



# Climate Change and Livestock Production: A Review

Behera G\*, Madhimita M

Department of Agricultural Engineering, School of Agricultural & Bio-Engineering, Centurion University of Technology & Management, Odisha, India

\*Corresponding Email: gitanjali.behera@cutm.ac.in

---

## Abstract

Livestock is farm animal who are raised to make profit and food. This sector provides us meat, eggs, dairy, wool, and leather etc. In developing country, the livestock system is changing rapidly for a variety of drivers. The population of human in the world is increasing day by day from 6.5 billion today to 9.2 billion by 2050 which will ultimately increase the demand for more livestock. Livestock production accounts for one-third of the total global crop which competes for water, land, energy and labor. In a developing country like India, the poor people are depending more on livestock farming compared other developed country. But these things are getting challenged due to change in climate. Physical and biological systems are have been changed significantly in most of the oceans and continents due to high warming temperature. The increase in greenhouse gas emission causes a major change in the climate. Changes in herbage growth are caused by the concentration of carbon dioxide in the atmosphere. The hot and humid condition causing heat stress may affect the productivity of livestock and their metabolic activities. Water is also a major factor in growing livestock. It is used in farm production and production of their feed, for processing of feed crops which use water directly or indirectly. Due to water pollution by different industry, the vulnerability of livestock for getting diseases is increasing. The effect of climate change is impacting the biodiversity of the livestock which is a threat to human food security. The important mitigation is to go green, decreasing the emission of greenhouse gasses. The farming habit should be chemical free, organic and biodynamics. These things can protect the livestock and there will be a proper balance between income, environmental objectives, and food security.

**Keywords:** Livestock farming, greenhouse gasses, humid condition, biodiversity, food security

---

In developing countries, livestock system is completely changing due to different drivers. Human population is increasing day by day from 6.5 billion today to 9.2 billion by 2050 which will ultimately increase the demand for more livestock. Rapid urbanization demands for the livestock is increasing day by day (Delgado *et al.*, 1999). So it is important to consider the changes in livestock system and the effect of this change on poor people livelihood. The changes in climate will affect the natural resource side with market side also. Therefore there is a need of mixing of technologies, institutional innovation for solving this complex problem. With improving technology, this changes will be linked with different

systems like feed, nutrition, breeding, health, genetics, environment management etc. Livestock production accounts for one-third of the total global crop which competes for water, land, energy and labour. In a developing country like India, the poor people are depending more on livestock farming compared other developed country. But these things are getting challenged due to change in climate.

**How to cite this Article:** Behera G\*, Madhimita M, 2020, Climate Change and Livestock Production: A Review, 8(Special Issue) : p 141–146.

**Source of Support:** None; **Conflict of Interest:** None