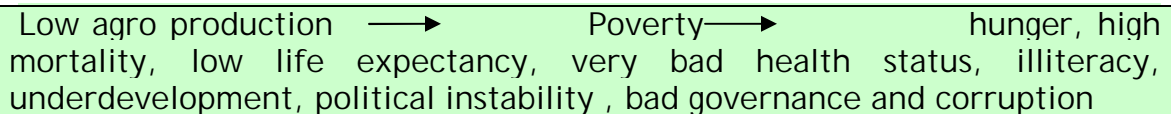


Hybrid Seeds for Karnali Region: an attempt to reduce external food dependency

Background:

Karnali Zone has very low agriculture production. This has caused food deficiency. The food deficiency has resulted external dependency for food grains. This dependency and out-flow of their very limited money has further deepened poverty. And the cause of all the prevalent miseries of the Karnali (hunger, high mortality, low life expectancy, very bad health status, illiteracy, underdevelopment, political instability and bad governance and corruption) is POVERTY.

Consequently, the vicious circle of poverty is:



The reasons behind low agro production are:

1. Geographic Cause:

- The sloppy rocky topography: It has very less human control.
- Cold climate: It has also very less human control.

2. Economic Cause

- Low land-holding per household: It is due to population increase and it is ever increasing process.

3. Technological and scientific Cause

- Traditional(unscientific) method/technology of cultivation: Despite the need of more production due to population increase and low land holding people are continuing with the same old methods that they applied when they used to hold large plots of land and they had few people to feed.
- Low yielding breed: The low yielding breeds are producing less amount in tow ways. First, simply their production quantity is very low. Secondly these low yielding breeds take very long time to grow and be ready to harvest. For example, the hybrid potato can be harvested in three months while the local breeds take more than seven months! So twice cultivation is possible in the same land with the hybrids and the hybrids yield very high!

4. Cultural Cause

- Conventional farming: In conventional farming people are not market oriented. They produce every thing what they need for the year around in what ever land they possess. They grow cereal, vegetable, fruit, legumes, spices and all because they try to be self As a resultr no crop is enough for them.
- Conservative food habit: The farmers belive that they need to eat cereals to survive. So every farmer grows cereals. They do not seek for comparative advantage of what they can grow according to their land and environment.

Our way out

To solve the above four causes of low production it is almost impossible to bring changes directly on first two causes: geography(nature) and economy (caused by population increase and fragmentation of land).

However, we can address technological and cultural reasons. Our attempt is to change the traditional low yielding cultivation and conventional farming for high production.

For this people will be made aware about High yielding hybrid seeds. If we can make them aware about comparative advantage of their cultivation according to their land and environment and make them aware about marketing we can break the vicious circle of poverty.

Here we must understand hybrids means high yielding crops, locally suitable, and locally available and farmers can maintain sustainable ways of seed preservation.

While choosing hybrids the following measures will be taken into consideration:

1. locally produced hybrids:

Our emphasis is on locally produced hybrids. The locally produced hybrids are easily available in the local market that are developed in Nepal by the Nepali Scientists. Few Examples: the Rampur maize, the Puthani radish, the Kathmandu local Cauliflower. These are all locally produced hybrids and there are many more.

2. Seed preservation:

There are local hybrids of different cereals, vegetables, legumes and fruits of whom the farmers do not have to depend upon market every year. Only in the beginning they have to be provided(they buy) and from the following year they can select the best seeds from their own production and store and preserve for seeds for next cultivation. So its not true that all the hybrids create external dependency for the seeds. For example, the Neplai hybrid rice, maize, wheat, legumes, and many vegetables are its example.

3. Fruit hybrids:

Farmers can themselves produce cross breeds of local breeds and develop new breeds by vegetative cross propagation like grafting. It is purely improvising the local seeds and there is no outer dependency at all.

4. Local agriculture research centers:

There are local agriculture research centre in places like Jumla, Rampur, Kathmandu and in many other places who study the local setting and produce according to indigenous environment. So it is not always true that the hybrids are not according to the local environment for disease, pests and insect resistance.

5. government agriculture line agencies

There are government agriculture line agencies in each district to prescribe what and which hybrid is suitable for the district according to the soil, temperature, and other biotic and abiotic condition.

6. suitable hybrids for the local region

Our project will make a very strong list of all the suitable hybrids for the local region after all relevant observation, study and consultation so that the farmers will benefit without any long term sustainability risk and the biodiversity and indigenous knowledge and ethno-methodology will be always respected.

7. Organic Practice:

The organic fertilizers and ecological pesticides and insecticides are possible to use with local hybrids. It is already in practice and has been successful.

For more reference:

1. District Agriculture Office of Program district(Jumla)
2. Karnali Technical School, Jumla
3. Khumaltar Agriculture research centre, Satdobato, Kathmandu