

ಕರ್ನಾಟಕ ಸರ್ಕಾರ
ಕೃಷಿ ಇಲಾಖೆ

ಸಂ:ಉಕೃನಿ/ಕೃಭಾ/KEA/ವರದಿ/2021-22

ಕೃಷಿ ಆಯುಕ್ತಾಲಯ
ಶೇಷಾದ್ರಿ ರಸ್ತೆ, ಬೆಂಗಳೂರು-01
ದಿನಾಂಕ:19.11.2021.

ರವರಿಗೆ:

ಸರ್ಕಾರದ ಅಪರ ಮುಖ್ಯ ಕಾರ್ಯದರ್ಶಿಗಳು
ಯೋಜನೆ, ಕಾರ್ಯಕ್ರಮ ಸಂಯೋಜನೆ ಮತ್ತು ಸಾಂಖ್ಯಿಕ ಇಲಾಖೆ,
ಬಹುಮಹಡಿಗಳ ಕಟ್ಟಡ,
ಬೆಂಗಳೂರು-1.

ಮಾನ್ಯರೇ,

ವಿಷಯ: 2014-15 ರಿಂದ 2016-17ರ ವರೆಗಿನ ಕೃಷಿ ಭಾಗ್ಯ ಯೋಜನೆಯ
ಮೌಲ್ಯಮಾಪನ ಅಧ್ಯಯನಗಳ ಶಿಫಾರಸ್ಸುಗಳ ಮೇಲೆ ಕ್ರಮ ಕೈಗೊಂಡ
ವರದಿ ಸಲ್ಲಿಸುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1.ಸರ್ಕಾರದ ಪತ್ರ ಸಂಖ್ಯೆ:AGRI-ML/133/2021
ದಿನಾಂಕ:25.08.2021

2.ಈ ಕಛೇರಿ ಪತ್ರ ಸಂ:ಉಕೃನಿ/ಕೃಷಿಭಾಗ್ಯ/KEA/ಮೌ.ವರದಿ/2021
ದಿನಾಂಕ:24.03.2021

3.ಸರ್ಕಾರದ ಪತ್ರ ಸಂಖ್ಯೆ:AGRI-ML/99/2021.ದಿನಾಂಕ:20.03.2021

4.ಈ ಕಛೇರಿ ಪತ್ರ ಸಂ:ಉಕೃನಿ/ಕೃಷಿಭಾಗ್ಯ/NABCONS/FR/2018-19
ದಿನಾಂಕ:20.03.2019.

ಮೇಲ್ಕಂಡ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಿತ ಪತ್ರಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, 2014-15 ರಿಂದ 2016-17ನೇ ಸಾಲಿಗೆ
ಕೃಷಿಭಾಗ್ಯ ಯೋಜನೆಯ ಅನುಷ್ಠಾನ ಕುರಿತಂತೆ, ಬಾಹ್ಯ ಮೌಲ್ಯಮಾಪನ ಕಾರ್ಯ ನಿರ್ವಹಿಸಿರುವ ಕುರಿತು
NABCONS (NABARD Consultancy Services) ಸಂಸ್ಥೆಯವರು ಸಲ್ಲಿಸಿರುವ ಅಂತಿಮ ವರದಿಯ
ಶಿಫಾರಸ್ಸುಗಳ ಸಲಹೆಗಳನ್ನು ANNEXURE-1 ರಲ್ಲಿ ಲಗತ್ತಿಸಿ ತಮ್ಮ ಸದವಗಾಹನಿಗೆ ಸಲ್ಲಿಸಲಾಗಿದೆ.

ತಮ್ಮ ನಂಬುಗೆಯ

ಕೃಷಿ ಆಯುಕ್ತರು 25/11/21

ಕರ್ನಾಟಕ ಮೌಲ್ಯಮಾಪನ ಇಲಾಖೆ

ಸ್ವೀಕೃತಿ ಸಂಖ್ಯೆ 801/13

ದಿನಾಂಕ 29/11/2021

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ANNEXURE-1

Policy inputs and Recommendations

Suggestions/Policy inputs for overall improvement of the scheme.

