



E-Governance of skill training programme under Garib Kalyan Rojgar Abhiyaan

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ABSTRACT

Garib Kalyan Rojgar Abhiyaan (GKRA) initiative was announced by the government of India in June 2020 for a period of 125 days to create livelihood opportunities for the returned migrants in their states and to sustain rural development. GKRA was convergent effort between 12 different ministries/departments covering 25 activities over 116 districts of 6 states. As different stakeholders were involved, therefore for effective monitoring and data exchange an IT platform was created at central level (<https://gkra.nic.in>) where all departments exchanged data for consecutive 15 weeks. Indian Council of Agricultural Research (ICAR) organized skill development training programmes for livelihood through Krishi Vigyan Kendra (KVK). E-Governance of these training programmes and exchange of data to central GKRA portal was managed through a module developed during July-October 2020 under KVK Knowledge Network Portal (<https://kvk.icar.gov.in>) at ICAR-Indian Agricultural Statistics Research Institute and hosted at ICAR Data Centre, ICAR-IASRI, New Delhi. The emphasis of the training programmes was on the areas of integrated farming to support livelihood. Overall, the participants were satisfied with the quality of training programmes conducted by KVKs. KVKs also supported participants in handholding of technology and setting up their own venture. IT platforms provided efficient storing and retrieval of data, framework for exchange of information and enhanced visibility in the initiative.

Keywords: GKRA, KVK, Migrant labour, Skill Training

Nationwide lockdown enforced due to Covid-19 pandemic during March-April, 2020 affected the general workforce and the migrant workers were among the hardest hit. While they make up majority of the workforce needed to foster economic development and social progress, with the closing of factories and workplaces, unfortunately they were forced to face every hardship from food shortage to unemployment. States, viz. Uttar Pradesh, Bihar, Jharkhand, Odisha, Rajasthan and Madhya Pradesh contribute major percentages of the total inter-state migrants. Government of India provided the transport facilities for the safe return of migrant workers to their home states. The government had come up with a new initiative called Garib Kalyan Rojgar Abhiyaan (GKRA), which was aimed at making migrant workers independent so that they can create their own livelihood opportunities. Twenty-five different income

generation activities had been taken up to enhance long term livelihood opportunities of migrant workers within a span of 125 days. The programme covered 116 districts of the 6 states. It mainly envisioned conducting the activities which were to be monitored by 12 participating ministries/departments (Press Information Bureau 2020). National Informatics Centre under the guidance of Ministry of Panchayati Raj and Ministry of Rural development developed a Portal (<https://gkra.nic.in>) for e-governance of all the 25 activities under GKRA by all participating ministries/departments. Functionality was provided to different ministries/departments to upload the weekly data for their respective activities on this portal (Ministry of Rural Development 2020). Under GKRA, conducting skill development training of migrant workers, their reporting and monitoring through district level KVKs in agriculture and allied fields was an activity taken up by the Department of Agriculture, Research and Education (DARE). KVK Portal (ICAR-IASRI 2016) which connects all KVKs of India over an electronic platform used for monitoring and governance of this activity. Training areas were selected in such a way so that migrant workers can start-up agricultural business in a village setup with less investment and minimum resources. The expected action for this activity was to conduct trainings through KVKs and enlist the sponsored

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beneficiaries with support of Agriculture Departments and State Rural Livelihood Missions.

