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## A study on various extension methods used and promotional activities carried out by stakeholders for popularization of STRVs

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### Abstract

The study was conducted purposively in the state of Odisha with a view to document the various extension methods used and promotional activities carried out by stakeholders for popularization of STRVs (Stress Tolerant Rice Varieties). The sample size covered 210 respondents from 3 districts & response was obtained from each individual respondent with the help of a structured interview schedule pretested with 10 percent samples other than the respondents of the study. The findings of the study revealed that regarding providing required information about the STRVs, stakeholders like IRRI (68.57%) followed by NGOs (68.09%) and Line Departments (52.38%) were mostly visible in the sample areas. It was also observed that the same stakeholders i.e., IRRI (67.14%), NGOs (66.67%) and line departments (50.47%) motivated the sample respondents for interest creation. IRRI (40.47%) was the leading stakeholder which helped the farmers for evaluation of the technology. Not much encouraging trend was found for small scale trial of technology and supply of critical inputs by the stakeholders among the STRVs growers. It was also observed that the in the capacity building of the farmers, NGOs (45.71%) were leading among the stakeholders. shows that among the extension methods used by various stakeholders involved in promotion of STRVs, in case of individual contact methods majority (64.28%) of the STRVs growers were found to be benefitted by farm and home visits followed by adaptive or minikit trials (41.42%) In case of group contact methods majority (62.38%) of the STRVs growers were found to be benefitted by awareness campaigns followed by lecture method (56.19%). It was also evident from the above table that in case of mass contact methods majority (75.71%) of the STRVs growers were found to be benefitted from electronic medias.

**Keywords:** STRVs, stakeholders, extension methods, minikit trials, capacity building, popularization

### Introduction

International Rice Research Institute has been working in the state of Odisha since 2016-17, with the support of DAFE, to fulfill the mandate of achieving high and sustained system productivity with climate resilience, better income, risk reduction and equitable distribution of the gains from productivity growth among small and marginal famers, especially women. Bina dhan 11, CR 1009 sub 1 and Swarna sub 1 are some of the stress tolerant rice varieties developed by IRRI and have distinct advantage of withstanding the stress conditions such as flood and drought over other varieties. Stress-tolerant rice varieties (STRVs) help farmers to mitigate the risk of abiotic stresses and assure a good harvest, hold immense potential.

Agricultural production especially among small farmers has been severely curtailed by a number of factors. Key among them being insufficient agricultural information dissemination to the men and women smalholder farmers. A well-developed agricultural innovation is perceived not useful when the adoption rate is poor. An agricultural technology is not useful if it is not adopted.

Knowledge and information are vital for people to respond successfully to the opportunities and challenges of social, economic and technological changes even those that help to improve agricultural productivity and rural livelihood knowledge. Information should therefore be effectively disseminated so that it becomes useful to people (Ajayi and Gunn, 2009) <sup>[1]</sup>. Various organizations including governmental and non-governmental are involved in distributing the new improved varieties of rice all over the country through different extension approaches. Keeping this in view, the following study “A study on various extension methods used and promotional activities carried out by stakeholders for popularization of STRVs” was undertaken to list out the prominent extension methods used by various stakeholders in promotion of STRVs.

## Methodology

In this study, Ex-post-facto research design was used. This design is appropriate because the phenomenon has already occurred. The present study was conducted in three districts namely Puri, Kalahandi and Bhadrak randomly selected for the study. The districts contribute major share to the rice production of Odisha and are affected by various stresses frequently. The blocks, gram panchayats and villages were selected randomly and from 12 villages 210 respondents were selected through proportionate random sampling method. The study was conducted in Nimapada and Pipli blocks of Puri district, Kalampur and Bhawanipatna blocks of Kalahandi district and Bhandaripokhari and Dhamnagar blocks of Bhadrak district of Odisha. The primary data were collected through personal interview method with the help of pre-tested interview schedule, which was prepared on the basis of objectives of investigation and variables. The interview schedule was thoroughly discussed with the member of the advisory committee and their suggestions were incorporated. The statistical tests and procedures were used for analyzing

the data with the help of statistical tools like frequency and percentage were used for the analysis of data.

## Results and Discussion

### 1. Promotional activities of stakeholders for popularization of STRVs

The researcher found that various stakeholders were involved for popularizing the STRVs in the sample area. Some of the stakeholders were from national origin whereas some are from the state and local origin. The researcher tried to categorize the promotional activities undertaken by various stakeholders for popularizing STRVs into the following categories-

- Providing required information on STRVs
- Arousing interest
- Helping for evaluation of technology
- Helping for small scale trials
- Provision of critical inputs
- Capacity building

**Table 1:** Promotional activities of stakeholders for popularization of STRVs

Sl. No	Stakeholders	In Providing required information		In Arousing Interest About the technology		In Helping farmers to evaluate the technology		In Helping farmers for small scale trials		In Providing critical inputs for adoption		In building capacity of the farmers	
		F	%	F	%	f	%	f	%	f	%	f	%
		1	IRRI	144	68.57	141	67.14	85	40.47	55	26.19	35	16.67
2	NRRI	10	4.76	6	2.85	0	0	0	0	0	0	0	0
3	NGOs	143	68.09	140	66.67	79	37.61	54	25.71	35	16.67	96	45.71
4	Line Departments	110	52.38	106	50.47	36	17.14	32	15.23	27	12.85	72	33.33
5	KVKs	34	16.19	34	16.19	9	4.28	8	3.81	9	4.28	15	7.14
6	Input Dealers	90	42.85	78	37.14	0	0	0	0	0	0	0	0

(n=210)

It was evident from the above table that regarding providing required information about the STRVs, it was observed that stakeholders like IRRI (68.57%) followed by NGOs namely Netaji Subhas, Wisdom, Loksebak, etc. (68.09%) and Line Departments (52.38%) were mostly visible in the sample areas. It was also observed that the same stakeholders i.e., IRRI (67.14%), NGOs (66.67%) and line departments (50.47%) motivated the sample respondents for interest creation. IRRI (40.47%) was the leading stakeholder which helped the farmers for evaluation of the technology followed by NGOs (37.61%) and line departments (17.14%).