Sl. No.	KEA observations on NABCONS	Suggestions or recommendation by NABCONS to DoA	Reply of Department
i.	Suggest for a policy change that the farmers without borewells to be identified as beneficiaries under the scheme.	1 i. The change in the cropping pattern after Farm Pond construction has enabled the farmers to get better returns. It is, however, observed from the field study that a large number of farmers continue to raise the same crop and only a few farmers have adopted change of cropping pattern like cultivation of Tomato and Red Chilli in place of existing crops viz., Ragi and Pulses. Such farmers could substantially increase their income and in respect of Red Chilli it was noticed that the income has actually doubled. Success Stories of farmers who have obtained higher income due to change in cropping pattern have also been furnished in the Report. Further, the various crops introduced by the farmers after construction of farm Pond is furnished in Table 47. Hence, in places where it is suitable, farmers may be encouraged to go for short duration vegetable crops. The Department may suggest suitable changes in cropping pattern taking into account the agro-climatic conditions and use of water efficient devices viz., Drip/Sprinkler, rain fall situation in specific areas and availability of marketing/processing facilities for the crops being suggested. The change in crops grown observed during the Field Study have been captured in the respective District profile.	Farmers who have constructed farm ponds have been suggested to change in cropping pattern from traditional crops to high value vegetable crops and dry land horticulture crops. Further, the various crops cultivated by the farmers after construction of farm pond is furnished in Table 47 annexed to this. Awareness with regards to the suitable and recommended crops as per the agroclimatic conditions is already suggested to farmers in association with Krishi Vignana Kendras and Agricultural Universities. However, the farmers have utilized the stored water of the farm pond for critical irrigation using diesel engines with drip/sprinkler which enable them to get high productivity.
ii.	Recommendations to include type of crops to be grown with high returns and less water consumption and focus on marketing.	2 ii. Keeping in view the objective of supporting after Farm Ponds as a coping mechanism to provide critical irrigation in rainfed areas, priority may be given to the farmers who are primarily dependent on Rainfall for crop cultivation. Karnataka has been frequently facing drought and drought like situations and it was observed during the period of study, the ground water levels are depleting faster. Further, availability of power during the day time was very limited and farmers who have borewells were not able to irrigate their crops during the day time. In order to deal with these challenges, Farm Ponds have been provided by the Department to such farmers also. It is observed in the field that farmers having borewells who were supported for establishment of Farm Ponds have been able to increase net cultivated area. Further, some of them could change their cropping pattern from field crops to more remunerative crops viz., Tomato, Chillies, Papaya, Brinjal, etc. However, in order to restrict coverage of such farmers on a large scale, eligibility may be confined to those farmers whose borewells have failed and in respect of those who have scope for bringing additional area under cultivation with the construction of farm ponds.	Eligibility criteria is open for all the farmers as per State Government norms. However, the preference was given for the needy farmers based on the application seniority. Further farm ponds are also being constructed in MNREGA for all needy farmers.

	Recommendations should be specific evidence based and related objectives.	iii. The primary objective of the Farm Pond is to harvest the rainwater so as to provide Supplementary irrigation for the crops taken up for cultivation and increase the average productivity of crops. The Department has provided polythene sheets to arrest percolation of collected rain water and to use it for providing critical irrigation . Therefore, the scope of the study has been confined to assess the impact of the farm ponds on the increase in the yields , change in cropping pattern, area brought under supportive irrigation etc., instead of possible impact on the ground water levels. It was generally observed that some of the farmers have taken up dry land horticulture viz., Mango, Pomegranate, Ber, etc alongside their field crops. The run off collected in the Farm Ponds was used to provide needed critical irrigation to these crops.	The Department has given importance for increasing the yield by changing cropping pattern using available stored water in the farm pond. The farmers by realising the importance of dryland horticulture and also due to awareness created through National Horticulture Mission themselves have integrated dry land horticulture in their fields which is also a positive impact of this scheme.
II	NABCONS Suggested policy Interventions		
		a Technical aspects	
		i Farm pond	
		1 • It is observed from the field study that site selection in many cases is not according to the watershed concept. Site selection needs to be given more focus and the related technical specifications viz., slope radiant , direction and position of inlet and outlet pipe have to be recorded and ensured that the farmers has constructed the pond accordingly. The accountability and certification may be clearly notified in the guidelines.	The guidelines of Krishibhagya was issued with the clear mention about the Selection of site in accordance with watershed concept and technical specifications related to slope, direction and position of in let and outlets. Record in measurements of Books (MB) for these were also ensured before payment. However, based on the low catchment and farmers field jurisdiction, site selection varied in few cases.
		2 • To ensure maximum storage of harvested rain water frequent desilting may be ensure. Installation of appropriated inlet with filter and outlet to avoid soil erosion will prevent accumulation of silt in the farm pond.	Provision was given in the guidelines to construct silt trap which is mandatory component in each farm pond which helps to hold the silt and make the clear water to flow into the pond.
		3 • There is a need to put in place a mechanism to ensure that proper quality of polythene sheet is supplied by the vendors.	The good quality polythene/ geomembrane was ensured based on the technical specifications as per the KTPP Act while calling for EoI, where in, the samples from the vender were taken along with the valid CIPET test report. Further, the random samples of the supplied material were drawn from each taluk and sent for CIPET test to ensure the specified quality.

