

CENTRE FOR RURAL DEVELOPMENT**ARURVAC01- Sustainable Rural Livelihoods And Adaptations To
Climate Change (SLACC)****Learning Objectives**

The students will be able

- Understand climate change
- Adaptation for Sustainable rural livelihoods
- Earth Sciences and Natural Resource
- Climate Change and Adaptation Planning

Course Outcomes

After completion of the course, the students will be enable to

- will be able to work in Climate Change related Projects
- can get the complete information on natural Resources

Unit I Sustainable Rural Livelihoods

Concept of Sustainable Rural Livelihoods (SRL) –Objectives – Strategies –Issues-Natural Resources conservation and SRL – Sustainable Crop Production – Indigenous Animals Breeding – Health & Nutrition – Income generation.

Unit II Climate Change(15 Hours)

Climate Change – Components – Natural Resources Management(NRM) – Water Resources – Land Resources – Forest Conservation – Joint Forest Management (JFM) – Watershed Management – Eco-environmental Sustainability – Conservation of Local Water Bodies – Kudimaramathu System – Rainwater Harvesting – Indigenous Methods & Techniques.

Unit III Earth Sciences and Natural Resources

Earth Sciences and Natural Resources – Water Table – Ground Water Recharging Structures – Natural Vegetation – Geospatial technology – GIS – Geo-informatics – Geo-morphology – ISRO and Rural Development – RESPOND Projects – Remote sensing – Resource Mapping – Types, Methods & Techniques.

Unit IV Adaptation Techniques

Adaptation Techniques – Concepts – Weather Crop Advisory Services (WCAS) – Livestock Advisory – Vermicompost – Soil Resources Development – Tree Based Nursery & Cropping – Organic – fertilizers & Pesticides:- Production & Usage Zero Tillage – Direct Seeded Rice – Crop Intensification – Solar pumped Irrigation.

Unit V Climate Change and Adaptation Planning

Climate Change Adaptation Planning – Technology & Knowledge Management – Village Tool Bank – Community Managed crop Production & Resource Conservation: Approaches and adaptation package – Exposure Visit and Observation - Applications and Present Trends- Thoughts- Ideas Sharing – Community based Initiatives- Results and Impact.

Text Books:

Ajoy (2016) Environment and Biodiversity, Mittal Publications

Gangopadhyay (2018) Plant Biodiversity, Sage Publications

Regina et.al, (2019) The Global Environment: Institutions, Law and Policy, Sage Publications

Supplementary Readings:

Dan Egan, 2019. The Death and Life of the Great Lakes. Texas: Barnes & Noble

Security, Washington: Food and Environment Program

Sumita Sarkar Globalization and Gender, London. Longman

Todd Miller, 2019. Storming the Wall, Climate Change, Migration, and Homeland