Not much encouraging trend was found for small scale trial of technology and supply of critical inputs by the stakeholders among the STRVs growers. In helping farmers for small scale trials IRRI (26.67%) was the leading stakeholder followed by NGOs (25.71%) and line departments (15.23%). It was observed that both IRRI and NGOs with 16.67 per cent were the leading stakeholders in providing critical inputs for adoption of technology followed by line departments (12.85%). It was also observed that the in the capacity building of the farmers NGOs (45.71%) were leading among the stakeholders followed by IRRI (45.23%) and line departments (33.33%).

IRRI, NGOs and line departments were mainly engaged in popularization of STRVs in the sample area. However, the promotional activities of NRRI, KVKs and Input dealers were having negligible role among the stakeholders involved in promotion of STRVs.

### 2. Extension methods used by stakeholders in promotion of STRVs

Extension methods are the tools & techniques used to create situations in which communication can take place between the farmers & the extension professionals. Extension methods provide stimulation that causes the desired mental and / or physical action on the part of learner. In brief, it helps the extension workers to take the farmers through one or more steps of the teaching-learning process, viz.; attention, interest, desire, conviction, action and satisfaction. The extension methods were classified into three broad categories on the basis of their use/ nature and number of contact as:

- Individual contact methods
- Group contact methods
- Mass contact methods

An attempt was made by the researcher to document the various extension methods used by stakeholders involved in the promotion of STRVs. The STRVs growers were asked about the extension methods used by stakeholders which helped them in one or more steps of the teaching-learning process, viz.; attention, interest, desire, conviction, action and satisfaction. The STRVs growers responded on the extension methods by which they were benefitted and their responses are presented in the table below:

**Table 2:** STRVs growers benefitted by the extension methods used by various stakeholders in promotion of STRVs

Extension Methods		Frequency	Percentage
(n=210)			
<b>A. Individual contact methods</b>			
1. Farm and home visits		135	64.28
2. Farmer's call		81	38.57
3. Adaptive trials or minikit trial		87	41.42
4. Telephone calls		84	40
5. Personal letters		NIL	0
6. Flag method		NIL	0
7. Farm clinics		5	2.38
<b>B. Group Contact Methods</b>			
1. Demonstrations		113	53.80
2. Field trainings		100	47.61
3. Study visits and tours		59	28.09
4. Awareness campaign		131	62.38
5. Lecture methods		118	56.19
6. Field Days		107	50.95
7. FLD		18	8.57
8. OFT		3	1.42
9. Crop Cafeteria		17	8.09
10. Head-to-Head		34	16.19
11. Cluster Demonstration		91	43.33
<b>C. Mass contact methods</b>			
1. Printed medias (farm publications, newspaper, posters)		143	68.09
2. Electronic medias (T.V, radio.)		159	75.71
3. ICT (social media, portals, Apps)		95	45.23

The perusal of table no. 2 shows that among the extension methods used by various stakeholders involved in promotion of STRVs, in case of individual contact methods majority (64.28%) of the STRVs growers were found to be benefitted by farm and home visits followed by adaptive or minikit trials (41.42%), telephone calls (40%) and farmer's call (38.57%). It was also found that only 2.38 per cent of the STRVs growers benefitted from farm clinics.

In case of group contact methods majority (62.38%) of the STRVs growers were found to be benefitted by awareness campaigns followed by lecture method (56.19%), demonstrations (53.80%), field days (50.95%), field trainings (47.61%), cluster demonstration (43.33%) and study and visit tours (28.09%). It was also found that comparatively less proportion (16.19%) of STRVs growers were benefitted from head-to-head trials followed by FLD (8.57%), crop cafeteria (8.09%) and OFT (1.42%).

It was also evident from the above table that in case of mass contact methods majority (75.71%) of the STRVs growers were found to be benefitted from electronic medias followed by printed medias (68.09%) and ICT (45.23%) respectively.

### Conclusion

The study indicated that in providing required information about the STRVs, stakeholders like IRRI, NGOs and Line Departments were mostly visible in the sample areas. It was also observed that the same stakeholders also motivated the sample respondents for interest creation. IRRI was the leading stakeholder which helped the farmers for evaluation of the technology. Not much encouraging trend was found for small scale trial of technology and supply of critical inputs by the stakeholders among the STRVs growers. It was also observed that the in the capacity building of the farmers NGOs were leading among the stakeholders. The promotional activities of NRRI, KVKs and Input dealers were having negligible role among the stakeholders involved in promotion of STRVs. In case of individual contact methods majority (64.28%) of the

STRVs growers were found to be benefitted by farm and home visits. In case of group contact methods majority (62.38%) of the STRVs growers were found to be benefitted by awareness campaigns and in case of mass contact methods majority (75.71%) of the STRVs growers were found to be benefitted from electronic medias. It is therefore recommended to lay emphasis on the extension methods mostly preferred by the farmers. This will be helpful in providing the correct and updated information to the farmers with accuracy and authenticity.

### Conflicts of Interest

The authors declare that they have no conflicts of interest.

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