	4	<ul style="list-style-type: none"> Keeping in view the spirit behind the scheme i.e. harvesting and providing life saving irrigation, there is a need to replace the polythene sheet after 3 years as it is prone to damages and as result water harvesting is affected due to percolation. 	The farmers were created awareness with regard to the importance of having geomembrane in the farm pond by providing at subsidised rates. Once the farmer realise the income due to higher productivity, they themself will replace it as and when needed.
	5	<ul style="list-style-type: none"> As no support is given for polythene lining in black soil, an alternative mechanism may be supported to avoid bund/structure collapsing as observed during the field study. 	In black soils, the infiltration/percolation of the water is very slow. Hence there is no provision for Geomembrane/polythene sheet. However the burm also recommonded to avoid the collapsing of the structure. Bigger size (21*21*3 meters) farm ponds were constructed in black soils which ensure non collapse of the structure.
	6	<ul style="list-style-type: none"> In order to address the negative externalities like increasing rates of evaporations, the Farm Ponds may be covered with solar panelled enclosures which can give the beneficiaries of assured power and to give reasonable returns by selling the excess power. 	covering with solar panel was not recommonded in the guidelines due to the cost factor. Instead the shade net covering was recommended to avoid the evaporation.
	7	<ul style="list-style-type: none"> Fencing of farm pond may be made mandatory. The Agriculture Department may be made accountable for its implementation strictly to avoid unfortunat incidence of human/cattle falling in to farm pond. 	The guidelines were issued to take up barbed fencing and for which funding was ensured at subsidised rates. However to ensure the safety, 2-3 rubber tubes tied with ropes were also made to float in each farm pond. The ropes were tied to the hard materials/trees to make the fallen human/cattle to escape from farm pond and to avoid unfortunat incidence.
		ii poly house	
		<ul style="list-style-type: none"> Shade nets/poly houses are vulnerable to strong winds. Department may insist upon facilitating wind breakers by the farmers before sanction/release of subsidy. 	The guidelines has been issued to construct tubular poly house structure with strong basement to make the poly house sustain strong winds.
		<ul style="list-style-type: none"> In places where high temperature prevails like Bellary and Koppal district, the green shade nets were found to be useful only for nursery purpose. It is suggested to consider provision of white colour shade net in such hot climate areas. 	The green shade net also able to sustain the hot climate areas also.
	b	Awareness	
		(i) Farm Ponds	
		<ul style="list-style-type: none"> In order to effectively use the Farm Ponds constructed for reaping sustainable benefits in the long run, there is need to create awareness among beneficiary farmers on maintaining the depth of farm pond by removing silt and not to close the farm ponds. 	As per the provisions of the guidelines, construction of silt trap is mandatory to avoid silt entering into the pond. The silt deposited in the silt trap can be desilted once in a 2 to 3 years with minimum cost.

