• Area: 40,000 km² (6% of the national territory)
• 5.2 millions inhabitants (18% of the total Moroccan inhabitants) which 53% are in rural areas
• 30% of the national surface water and 20% of the underground water
• It supports important agricultural and industrial activities: 50% of the national sugar production (5 sugar production factories), the most national important paper production, intensive olive oil production, textile, …
Includes 39 important wetlands:
• 5 are Ramsar sites
• 14 are classified by Moroccan government as Sites presenting Biological and Ecological Interest (SIBE)
Policy Framework:

Water law 10/95: main objectives

• Management of water resources in the framework of a natural geographical entity « hydraulic basin »;
• Protection and conservation of water resources quantity and quality;
• Better management of water: Involvement of public institutions and users in all decision making related to water.
• Valorization of water resources (taxes) taking into account Socio-economic interests of the population.

Creation of the Hydraulic Basin Agencies

Sebou Hydraulic Basin Agency
PROBLEMS:

- Quality degradation:

“The National Office for Drinking Water (ONEP), responsible for the drinking-water supply in Morocco, faces serious difficulties in producing water of good quality at a reasonable price from the River Sebou waters. The ONEP’s three water treatment plants have been disrupted or even stopped due to the poor quality of waters received. The main source of pollution is the urban and industrial waste of the town of Fes, compounded by episodic pollution caused by the olive oil mills of Fes and its surrounding area. The ONEP study shows that the additional production costs incurred as a result of the pollution by wastewater from olive oil mills far exceeds the drinking-water rates charged in the study area » Eastern Mediterranean Health Journal, Volume 8, No. 1, January 2002
“Water samples and samples of suspended solids (SS) were collected along the Sebou and its tributaries. Results of analyses of both dissolved and particle phase constituents revealed high levels of Cu (0.25 mg/L dissolved Cu, 0.55 mg/g particulate Cu), Pb (0.23 mg/L, 0.35 mg/g), Fe (27 mg/L, 50 mg/g) and Mn (2.5 mg/L, 1 mg/g) pollution in the basin. These results drew attention to the significant input from man-made sources (industry, farming, landfills). Comparison of Fe and Mn levels against Moroccan standards shows that the water in the basin is not appropriate for irrigation purposes. Conversely, Pb and Cu levels are below standard values. Concentrations of Fe, Mn and particularly Pb also make the waters in most areas of the basin unsuitable for the production of drinking water.” Samira Azzaoui, M. El Hanbali et M. Leblanc, Water Quality Research Journal of Canada, 37(4): 773-784 (2002)
Conservation Objectives:

Maintain and/or restore freshwater habitats and environmental processes: Sustainable agriculture that uses less chemical and water promoted and facilitated; Wetland conservation policies within river basin plan promoted; PES???
If the PES/PWS approach is appropriate:

At which scale?

Who sell What to whom?

Which payment arrangement(s) is (are) the best suitable?