**REPORT**

**ON**

**LEATHER INDUSTRY**

**Leather** is a durable and flexible material created by tanning animal rawhide and skin, often cattle hide. It can be produced at manufacturing scales ranging from cottage industry to heavy industry.

**Types of leather**:

Basically leather is sold up in four types and they are as follows:

* Full grain leather
* Top grain leather
* Corrected grain leather
* Split leather

**Manufacturing Process:**

The leather manufacturing process is divided into three fundamental sub processes: preparatory stages, tanning, and crusting. All true leathers undergo these sub processes. A further sub process, surface coating, can be added into the leather process sequence, but not all leathers receive surface treatment. Since many types of leather exist, it is difficult to create a list of operations that all leathers must undergo.

The preparatory stages are when the hide/skin is prepared for tanning. Preparatory stages may include:

* Tanning process
* Preparation of the raw pelt for tanning
* Pretainning, tanning and retanning
* Dyeing
* Fatliquoreing and drying
* Finishing

Since time immemorial man has been utilizing raw hides & skins to protect him from extremities of weather. As the civilization progressed he learnt the techniques of preserving these putricible hides & skins in to leather by use of various vegetable tanning materials. Over the years with development of science and technology, the manufacture of leather from raw hides & skins by crude method has change to a state of art and technology by using sophisticated machinery and modern chemicals.

Finished Goods of leather:

Commodities that will not undergo further processing and are ready for sale to the final demand user, either an individual consumer or business firm. This includes unprocessed foods such as eggs and fresh vegetables, as well as processed foods such as bakery products and meats. This also includes durable goods such as automobiles, household furniture and appliances, and Nondurable goods such as apparel and home heating oil. Some finished goods are: bags, belts, jackets, shoes, wallets, seat covers etc.

Waste generated in leather industry:

The leather processing industry produces large amounts of solid organic wastes in the form of un-tanned  (trimmings , fleshings, splits) and tanned (trimmings, splits and shavings) waste from raw hides and skins, semi-provessed leather, as well as sludge as a result of wastewater treatment. If these solid wastes are not properly treated and disposed of, they can cause environmental damage to soil and groundwater as well as emissions of odour and poisonous greenhouse gases into the atmosphere.

The conventional leather tanning technology is highly polluting as it produces large amounts of organic and chemical pollutants. Wastes generated by the leather processing industries pose a major challenge to the environment. According to conservative estimates, more than 600,000 tons per year of solid waste are generated worldwide by leather industry and approximately 40–50% of the hides are lost to shavings and trimmings.

Everyday a huge quantity of solid waste, including trimmings of finished leather, shaving dusts, hair, fleshing, trimming of raw hides and skins, are being produced from the industries. Chromium, sulphur, oils and noxious gas (methane, ammonia, and hydrogen sulphide) are the elements of liquid, gas and solid waste of tannery industries.

Conclusion:

The quantification of the wastes produced is a difficult task; the production data (number of pairs of shoes, number of gloves care not available on a world-wide basis except for leather and for leather footwear. The calculations for the other products have been made from exportation data which do not represent production. However, with the figures obtained, it seems that Asia is the 1st region regarding the production of wastes in the leather sector. It is producing more than 60 % of the wastes in the world. Leather scraps represent a large part of these wastes; at the same time, scraps from wet blue (tanning process) are very important too. In most cases, internal reduction solutions cannot reduce the quantities of waste very much and internal recycling solutions can only be applied in large scale to thermoplastics.