	<ul style="list-style-type: none"> Awareness may be created in areas where change in cropping pattern is possible for increasing income levels. 	The awareness has been created to farmers through training, district level workshops and krishi abhiyana programmes to cultivate high value crops for enhancing farmers income.
	(ii) Poly House	
	One week intensive training to farmers to acquired necessary skills in maintaining the poly house and also growing of different suitable crops for cultivation is needed.	The Department of horticulture has conducted trainings for enabling the farmers to acquire skills in maintaining the poly house. The printed material and videos were also provided to the farmers with respect to cultivation of high value crops in polyhouse. Clarity on mandatory components under polyhouse as per the guidelines is provided at field level.
	More clarity on creating mandatory components under the poly house scheme needs to be provided at the field level.	
	<ul style="list-style-type: none"> Creating awareness on demand for various crops, season-wise demand and supply position and also tie up arrangement with marketing agencies (malls, processing industries, reputed hotels, etc.) so as to avoid glut in the market. 	The farmers are growing various crops suitable to agro climatic conditions. The government is giving importance to form farmers producers organisations and federations where collective marketing is feasible and they can tie up / MOU with various marketing agencies as per their production.
	<ul style="list-style-type: none"> It is observed from the field study the about 25% of farmers belonging to SC/ST category have raised local variety crops instead of cultivating high value crops in their Poly House which has defeated the major objective of increasing Farmers' income. Poor price realization on account of local varieties will dent the viability aspect. It is suggested that these farmers may be adequately provided training on technical aspects of crop cultivation, maintenance of Poly House and its components, marketing and exposure visits to successful models. 	Department has insisted to grow high value vegetables/flowers in the polyhouse and for the same adequate awareness has been created. The payment was also made by ensuring the cultivation of high value crops. At field level wide publicity and awareness through training along with exposure visits has been provided irrespective of the category of the farmers about crop cultivation, maintainance of polyhouse, market situations.
	<ul style="list-style-type: none"> There is a need to develop farmer friendly training modules by the Dept. of Horticulture for different crops grown in Poly Houses. Also, there is need to provide practical training in management of various parameters of protected cultivation. A 'telegram' or 'Whatsapp' group of such trained farmers involving Agriculture and Horticulture Department, crop scientists may be put in place for seeking timely guidance, experience sharing etc. 	The groups have been created for farmenrs involving KVK scientist and Agriculture and Horticulture department officials where guidance and experience sharing is happening.

		III-Other Recommendations	
		(i) Farm Ponds	
		Short Term Measures	
		<ul style="list-style-type: none"> There have been instances of humans and animals falling in the Farm Ponds and some have lost their lives. Since the depth of the farm pond is prescribed to be 3 metres, it is prone to dangers especially during the rainy season. Therefore, it is recommended that provision of subsidy for erecting fencing may be done as that would help in saving lives. 	Provision has been made in the guidelines to provide subsidy for fencing & shade net around farm ponds.
		<ul style="list-style-type: none"> Provision for Diesel Pump sets with subsidy may be consider for individual farmers instead of on group/community basis as per present guidelines. 	Provision for providing diesel pump sets at subsidised rates to individual farmers was made in various on going schemes viz., NFSM, SMAM through convergence on preference for the farmers who have constructed farm ponds under the scheme.
		<ul style="list-style-type: none"> Feasibility of including solar powered pump sets may be considered with adequate subsidy component. 	Since stored water is utilized for critical stages of crop diesel pump sets is sufficient for irrigation of crops.
		Long Term Measures	
		<ul style="list-style-type: none"> In order to ensure sustainable income to the farmers, the beneficiaries may be extended support for pursuing allied/supplementary activities through convergence of schemes like National Horticulture Mission (NHM), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Rashtriya Krishi Vikas Yojane (RKVY) etc., implemented by other Departments like, Horticulture/Forestry, Rural Development & Panchayat Raj (RD&PR), Animal husbandry, Fisheries, etc. 	Steps have been taken to ensure sustainable income through convergence including dryland horticulture, area expansion through NHM, Pashubhagya scheme of Animal husbandary, Biofencing from Department of forestry, etc., which helps the farmers to get sustainable income.
		<ul style="list-style-type: none"> Crop planning may be advocated among the farmers to ensure proper utilisation of water and high returns. 	Cropping system approach was advocated to get high returns in the guidelines with use of sprinklers / drip by utilising the stored water of farm pond.
		<ul style="list-style-type: none"> To ensure optimum utilization of the harvested rain water stored in the farm pond cultivation of less water consuming but high income generating crops like, millets, Coarse Cereals, Oil seeds etc. may be encouraged. Farm models may be prepared and distributed to the identified beneficiaries. 	High income generating short duration crops such as millets were encouraged to all farmers under Raitasiri programme and NFSM through convergence.

