

Constraints in Vegetable Production-Experiences of Tribal Vegetable Growers

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ABSTRACT

Vegetables make a major portion of human diet. Though the vegetable requirement is 300g/day/person, we are able to meet about 1/9th of the requirement only. A large number of vegetables in India have been introduced. However, a planned development in the field of vegetable production will not only improve the nutritional requirement for masses but can also meet the challenge of adequate food supply to the growing population in India. (Miglani & Kumar, 2004). Vegetable cultivation has become highly commercialized. But still there is a wide gap between current production and potential productivity. To find out various constraints faced by the growers in vegetable production, the study entitled 'Constraints associated with vegetable production- Experiences of tribal vegetable growers' was undertaken. The study was conducted in two villages of Umerkote block in Nabarangpur district of Orissa, covering marginal, small and big farmers (30 from each category totaling 90 numbers) who were involved in vegetable cultivation. The data were collected through pre-tested structured interview schedule and appropriate statistical procedures were employed to analyze the data. Investigation was made relating to constraints associated with vegetable cultivation i.e. social, organizational, technology transfer and economic constraints

Key Words : Constraints; Vegetable production;

Evolved in Africa and then Asia, we ate a huge range of leaves, buds, flower buds, stems, gums, roots, tubers, and even pollens. The number of plant families we used as food was very much greater than the restricted range we eat today. Wild foods were carefully selected to avoid the plants or parts of plants with bitter and unpleasant taste, which likely contained toxic compounds. Today's plants are more palatable, and yet paradoxically, we eat very few plants as part of our daily diet. The major contribution of plants to human health has always been thought to be the large amounts of vitamin A, the folic acid vitamin, and the vitamin C they contained; as well as a good amount of some minerals. It is becoming more and more obvious that there are many plant chemicals that act together to protect the human body from the onset of cancers and heart disease, and that vitamin supplements can be helpful, but are not as useful as the whole plant.

India, with its wide variability of climate and soil, has good potential for growing a wide range of horticultural crops such as fruits, vegetables, potato,

tropical tuber crops and mushrooms, ornamental crops; medicinal and aromatic plants, spices and plantation crops like coconut, cashew nut, cocoa, etc. Since the mid eighties, the Government identified horticulture crops as a means of diversification for making agriculture more profitable through efficient land use, optimum utilization of natural resources and creating skilled employment for rural masses, especially women folk with the past efforts rewarding.

More than 40 kinds of vegetables belonging to different groups, namely, solanaceous, cucurbitaceous, leguminous, cruciferous (cole crops), root crops and leafy vegetables are grown in India in tropical, sub-tropical and temperate regions. Important vegetable crops grown in the country are tomato, onion, brinjal, cabbage, cauliflower, okra and peas. India is next only to China in area and production of vegetables. India contributes about 13 per cent to the world vegetable production and occupies first position in the production of cauliflower, second in onion and third in cabbage in the world. Orissa is one of the states of India where vast potential exists for vegetable production. Orissa

enjoys as much as 10 agro climatic zones with different rainfall and soil texture. It provides enough scope to grow a variety of vegetables in different districts of states. Next to cereals, pulses, oilseeds, vegetable occupy an important position in the economy of Orissa's agriculture. The vegetables are grown throughout the year i.e Kharif, Rabi and summer depending upon rainfall, temperature, market demand, preference of growers and social requirements. The most important aspect of vegetable cultivation is that it absorbs woman labour to a greater extent compared to other crops. It is not out of place to mention that in many cases housewives entirely manage the vegetable production system up to harvesting and marketing. There are number of vegetables namely potato, sweet potato, chilly, brinjal, cabbage, cauliflower, tomato and many spices (Jati, et. al, 1980).

METHODOLOGY

The study was under taken in two vegetable growing villages of Umerkote Block of Nabarangpur district in Orissa. The villages covered under study were "Badkumari and Sankumari". The district, block and villages were selected purposively where random sampling technique was followed to select the respondent. It was decided to draw samples from all categories of farmers i.e, marginal, small and big farmers. The criteria of selection based on the consideration that farmers were growing vegetables constantly and marked them to earn income. In other words, the farmers growing vegetables for commercial purpose were selected. A random technique was followed to select out 30 vegetable growers from each group and from each village. Thus, a total of 90 vegetable growers were finally selected.

RESULTS AND DISCUSSION

The constraints in vegetable production are many and diversified. Again the constraint differs from individual to individual depending upon their social status, family, requirement, family obligation, cultural background and economic position. For analysis of data the constraints were classified into four groups' namely social, organizational, technology transfer and economy. The responses were secured on 4-points scales fitting to the statements as very much (4) much (3) not so much (2) and not at all (1). The results revealed in this case are cited in Table below.

(A) *Social Constraints* : The social problems are location specific and mostly concerned with individuals

residing in a specific social. The score analysis reveal that lack of awareness, co-ordination among farmers, groupism in village, low adoption by neighbors, traditional norms and adverse socio-political system in the villages are the most important constraints which do not permit farmers to accept and adopt new technology in vegetable farming (Arya, et. al, 1984).