MATERIALS AND METHODS

Training programs were planned during 2020 to strengthen migrant workers in different skill areas like Bee Keeping, Poultry and Sheep rearing, Goat Farming, Azolla Production, Vermicomposting, Mushroom, Bamboo and Cane Crafts, and Paper Plate Making etc. 116 districts from 6 states, viz. Bihar, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh were selected for conducting these trainings. Training areas in each state were selected based on the natural resources available there. The responsibility of the training programmes was given to the Krishi Vigyan Kendras (KVKs) at the district level. KVKs used to work for improving the agricultural economy of the district by faster technology dissemination to farmers through distribution of seeds, trainings, mela and several other front line demonstration activities. In each of these training programmes, there were 35 participants who have been trained on a particular technology. Number of trainings to be conducted was fixed for each district. The KVK Knowledge Network or KVK Portal, which connects all the KVKs in India for effective knowledge dissemination among the farmers since July 2016, digital platform has been used for keeping a record on the number of trainings conducted and personnel skilled by KVKs in each aspirational district selected for GKRA. A separate module of the portal was developed at ICAR-IASRI during July-October 2020 for uploading the information. Along with training details, personal details (name, gender, mobile number) of each migrant labourer who attended the training programme and their respective skill training areas were also stored in the database. Web forms were designed for KVKs to fill in training and participant related information. Web pages were created following a 3-tier architecture where ASP.NET was used for writing the business logic along with HTML, CSS and JavaScript for designing and client side validation of information (Arora *et al.* 2017, Pal *et al.* 2020). SQL Server was used for implementing the database layer. Master data on trainings were mapped with KVKs and the forms were made accessible to KVKs of 116 aspirational districts targeted for this programme. KVKs uploaded training related information like skill training area, training date and details of migrant participants etc. Excel file upload facility was also provided so that KVKs could fill the details of participants and upload the same in the portal. Given the number of trainings conducted, the system automatically calculated and populated the expenditure incurred in conducting the training as well as total expenditure. Functionality to export state wise data as well as individual district wise data in excel format was also provided in the portal. This functionality was built to facilitate cumulative weekly data upload on the national level GKRA Portal (URL: <http://gkra.nic.in/>). Data was uploaded from KVK Portal to GKRA portal consecutively for 15 weeks.

After successful completion of the training, KVKs and migrant labourers were asked to report their feedback about the training programmes. Online questionnaires were prepared to be filled in by the participant migrant labourers and KVKs responsible for the arrangement of these training programs. KVKs were asked about their perception of the level of satisfaction of migrant labourers and adoption of technologies, percentage of trainees who have contacted the KVKs again for handholding to establish business. Migrant labourers gave their feedback (with the support of KVKs) on the quality of the training programmes conducted, level of satisfaction over use of audio visual aids, infrastructures used, quality and usefulness of the study material etc. They have also expressed their opinion on whether the training programs helped them to establish their own businesses. Response on level of satisfaction was collected in an ordinal scale of highly satisfied, satisfied, average, not satisfied and highly unsatisfied. Similarly, technology adoption percentages were also considered within a limited scale such as <20%, 20–40%, 40–60%, 60–80%, >80%. Such responses were converted into an integer value between 1–5 to test whether there was any statistically significant relation between migrant labourers' overall satisfaction and adoption of technologies. Spearman's correlation coefficient test was computed as;

$$\rho = \frac{\sum(x_i - \mu_x)(y_i - \mu_y)}{\sqrt{\sum(x_i - \mu_x)^2 \sum(y_i - \mu_y)^2}}$$

where x_i and y_i are the transformed values of level of satisfaction and technology adoption; μ_x and μ_y are the mean values of x_i and y_i . The value of ρ ranges between -1 to +1, denoting no association (for $\rho = -1$) to highest level of association (for $\rho = 1$). The null hypothesis, H_0 : there is no correlation between the two variables; was tested against the alternative hypothesis, H_1 : variables are correlated; using the Spearman's rank correlation test statistic.

RESULTS AND DISCUSSION

Under GKRA initiative, KVKs organised training programs for skill enhancement of migrant labourers. A total of 1915 skill trainings had been conducted in 116 districts, strengthening a workforce of 67860 migrant labourers in 52 different skill training areas. The number of migrant labourers trained exhibited an increasing trend over the weeks, starting with 10,000 trainees in week 1 and reaching up to more than 65,000 (cumulative) by the end of 15th week. Top ten skill training areas had been identified as Integrated Farming System, Goat Farming, Mushroom Production, Skill Training, Vermi-compost, Poultry Farming, Bee Keeping, Vegetable production, Nursery Management and Nursery Raising. The 73% training programs were organised in the above mentioned skill training areas by the KVKs in order to make migrant labourers self-reliant with minimum investments. As per the data uploaded in KVK Portal, 24% of total trainings were solely on Integrated farming system followed by goat farming (10.5%) and mushroom production (7%). Training

