Agriculture Update
Volume **9** | Issue 1 | February, 2014 | 17-20

Research Article

Constraints perceived by Agriculture Officers on sustainable agricultural practices in Uttar Pradesh

■ **NITIN KUMAR PANDEY, R.K. KUSHWAHA AND INDU**

ARTICLE CHRONICLE :
Received :
25.04.2013;
Revised :
09.11.2013;
Accepted :
09.12.2013

SUMMARY : In order to enhance food grain production there has been over exploitation of natural resources and due to which land, water and soil have been subjected to great stress resulting in soil degradation, soil erosion, salinity and alkalinity, sifting cultivation and nutrient losses. Hence, the concept of sustainability has emerged as an alternative for long term sustainable production and economic viability of Indian agriculture. In order to assess a systematic study was undertaken to assess the constraints in acquiring knowledge on sustainable agricultural practices. The study was conducted in Kanpur Nagar district with 50 Agriculture Officers. 90 per cent agriculture officers perceived scarcity of good training institution in the state to train the officials as the most serious constraint and was ranked first. 84 per cent of them felt that non- availability of advance training tools was the second major constraint in acquiring knowledge on sustainable agriculture production in the state. It can be concluded that there is a need to strengthen the existing training institutions with modern training tools and other infrastructures. The higher officials should have a very positive attitude while sending the participants for training. The state govt. should establish new training institutions so that the agriculture officers should update their knowledge on sustainable agriculture at a regular interval so that in turn farmers get recent information for growing their crops.

How to cite this article : Pandey, Nitin Kumar, Kushwaha, R.K. and Indu (2014). Constraints perceived by agriculture officers on sustainable agricultural practices in Uttar Pradesh. *Agric. Update*, **9**(1): 17-20.

KEY WORDS :
Sustainability, Constraints, Agriculture officers, Training

Author for correspondence :
NITIN KUMAR PANDEY
Krishi Vigyan Kendra, TAWANG (ARUNACHAL PRADESH) INDIA
Email: nitin111pandey@gmail.com

See end of the article for authors' affiliations

BACKGROUND AND OBJECTIVES

The most critical task facing Indian agriculture is to feed a rapidly rising population. During the fifties, intensive agriculture was promoted in selected areas in view of the food crisis on variants of this intensive approach has been continued. Intensive Agriculture District Programme (IADP) was launched in selective district in the early sixties and based on the experience gained from it. Intensive Agriculture Area Programme (IAAP) was introduce and fostered during the mid-sixties and the seventies, still despite of the green revolution, the target of self sufficient in food grains remained generally unfulfilled in the face to fast population growth and, hence, a special food grain production (SFGP) was launched during the late eighties. In all these effort, the strategy of growth in food grain production has exhibited certain basic traits. First it was attempted under the most favourable soil, water, climate and other production condition using high yielding variety coupled with assured irrigation and adequate fertilizer availability. The objective was maximum food output so as to achieve self-sufficiency within a short period. The focus on intensive dairying and poultry production came in the seventies and eighties. Milk output has increased significantly but its sustainability is uncertain because adequate attention has not been paid to supportive activities, such as pasture and fodder which would involve adjustment in the cropping system.

In our effort to increase the food grain production, land, water and soil resources have been subjected to greet stress and in appropriate land use has resulted in soil degradation, soil erosion, salinity and alkalinity, shifting

cultivation and nutrient losses. It is estimated that 6,000 million tons of soil containing about 8.4 million tons of plant nutrients are annually lost through erosion. Salt affected and water logged area account for approximately 7mha and 6mha, respectively which means that valuable land with irrigation potential is lost. Degraded soil, ill drained field, shifting cultivation and salinity constitute serious cause of low or declining productivity and raise serious concern regarding sustainable agriculture in the country. Sustainability is an issue of the inter-generational equity involving restoration and conservation of resources. Over exploitation of natural resources for enhancing food grain production under favourable environment has not provided much support to the resource condition for growth and this has obviously resulted in inter regional and inter generational equity problem.

The inexorable and lopsided pace of industrial and urban development has led to a sizeable reduction in fertile land and deterioration in the quality of water. In other words agricultural development experience over the past 40 year exhibit little or only a limited concern for long term sustainability and economic variability of Indian agriculture.

"Sustainable agriculture is that form of farming which produces sufficient food to meet the needs of present generation without eroding the ecological assets and the productivity of the life supporting system in future generation." Sustainability has evolved a lot from its original meaning of "ability to continue". Brundtland Commission concept of sustainability referred to development that meets the needs of the present without compromising the ability of generations to meet their needs (Yadav *et al.*, 2008).