	<ul style="list-style-type: none"> Considering the recurring droughts in the State and vast areas cultivated under rainfed conditions, it is recommended that all farm holdings may be supported to establish Farm Ponds along with micro irrigation systems. As per the field study data, 31% of beneficiaries have not installed micro irrigation system. Hence, adoption of Micro irrigation system like Drip/Sprinkler may be made a compulsory component of the Government support to ensure optimum utilization of water. 	Construction of farm ponds along with micro irrigation systems was encouraged to all farmers. However, micro irrigation systems were made provision under convergence from the ongoing schemes of the department. Hence, adoption was gradual based on the funds availability.
	<ul style="list-style-type: none"> Replacement of Micro Irrigation Systems be considered after 5 years. 	Micro Irrigation Systems can be replaced once in 7 years as per GOI guidelines.
	<ul style="list-style-type: none"> Wherever it is feasible more than one farm pond may also be considered for assistance as some of the farmers genuinely need the same. 	As per the scheme guidelines and budget allocation, one farm pond per farmer was restricted in order to cover more number of farmers.
	<ul style="list-style-type: none"> Construction of Large size farm ponds than the prescribed sizes may also be encouraged depending upon the density of rain, preference and affordability by the farmers concerned. However, the subsidy component may be restricted depending upon the availability of funds. 	Construction of large size farm ponds other than prescribed size was allowed by utilising the funds of HDPE polythene sheets where ever it is not required like in black soil and stony lands where percolation of water is minimum.
	<ul style="list-style-type: none"> For effective implementation and defect free maintenance of assets created, periodic inspection of sites is considered expedient. Hence, structured Inspection Report may be prescribed and certification by the field functionary concerned may be introduced to fix accountability. Minimum number of Test/Surprise checks by higher officials may also be prescribed. 	For effective implementation of the scheme while implementing monitoring of the beneficiaries were indicated in the guidelines as below. Viz, Agriculture Officer has to inspect all the farm ponds / beneficiaries, similarly Assistant Director of Agriculture to inspect -25% , Deputy Director of Agriculture-10% and Joint Director of Agriculture-3%
	(ii) Poly House	
	Short Term Measures	
	<ul style="list-style-type: none"> Insurance coverage for Poly Houses and Shade-nets may be ensured since the investment cost is high and farmers have availed bank loans. 	Farmers were advised to take insurance for poly house/shadenets

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Long Term Measures

	<ul style="list-style-type: none"> The Government may initiate steps to identify potential areas/districts and crops for propagation of poly houses across the state. 	Department of Horticulture is implementing construction of polyhouses under NHM across the State.
	<ul style="list-style-type: none"> Establishment of poly houses/Shade nets may be encouraged on cluster basis. 	Polyhouses were provided to all those farmers who applied based on the availability funds.
	<ul style="list-style-type: none"> Since the subsidy element is high and that cultivation of high value & quality crops are being taken up, there is a need to organize them into a network like Farmers Producers Organisation. 	Farmers Producers Organisations are being done both Horticulture and Agriculture Departments also fertilizers Pesticides licences for also being given to them to make members of Farmers Producers Organisation.
	<ul style="list-style-type: none"> Creation of backward and forward linkages on a cluster basis would motivate more farmers to take up poly house cultivation and to tap the available export potential. The GoK has been creating good storage facilities across the state. However, for Poly House farmers there is a need to consider establishing cold storage facilities for a cluster of Poly Houses. Similarly soil and water testing laboratories, quality testing for exports, etc. needs to be created. The concept of establishing Collection Centres for aggregation, grading, packing and transportation may be adopted. 	The State has taken initiation to create FPOs where farmers have been organised to do outward business to tap the export potential of the produces. Soil and water testing laboratories are being set up under SHM programmes and also at KVK's. Initiation has also been taken to establish these laboratories on PPP mode. Packing and grading houses are also constructed under NHM scheme.
	<ul style="list-style-type: none"> Geo tagging of poly houses established and securing details of various crops and quantity being cultivated may be made available on websites of Agriculture, Horticulture and agri-marketing Departments for improved marketing. 	Geo tagging of poly houses and other component were made compulsory before providing the subsidy. In the State of Karnataka, Out of 160 APMCs, 156 APMCs are covered under the Unified Marketing Platform for carrying out on-line trading.
	<ul style="list-style-type: none"> For ensuring continuous supply & to fetch a good price for the Produce from Poly Houses, the Department may arrange buyer-seller meets at cluster level for better price realization by the farmers. 	The farmers were to co-ordinates HOPCOMS for marketing.FPOs are being formed by these farmers to give market linkages.Isolated meetings are being conducted, however efforts will be made to increase the number of melas.
	<ul style="list-style-type: none"> The Department may also prepare suitable model schemes with techno-economic parameters for different crops to facilitate flow of bank finance. The Department may organize field visits to bankers to create awareness on the Scheme and to extend financial assistance to farmers. 	The Lead bank is being involved in various department programmes to facilitate creation of awareness for availing financial assistance to farmers.
	<ul style="list-style-type: none"> State Government has formed District Regional Cooperative Organic Growers Federations to promote cultivation of Millets, Fruits and vegetables, Spices, etc. Farmers supported under Krishi Bhagya Yojane may also be brought under the umbrella of the Federations. 	All farmers including Krishibhagya beneficiaries were given awareness to sell their produce at District level Federation sale points.