

## **Nepal Agricultural Policy Issues and Projection**

**Agricultural Perspective Plan (APP) (1997-2017): This is a major strategy plan adopted by the His Majesty's Government of Nepal.**

**Key implementer: Ministry of Agriculture and Cooperatives (MOAC)**

### **Key Priorities:**

- **Food Security:**
  - Rice- 1.6 Mha (Rice alone about 50% of the total food production)**
  - 1. Maize - 0.85 Mha**
  - 2. Wheat - 0.66 Mha**
  - 3. Potato - 0.2 Mha**
- **Commercialization of Agriculture**
  - 1. Inputs driven**
  - 2. Diversification for commercialization and promote export potential.**
- **Natural resource management for sustainability**

### **Key inputs to drive:**

- **Fertilizer - 6 times the present level kg/ha (30 kg/ha)**
- **Irrigation - 27 % (0.9 Mha) to at least 50 % of the total agricultural land (1.5 Mha).**
  - **Ground water in the Plains**
  - **Surface (canal) irrigation less priority due to high cost**
- **Improved seeds**
- **Technology**
- **Infrastructure**
  - **Rural electrification**
  - **Rural roads**

- **Subsidy: No priority due to globalization policy. The subsidies will be gradually phased out.**

### **Climatic Variability and Agriculture**

- **The country study on climate change under UN Framework on Climate Change (UNFCCC) with IPCC guidelines is in progress and report to be submitted due October, 2002.**
- **A project proposal has been submitted to WMO to establish Automatic Agro-meteorology stations at about 25 stations under Department of Hydrology and Meteorology (DHM). They will be mostly stationed at NARC research farms at different agro-ecological regions of Nepal.**

**The objective to provide instant weather information and agriculture at regional level. To make this effective, a core committee of *Agro-Meteorologist, Agricultural Expert, Irrigation Specialist, and others* will be formed to serve as advisor at Regional level.**

**This will demand linkage between climate and agriculture models to provide in advance the agriculture production estimation to farmers to policy level.**



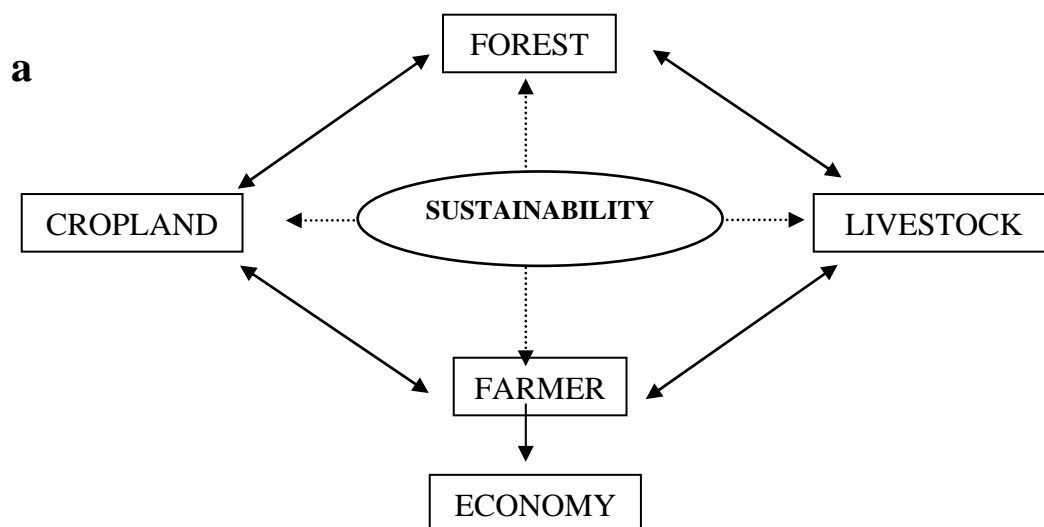
*Fig. 1. A maize germplasm thrives to adapt even at 3500m. under farmer's conservation effort.*



*Fig. 2. If the global warming occurs, the Himalayan economic asset like yak will face adaptation problem forcing to move upward beyond the reach of human settlement.*

## Sustainability:

Over time, Nepal Tarai (The Indo-Gangetic plain of Nepal) is to bear the burden of food production to sustain growing population. The present thrust of farming system is the key concern to maintain production system in proportion to population growth. If we look the crops yield per unit area, it is still well below their potentials. Key inputs: improved seeds, fertilizers, irrigation are either not met in a balanced way, or under utilized or over utilized in some locations. The potential to raise cropping intensity from present level of 175% to 200% is there. There should be a trade off between natural resources utilization and level of crop intensification to attain. But the central issue of soil fertility management without adversely affecting the natural resources needs to be clearly addressed. This involves the integrated use of soil, water, forest base and modern inputs such as fertilizer, pesticide and others in a balanced way. Because of the population pressure and exhaustion of the forest base resources, land system is approaching more of degraded condition resulting in the loss of soil fertility in agricultural lands. These all require bringing together biophysical processes with socioeconomic issues in an integrated manner, which should become environmentally and economically sustainable.



**Co-existence and Complementarity of Renewable Natural Resources.**

## **Projections:**

**Nepal to resolve the emerging issues of global environmental changes keeping the view that food security is the most important need of today, the following few projections are proposed:**

- **The reduced tillage practices in the rice-wheat system that can save large amount of carbon emissions.**
- **Minimizing methane and nitrous oxide emission in rice fields through improving the efficiency of fertilizer use and soil management.**
- **Agro-forestry practices to convert unproductive croplands and grasslands to agro-forestry to soak up maximum atmospheric CO<sub>2</sub> buildup (Crop diversification) and enhance carbon sequestration.**
- **Slowing deforestation by reducing slash and burn agricultural practices.**
- **Building institutional capability in climate and weather change and agriculture.**
- **Future climate prediction and agriculture**
- **Bio-diversity conservation: Forest : Agric. land ratio (2:1)  
Crop germplasm conservation**