In the present context, it is of utmost importance that the sustainability dimensions of the developed and transferred technologies should be looked into and each new technology needs to be developed for future should satisfy the concept and dimensions of sustainability (Chand and Gosian, 1998).

Further, knowledge is one of the important components of human behaviour. Extension workers are like the nervous system in the process of rural development. There is a great responsibility on the shoulders of agriculture officer (AO's) who are in the field of extension. AO's should have thorough knowledge on sustainable agricultural practices, which preserve and/or enhance the environment. Still there are many constraints which need to be addressed for sustainable agriculture production in the state. A systematic study was undertaken to assess the constraints faced by agricultural officers about sustainable agricultural practices.

RESOURCES AND METHODS

The study was conducted in Kanpur Nagar district of Uttar Pradesh. It is located under the jurisdiction of C.S. Azad University, Kanpur. Directorate of Extension, C.S.A University, Kanpur regularly organizes training programmes to extension personnel. All the Agriculture Officers (AOs) in position from the selected district were taken as the respondents. This way a total of 50 AOs were selected for the present study. A well structured schedule was developed and it was pre tested. The data were collected by adopting personal interview method.

OBSERVATIONS AND ANALYSIS

The results of the present study as well as relevant discussions have been presented under following sub heads:

Socio-economic status:

Socio-economic status plays an important role in sustainable agriculture practices. Therefore, it is felt necessary to study the socio economic status of the selected respondent.

It reveals from Table 1 that majority 68.00 per cent respondents (agriculture officers) were having their education post graduate and 32 per cent graduate. None of the agriculture officers were found up to intermediate and Ph.D.

Table 1 : Distribution of respondents an in the basis of their education (n=50)

Sr. No.	Particulars	No. of respondents	Percentage
1.	Up to intermediate	-	-
2.	Graduate	16	32
3.	Post graduate	34	68
4.	Ph.D	-	-

Thus, it is concluded that majority of the agriculture officers were having post graduate level of education.

Table 2 shows that maximum 52 per cent respondents were found in agricultural background followed by 24.00 and 24.00 per cent were having business and service back ground, respectively.

Table 2 : Distribution of respondents on the basis of their parental occupation (n=50)

Sr. No.	Particulars	No. of respondent	Percentage
1.	Agriculture	26	52
2.	Business	12	24
3.	Services	12	24

Thus, it is clear from the Table 1 that near about 50 per cent respondents belonged to agricultural background and 50 per cent were from business and service sectors.

It is clear from the Table 3 that maximum 44.0 per cent AO,s were having three to six years of job experience remaining 32 and 24 per cent AOs were having more than six years and three years of job experience, respectively.

Table 3 : Distribution of respondents on the basis of their job experience (n=50)

Sr. No.	Particulars	No. of respondent	Percentage
1.	Three years	12	24
2.	Three to six years	22	44
3.	More than six years	16	32

Thus, it is clear from the Table 3 that maximum AOs were having three to six years of job experience.

For the development of the organization well skilled personnel are required. On the basis of their objectives the Table 4 shows that maximum 42 per cent AOs participated in two training, followed by 20.00, 20.00 and 18.00 per cent AOs participated in more than three training one training, three training, respectively organized by states department of agriculture.

Thus, it is clear from the Table 4 that the participation of AOs in training programme organized by state department of agriculture is not satisfactory.

Table 4 : Distribution of respondents on the basis of their participation of extension training (n=50)

Sr. No.	Particulars	No. of respondent	Percentage
1.	One training	10	20
2.	Two training	21	42
3.	Three training	9	18
4.	More than three	10	20

It is apparent from the Table 5 that's the highest majority 64.0 per cent of respondent were not using source of information, while 36.0 per cent AO's were utilizing only one source of informations. Whereas low majority none of the AO's were utilizing more than two sectors.

Table 5 : Distribution of respondents on the basis of their utilization of information source (n=50)

Sr. No.	Particulars	No. of respondents	Percentage
1.	Not use	32	64
2.	Use one	18	36
3.	Use two	-	-

Thus, it could be reported that the majority (64.0 %) of the agriculture officer are not utilizing source of information.

Table 6 reveals maximum 52 per cent of AOs had perceived high work load followed by 42.00 and 6.00 had medium and low perception of work load, respectively.

