WASTEWATER TREATMENT OF CHOUARA TANNERY, Fez-Morocco

Water pollution through a craft activity

INTRODUCTION:
Morocco is one of the countries that are threatened by the scarcity of water. In 2030, annual wastewater discharges will increase to 901 million m³ (ESEC, 1994). On the other hand, there is a great potential for rejection that can be reused after it is processed.

ISSUES OF THE TANNERY:
- The pollution of Sebou river through a craft activity.
- The wastewater from tanning activity contains heavy metals, the most dangerous one is «Mercury».
- The discharge of wastewater is directly done in Boukhrareb creek who pollutes himself Sbou River.
- The ponds (kassriyat) are emptied directly at the level of the gaps between the tanning ponds (they reach a major pipeline thanks to a natural slope), then it is spilled into the river through a pipeline «Mercury».

OBJECTIVES:
- Reduce bad odors after wastewater treatment and provide desinfection
- Treat the tannery wastewater to be reused by the tannery
- Improve the quality of water.
- Long-term investment.
- Improve the quality of the product.
- Preserve the artisanal side of the tannery.
- Help the artisans live and work comfortably.

THE TANNING PROCESS:
1. Soaking: The skins are soaked for 7 days in a mixture of water used per day around 2076 m³ of water (household waste, industrial waste ...) and the last 2 coliforms have an animal origin.
2. Washing and Pigeon droppings:
3. Bating:
4. Drying:
The skins are hung to dry.
5. Delivery:

BACTEROLOGY OF RAW SAMPLES ANALYSIS: Bacteria desinfection

HEAVY METALS RAW SAMPLES ANALYSIS: Degradation of pollutants

WASTEWATER TREATMENT METHODS / COMPOSITIONS:

PHYSICO-CHEMICAL RAW SAMPLES ANALYSIS: Reduction of COD

FINAL EXPECTATIONS FROM THE PROJECT:
- Preserve the artisanal side of the tannery.
- Help the artisans live and work comfortably.
- Improve the quality of the product.
- Improve the quality of water.
- Contribute in the depollution of Boukhrareb creek and Sbou river.
- Final expectations after wastewater treatment and provide a better hygiene in the tannery.