Key Parameters >>		Training Conducted(In No.)		Person Skilled(In No.)		Total Expenditure(In Rs. Crore)	
SL. No	State Name	Target	Achievement	Target	Achievement	Target	Achievement
	Total	1856	1915	64960	67860	3.8048	3.979550
1	BIHAR	512	496	17920	17871	1.0496	1.044750
2	JHARKHAND	48	46	1680	1610	0.0984	0.094700
3	ODISHA	64	64	2240	2240	0.1312	0.131650
4	MADHYA PRADESH	384	384	13440	13474	0.7872	0.792200
5	RAJASTHAN	352	357	12320	12543	0.7216	0.736300
6	UTTAR PRADESH	496	568	17360	20122	1.0168	1.179950
	Total	1856	1915	64960	67860	3.8048	3.979550

(A)

Key Parameters >>		Training Conducted(In No.)		Person Skilled(In No.)		Total Expenditure(In Rs. Crore)	
SL. No	District Name	Target	Achievement	Target	Achievement	Target	Achievement
	Total	384	384	13440	13474	0.7872	0.792200
1	ALIRAJIPUR	16	16	560	560	0.0328	0.032850
2	BALAGHAT	16	16	560	560	0.0328	0.032850
3	BARWANI	16	16	560	560	0.0328	0.032900
4	BETUL	16	16	560	560	0.0328	0.032900
5	BHIND	16	16	560	560	0.0328	0.032900
6	CHHATARPUR	16	16	560	560	0.0328	0.032850
7	CHHINDWARA	16	16	560	560	0.0328	0.032850
8	DHAR	16	16	560	567	0.0328	0.033250

(B)

Fig 1 (A) State wise and (B) District wise GKRA Report on number of trainings conducted, persons skilled and total expenditure incurred.

programmes were specifically designed for different areas based on the availability of natural resources and demand for different enterprises. Among the six participating states, UP, Bihar, MP and Rajasthan respectively contributed the major percentage of total trainings conducted. The three Key Performance Indicators (KPIs), viz. number of trainings conducted, number of persons skilled and total expenditure were used to evaluate the progress of work under GKRA. Results showed that KVKs have achieved around 100% target in organizing as well as reporting of

and overall satisfaction on the training programme (Table 1). Migrant labourers expressed their satisfaction over the different skill training areas that were conducted in each state. Fig 2 depicts the comparative graphical representation of responses of trainees from Bihar and Madhya Pradesh, similar analysis have been carried out in the other four states as well. Majority of the trainees have expressed their satisfaction level as excellent or very good over the different skill training areas. Training areas such as goat farming and integrated farming system has been well received in

Table 1 Responses of migrant workers on various parameters of the training programs

Question Description	Response				
	Excellent	Very Good	Good	Average	Poor
Course Content	627	544	146	7	0
Infrastructure used for training	331	690	280	22	1
Quality and usefulness of study materials	343	701	263	16	1
Food arrangement in the training program	442	606	260	15	1
Use of audio/visual aids	239	569	427	73	16
Behaviour of trainers	601	529	189	5	0
Usefulness of training program	262	684	343	32	3
Level of overall satisfaction	308	695	301	20	0

Out of all the migrant labourers who have responded, 695 (52%) of them found it very good, 308 and 301 (approximately 23%) found it excellent and good respectively, 20 (2%) of them found it average.

