

## **Farming Based Livelihood Systems 3(2+1)**

### **OBJECTIVE:-**

1. To make the students aware about farming based livelihood systems in agriculture.
2. To disseminate the knowledge and skill how farming based systems can be a source of livelihood.

### **THEORY-**

Status of agriculture in India and different states. Income of farmers and rural people in India. Livelihood-definition, concept and livelihood pattern in urban and rural areas. Different indicators to study livelihood systems. Agricultural livelihood systems (ALS); meaning, approach, approaches and framework. Definition of farming systems and farming based livelihood systems prevalent farming systems in India contributing to livelihood. Types of traditional and modern farming systems. Components of farming system/ farming-based livelihood systems- crops and cropping systems, livestock, (dairy, piggery, goatry, poultry, duckry etc.). Horticultural crops, agroforestry systems, aquaculture, duck/poultry cum fish, dairy cum fish, piggery cum fish etc. Small, medium and large enterprises including value chains and secondary enterprises as livelihood components for farmers. Factors affecting integration of various enterprises of farming for livelihood. Feasibility of different farming systems for different agro-climatic zones. Commercial farming-based livelihood models by NABARD, ICAR and other organizations across the country. Case studies on different livelihood enterprises associated with the farming. Risk and success factors in farming-based livelihood systems. Schemes and program by central and state government, public and private organizations involved in promotion of farming-based livelihood opportunities. Role of farming based livelihood enterprises in 21st century in view of circular economy, green economy, climate change, digitalization and changing life style.

### **PRACTICAL:-**

Survey of farming systems and agriculture-based livelihood enterprises. Study of components of important farming-based livelihood models/ systems in different agro-climatic zones. Study of production and profitability of crop based, livestock based, processing based and integrated farming based livelihood models. Field visit of innovative farming system models. Visit of agri-based enterprises and their functional aspects for integration of production, processing and distribution sectors and study of agri-enterprises involved in industry and service sectors (value chain models). Learning about concept of project formulation on farming-based livelihood systems along with cost and profit analysis. Case study of start-ups in agri-sectors.

### **SUGGESTED READINGS :-**

1. Agarwal A and Narain S, 1989, Towards Green Villages: A strategy for Environmentally, Sound and Participatory Rural Development, Center for Science and Environment, New Delhi.

2. Ashley C and Carney D, 1999, Sustainable Livelihoods: Lessons from Early Experience; Department for International Development: London, UK, Volume 7.
3. Bhatt BP, Abhay Kumar, Thakur PK, RS, Amitava Dey UK, Sanjeev Kumar BK, Jha, LK, Pathak KN, Hassan A, Singh SK, Singh KK and Singh KM, 2014, Livelihood Improvement of Underprivileged Farming Community: Some Experiences from Vaishali, Samastipur, Darbhanga and Munger Districts of Bihar by ICAR Research Complex for Eastern Region ICAR Patna, P.O. Bihar Veterinary College, Patna - 800 014, Bihar.
4. Carloni A, 2001, Global Farming Systems Study: Challenges and Priorities to 2030 – Regional Analysis: Sub-Saharan Africa, Consultation Document, FAO, Rome, Italy.
5. Dixon J, Gulliver A and Gibbon D, 2001, Farming Systems and Poverty: Improving Farmers' Livelihoods in a Changing World, FAO & World Bank, Rome, Italy & Washington, DC, USA.
6. Evenson RE, 2000, Agricultural Productivity and Production in Developing Countries', In FAO, The State of Food and Agriculture, FAO, Rome, Italy.
7. Panwar AS, Ravisankar N, Prusty AK, Shamim M, Singh R, Bhaskar S, Malik SK, Tomar RK, Arunachalam A and Alagusundaram K, 2019, Integrated Farming System models for Agricultural Diversification, Enhanced Income and employment, Indian Council of Agricultural Research, New Delhi.