Framework Directive (WFD), legislation that applies on monitoring and quality of European waters. The Directive is consolidated because the Europeans consider it to be the most effective way to make environmental protection. This paper compares the documents that monitor water quality in Brazil (PNQA) and the EU (WFD). Researchs were made through the legislation in place in both regions, attached article to this paper, the agencies responsible for issuing the documents and textbook, where five items were analyzed: Parameters and Indexes (Types, its importance and feasibility); Frequency (frequency of analysis and sampling); number of sampling sites; Transparency in the disclosure of data and Sanctions (If there are restrictions on the states that do not follow the protocols). The analyzes indicate differences in every item: Parameters found in PNQA: Microbiological, Biological, Nutrients and Physical-chemical; The WFD: microbiological, biological, chemical, physico-chemical, hydromorphological and radioactivity; In Brazil is analyzed only four indexes: Water Quality Index, Trophic State Index, Framework Index Compliance and Organic pollution index, and WFD are three levels: biological indicators, hydromorphological indicators, physical indicators - chemical. As to the frequency and number of points in PNQA each state adopts its own criterion for monitoring, for WFD the frequency of monitoring varies from parameter type, in addition to the different bodies of water and the number of points it is characterized as water bodies. Transparency and Penalties: In Brazil not all states disclose their data and because PNQA is not yet consolidated, States do not suffer punishment. The European model shows that decentralization in the management of water resources is efficient. WFD is an example how to improve the Brazilian monitoring process. Therefore,, the work aims to contribute to improvements in monitoring the quality of Brazilian waters, as this has a direct impact on microbial ecological diversity.

Key - words: National Water Quality Program; Water Framework Directive; Monitoring; Water Quality; Water Management.