CHAPTER II: ROLE OF LIVESTOCK AND ITS IMPACT ON ENVIRONMENT

- Livestock are an important and sometimes overlooked element of the livelihood strategies of the poor. As much as 70 percent of the rural poor depend on livestock to some degree.

- Domesticated livestock have played a **pivotal** role in the development of human civilizations around the world and continues to be an integral part of human culture, society, and the local and global economy

- Livestock has contributed to the rise of human societies and civilizations by increasing the amount of food and nutrition available to people in four ways: meat, milk, and fertilizer. It have provided leather, wool, other raw materials, and transport

- Livestock furnish high quality protein and energy, and function as par t of integrated, renewable systems of plant and animal .The digestive systems of **ruminant** such as cattle, sheep, goats, and camels are specially adapted to convert plant materials that humans cannot utilize into proteins of high biological availability to humans.

2.1.Economical role

Livestock are a crucial source of financial capital for the rural persons. For many, livestock ownership is the only form of savings available. In fact, for pastoralists and often for poor women, livestock are the most important fungible asset they own.

2.2. Social role

Livestock play a prominent role in social and cultural relationships. Loans and gifts of livestock contribute to family and communities and often play a central role in cultural traditions such as weddings and funerals.

2. 3.Livestock impacts on environment

The challenge is to reconcile two conflicting demands: for animal food products and environmental services.

Livestock production is one of the major causes of the world's most pressing environmental problems, including global warming, land degradation, air and water pollution, and loss of biodiversity.

2. 3. 1. Deforestation

- Grazing occupies 26 percent of the Earth's terrestrial surface, while feed crop production requires about a third of all arable land.
- Expansion of grazing land for livesto ck is a key factor in deforestation, mostly because of **overgrazing, compaction and erosion attributable to livestock activity**.

2.3.2. Greenhouse gases.

- At the same time, the livestock sector has assumed an often unrecognized role in global warming.
- 37 percent of anthropogenic methane, mostly from enteric fermentation by ruminants, and 65 percent of anthropogenic nitrous oxide, mostly from manure

2.3.3 Livestock impact on water

- Impacts heavily the world's water supply, , mainly for the irrigation of feed crops.
- Water pollutants, principally animal wastes, antibiotics, hormones, chemicals from tanneries, fertilizers and pesticides used for feed crops, and sediments from eroded pastures.
- Livestock and feed crop agriculture are responsible for pesticide use, antibiotic use,
- Nitrogen and phosphorus loads in freshwater resources.
- The sector also generates almost two-thirds of anthropogenic ammonia, which contributes significantly to acid rain and acidification of ecosystems.