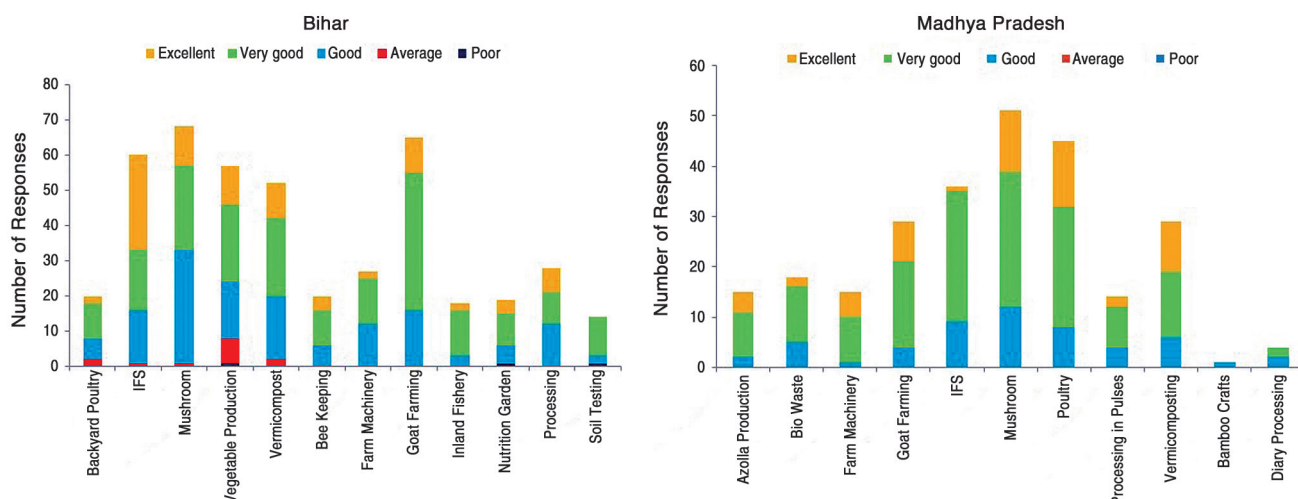


Fig 2 Level of satisfaction of migrant workers over different skill training areas conducted in Bihar and Madhya Pradesh.

Table 2 Distribution of number of KVKs on various aspects of the training program

Question asked in feedback proforma	Percentage of migrant labourers				
	< 20%	20–40%	40–60%	60–80%	80–100%
	Number of KVK				
Adoption of technologies included in the training program in terms of usage	14	22	28	31	4
Trainees who have contacted the KVKs for handholding to enterprise launching on the areas covered in the training program	28	30	28	11	2

Bihar. On the other hand, mushroom cultivation and poultry rearing was well received in Madhya Pradesh.

KVKs were also asked to rate their satisfaction over timely showcasing of training data in the GKRA dashboard along with adoption of technologies and further handholding with migrant labourers for enterprise launching on the areas covered in the training program. A total of 99 KVKs from 96 districts sent their feedbacks through the portal. Of them 97% of the KVKs responded positively towards arranging similar training programs as part of their regular activity in future and expressed satisfaction towards visibility of their work at the national platform. Out of 99, 59 KVKs responded that 40–80% participants adopted the technologies taught in the program. Moreover, 58 KVKs responded that 20–60% participants contacted them for handholding to setting up their own venture in the area covered in the training programme (Table 2).

Spearman’s rank correlation test statistic was computed on the response data from KVKs using the R software. The ρ value came out to be 0.200 with p-value 0.046. As the p-value was less than 0.05, with 95% confidence probability null hypothesis of no correlation between the two variables was rejected and the test was statistically significant. However, as the ρ value was quite far from +1, it was concluded that level of satisfaction was not the sole determinant factor of technology adoption. However, as there exists some degree of positive correlation between level of satisfaction and technology adoption, chances are

high that migrant labourers who were satisfied with the quality of training would adopt the technology in which they were trained.

Garib Kalyan Rojgar Abhiyaan (GKRA) was an important and timely activity planned by Government of India to address the skill enhancement and livelihood opportunities for migrant labourer returned to their villages during Covid-19 pandemic. As there were many stakeholders, therefore a central IT platform (<http://gkra.nic.in>) was created to aggregate the data from stakeholders. In the similar line, ICAR also taken up e-governance of training/skill enhancement activity assigned to KVK through KVK Knowledge Network portal. Many training programs were conducted in different districts as per demand and resource availability for skill development to augment integrated farming. KVKs mentioned that a good number of migrant labourers approached them again for handholding and starting their new ventures. Overall program was beneficial for migrant labourer and e-governance of the activity helped the government to manage and monitor the effect of the same in an efficient manner.

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