Table 1. Social constraints in vegetable production

Social constraints	M.F. M.S	S.F. M.S	B.F M.S	Total M.S
1. Lack of community awareness	2.16	2.10	2.00	2.08
2. Traditional norms of farmers	1.06	1.20	1.20	1.15
3. Adverse socio-political interference	1.20	1.00	1.00	1.06
4. Low-adoption of by neighbours	1.26	1.33	1.33	1.30
5. Lack of co-ordination of farmers	1.66	1.66	1.66	1.66
6. Groupism	1.66	1.46	1.56	1.56

M.F- Marginal Farmers, S.F-Small farmers, B.F-Big Farmers, M.S-Mean Score

(B) *Organizational Constraints* : No other constraints are as important as organizational constraint in making farming of Orissa a profitable enterprise. Focusing attention towards vegetable farming, the following organizational constraints were observed.

Table 2. Organizational constraints in making farming a profitable enterprise

Organizational constraints	M.F. M.S	S.F. M.S	B.F M.S	Total M.S
1. Poor co-ordination and co-operation among grass root level extension worker	1.96	1.96	1.96	1.96
2. Low credibility of extension worker	1.00	1.36	1.16	1.17
3. Lack of timely advice and guidance by extension personnel	2.30	2.33	2.30	2.31
4. Non availability of production inputs timely	1.70	1.70	1.73	1.71
5. Irregular visit of extension worker	2.43	2.70	2.50	2.54
6. Lack of effective supervision	2.66	2.66	2.66	2.66

M.F- Marginal Farmers, S.F-Small farmers, B.F-Big Farmers, M.S-Mean Score

As much as six important constraints were observed in the area under study. Lack of effective

supervision, irregular visit of extension worker, lack of timely technical advice, poor co-ordination among grass root level workers, non availability of production inputs timely and low credibility of Extension worker were identified in order as the constraints in vegetable farming system. However, most of them are related to Government actions that need to be stream lined to make vegetable farming profitable.

(C) *Constraints in technology transfer:* Transfer of technology is another important dimension in our farming activities. It is more so in case of vegetable farming, which are known as cash crops. Table 3 reveals that lack of land consolidation, absence of proper post harvest technology, inadequate training programme, lack of approach to demonstration and non-communication of location specific recommendations for vegetable are the major constraints. The other constraints were low-level of technical know-how, non-exposure to mass media and lack of soil testing facilities.

Table 3. Constraints in technology transfer in farming activities

Technology transfer	M.F. M.S	S.F. M.S	B.F M.S	Total M.S
1. Inadequate training of farmers	3.60	3.33	3.50	3.47
2. Inadequate demonstration of new technology	3.00	3.00	3.00	3.00
3. Inadequate follow-up services	2.56	2.63	2.83	2.67
4. Lack of location specific recommendation	3.00	3.00	2.96	2.98
5. Deficiency in technical know-how	2.03	2.00	1.96	1.99
6. Lack of soil testing facilities	1.20	1.36	1.20	1.25
7. Inadequate availability of mass media sources of information	1.90	2.00	2.00	1.96
8. Lack of land consolidation	4.00	4.00	4.00	4.00
9. Lack of post harvest technology	4.00	4.00	4.00	4.00

M.F- *Marginal Farmers*, S.F-*Small farmers*, B.F-*Big Farmers*, M.S-*Mean Score*

(D) *Economic Constraints:* As much as seven

economic constraints were identified which stand as barrier in increasing production and productivity of vegetables. A look at the table reveals that absence of storage facility is the most important constraint followed by poor economic status of tribal, low risk bearing capacity and high cost of technology. The subsequent factors were poor marketing facilities, poor transportation and non-availability of credit mentioned by the sample under study.

Table 4. Economic Constraints in increasing production and productivity of vegetables

Economic constraints	MF M.S.	SF M.S	BF M.S	Total M.S
1. High cost of Technology	1.20	1.36	1.40	1.32
2. Poor economic condition of farmers	2.00	2.00	2.00	2.00
3. Non-availability of Agril. Credit	1.16	1.16	1.00	1.10
4. Complicated procedure to avail loans	1.00	1.33	1.20	1.17
5. Low risk bearing capacity	1.63	1.53	1.66	1.60
6. Poor transportation	1.06	1.00	1.03	1.03
7. Poor marketing facility	1.06	1.00	1.10	1.02
8. Absence of storage facility	4.00	4.00	4.00	4.00

M.F- *Marginal Farmers*, S.F-*Small farmers*, B.F-*Big Farmers*, M.S-*Mean Score*

CONCLUSION

It is evident from the study that the major constraints like lack of post harvest technologies, absence of storage facilities, inadequate training programme and inadequate demonstration of new technology are faced by the growers. The study has confirmed that lack of proper follow up service, lack of location specific recommendations, lack of community awareness and lack of effective supervision are also contributing to low production. Thus there is a need to organize training programmes, proper demonstration of improved technologies, and introduction of post harvest technologies to encourage the farmers for vegetable production so that the farmers become more economically independent. Moreover it will improve nutritional status of the family. Based on these training needs, farmers, public and private organizations may organize various training cum awareness programmes.

REFERENCES

1. Arya, S.R.S. and Sahah, S.L (1984). New Technology of rainfed Agriculture and identification of constraints on its adoption in mid hills of U.P., *Agril situation in India*. **39** (7):487-496.
2. Jati, P.K. and Patra, P. (1980). Study of the impact of CADA in diffusion of farm innovations in command areas of Orissa, Unpublished M.Sc.(Ag.) Thesis, College of Agriculture, BBSR.