Thus, it can be concluded that maximum agricultural officers were having stress of work load.

Table 6 : Distribution of the basis of their perception of work load (n=50)

Sr. No.	Particulars	No. of respondents	Percentage
1.	Low perception of work load	3	6
2.	Medium perception of work load	21	42
3.	High perception of work load	26	52

Table 7 shows that 52 per cent AOs were satisfied with their job. This was followed by 42.00 and 6.00 per cent medium satisfied and low satisfied with their job, respectively.

Table 7 : Distribution of respondents on the basis of their job satisfaction (n=50)

Sr. No.	Particulars	No. of respondents	Percentage
1.	Low satisfaction	3	6
2.	Medium satisfaction	21	42
3.	High satisfaction	26	50

Thus, it is concluded that near about 50 per cent AOs were feeling medium and low level of satisfaction.

It is apparent from the Table 8 that 48 per cent respondents were having good level of aspiration. This was followed 46 per cent and 6 respondents belonged to fair and poor of analysis of aspiration, respectively.

Table 8 : Distribution of respondents on the basis of their level of aspiration (n=50)

Sr. No.	Particulars	No. of respondents	Percentage
1.	Poor level	3	6
2.	Fair level	23	46
3.	Good level	24	48

The above analysis indicate that the level of aspiration of agriculture officer is good.

From the Table 9 it was observed that variable *viz.*, education, occupation, job experience, service training receive, perception of work load, job satisfaction and level of aspiration had correlated positively and significant towards knowledge level of agriculture officer.

Thus, it is clear from the Table 9 that socio-psycho variables and knowledge of agriculture officers had positive relationship.

Table 9 : Relationship between socio-psycho variables score and agricultural sustainable practices

Sr. No.	Socio-psycho variables	'r' Value	't' value
1.	Education	0.00737	34.9310
2.	Occupation	0.01088	35.3649
3.	Job experience	0.12529	35.0286
4.	Service training receive	-0.13327	34.3689
5.	Information source use	0.27911	36.1742
6.	Perception of work load	-0.06377	36.8892
7.	Job satisfaction	-0.01013	34.6852
8.	Level of aspiration	0.17069	34.7458

Significant at 5%, D.F. 98

Table 10: Constraints perceived for poor knowledge of the officials

Sr. No.	Constraints	Frequency	Per cent	Rank
1.	Most of the officers are not willing to participate in training due to age factor	28	56	VII
2.	Higher officers are not permitting to participate in trainings due to age factor	34	68	VI
3.	Lower qualification	20	40	VIII
4.	Insufficient funds for training in department of agriculture	35	70	V
5.	Agriculture officers are not interested to participate	40	80	III
6.	Lack of good training institutions	45	90	I
7.	The method of training are traditional	38	76	IV
8.	Non-availability of advance training tools	42	84	II

It is evident from the Table 10 that 90 per cent agriculture officers perceived scarcity of good training institution in the state to train the officials as the most serious constraint and was ranked first. 84 per cent of them felt that non-availability of advance training tools was the second major constraint in acquiring knowledge on sustainable agriculture production in the state. The other major constraint perceived by the agriculture officers were; agriculture officers were not interested to participate (80%), the method of training are traditional (76%), insufficient fund under department of agriculture (70%), Higher officers are not permitting to participate in trainings due to age factor (68%), Most of the officers are not willing to participate in training due to age factor (56%), Lower qualification (40%) and were ranked III, IV, V, VI, VII and VIII, respectively. It is also revealed from the above findings that the most of the agriculture officer either not willing to participate in such training programmes due to age factors and lower qualifications or their higher officials are not recommending them for such training programmes Though sustainable agriculture is not a new concept particularly in Indian context hence, age and education of the agriculture officers may not be an obstacle in acquiring knowledge. Hence, they should be motivated to participate in such training programmes in future. Some incentive should be given to the participants of the training programmes. Age and education should not be made the criteria for sending and selecting the trainees.

Conclusion:

Thus, it can be concluded that there is a need to strengthen the existing training institutions with modern training tools and other infrastructures. The higher officials should have a very positive attitude while sending the participants for training. The state govt. should establish new training institutions so that the agriculture officers should update their knowledge on sustainable agriculture at a regular interval so that in turn farmers get recent information for growing their crops.

Authors' affiliations :

R. K. KUSHWAHA, C.S. Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA

INDU, Krishi Vigyan Kendra, TAWANG (ARUNACHAL PRADESH) INDIA

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