



IMPACT OF ORGANIC FARMING VILLAGE PROGRAMME (OFVP) ON FARMERS OF HOSAKOTE TALUK

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ABSTRACT

The growing popularity of organic farming in the State made Government of Karnataka had to out with the novel idea of developing an 'organic village through Organic farming village programme. As a first step towards promotion of organic farming as per the policy, Organic village programme was initiated since 2004-05 under which model organic villages of about 100ha. are being developed one in each district. With the success of the programme, the state government felt it necessary to extend this programme to Taluka level from 2006-07 onwards. Now programme is being extended to another Hobli of the taluk. So, the government intends to promote organic farming through creation of awareness among the farming community and by providing support during the conversion period. The main objective of organic farming village programme is to sustain and enhance the health of ecosystem and organisms and to strengthen organic farming practices with reduced dependence on inorganic farming practices. The programme is mechanised by the Karnataka State Department of Agriculture involving Agriculture, Horticulture, Forestry and Animal husbandry & Veterinary services departments. The present paper is focused on the impact of the programme on farmers of Doddadenahally village, Jadigenahally hobli, Hosakote taluk. The impact is assessed by considering the soil, crop production management, production economic and social indicators based on the opinion of farmers. The programme has positive impact on the farmers based on the parameters considered. The organic farming village programme is successful in Doddadenahally village and is recognized as 'Organic Village' in the taluk.

KEYWORDS: organic farming, awareness, ecosystem, conversion period.

INTRODUCTION

The modern agriculture, with its potential to take the country out of food trap and to reach the year of self sufficiency in food grain production, brought a plethora of environment problems like declining productivity, soil fertility, environmental pollution and health hazards in human beings. To reduce these problems - Government of Karnataka has brought out a policy on organic farming (2004) to promote organic agriculture in the state, with main intention to avoid use of inorganic fertilizers and pesticides which are harmful to human being, soil and environment. State level empowered and working committees have been constituted for implementation of the policy (Preethi Nagaraj, 2012). To encash the growing popularity of Organic farming in the State, Government of Karnataka had come out with the novel idea of developing an 'organic village' through Savayava Grama Yojane (Organic farming village programme) at three phases. As a first step towards promotion of organic farming as per the policy, Organic village/Site programme was initiated since 2004-05 under which model organic sites of about 100ha. are being developed one in each district. With the success of the programme, the state government felt it necessary to extend this programme to Taluka level from 2006-07 onwards. Now programme is being extended to another Hobli of the taluk. So, the government intends to promote organic farming through creation of awareness

among the farming community and by providing support during the conversion period. The main aim of Organic farming village programme is to sustain and enhance the health of ecosystem and organisms and to strengthen organic farming practices with reduced dependence on inorganic farming practices. In this context, the present case study has been conceptualized with the following objective of assessing the impact of OFVP on the farmers of Hosakote taluk.

"Organic farming is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic farm inputs" (FAO, 2010).

Principles of organic farming: According to the International Federation for Organic Agriculture Movement (IFOAM), the principles are:

- Principle one: Health
Organic farming should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
- Principle two: Ecology
Organic farming should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
- Principle Three: Fairness

Organic farming should build on relationships that ensure fairness with regard to the common environment and life opportunities.

- Principle Four: Care

Organic farming should be managed in a precautionary and responsible manner to protect the health and wellbeing of current and future generations and the environment.

Objectives and mechanism of Organic Farming Village Programme (OFVP)

Karnataka is the first Indian state that brought out an organic farming policy through Organic Farming Village Programme where it is implemented in every hobli through a network of NGOs. Under this, 100 hectares of cluster land was selected in every hobli for the development of the organic village. The programme aimed at converting the land under cultivation to organic farming. Farmers were encouraged to take up organic farming and to develop a market for organic produce. Since the development of the village involves participation by the line departments, one of the officials is nominated as nodal officer for the programme. The concerned NGOs recruit two graduates having agriculture background - either having agriculture science degree or an experienced agriculturist and one facilitator from the concerned village is deployed for the implementation of the programme (Shivraj, 2007).

Objectives of Organic Farming Village Programme

- Encourage farmers towards organic farming.
- To sustain the production and conserve health of ecosystem .
- To strengthen eco friendly practices of farming.
- To develop market for organic produce.
- Reduce dependence on inorganic farming practices.

Mechanism of Organic Farming Village Programme (OFVP)

Karnataka is the pioneer of OFVP and executed at three phases.

Phase I- One village from each District will be selected and aimed to convert it in to a model organic village. It operates at district level.

Phase II- It operates at taluk level where one model organic village will be developed in each taluk.

Phase III- It is operated at hobli level where one model village will be developed in each hobli.

Budget allocation for Organic farming in Karnataka

Year	Budget Allocation (Rs.)
2008-09	Rs.2000/family
2009-10	100 crore
2010-11	100 crore
2011-12	206.50 crore
2012-13	206 crore

Source: Organic farming policy, www.kar.nic.in

Proposed area and location

Doddadenahalli comes in Jadigenahally hobli which is 16 kms away from Hosakote taluk. It lies in southern dry zone. Rainfall is erratic and ill distributed. The average rainfall is 630mm spread over from may-october.

Topography and soil

Medium topography, the land slope range from 3-4%. The project area has medium black and red sandy loam with depth ranging from 15-75 cm.

METHODOLOGY

Sample size & Data collection

Fifty farmers have been selected and data is collected through structured Interview schedule. Impact is analysed based on the opinion of farmers.

General

There are 120 families in Doddadenahalli village; the total geographical area is 133 ha. 125acre is under rainfed cultivation, 30-+50 irrigated and 20 acre waste/forest land. There are 28marginal farmers 67 small farmers 10 medium farmers 05 big farmers in the village. The average size of land holding in the area is 2.00 acres the livelihood of 90 % population living in the village is supported by agriculture either directly or indirectly. It has one milk producer society. The capacity produce milk yield of 500 litres/day on an average annually produces 8000litres.

Animal husbandry

Livestock population of this village are about 80 out of which there are 10 cows, 80 HF/Crossbreed cows, 30 Buffaloes, 20 Bullocks, 150 sheeps, 110 goats, 50 hens.

Crop husbandry

The major crops grown are ragi, maize, horse gram, beetroot, carrot and potato, commercial crops mulberry. The yield level is low due to uncertain rainfall and poor soil and water management activities. The trees in the area are nilgiri, honge, tamarind

Instrument used for data collection

Data is collected using structured interview schedule. Parameters like soil, crop practices, production economic and social status indicating parameters are considered under the consultancy and data provided by NGOs and farmers of organic farmers association. Before data is collected using the baseline data recorded by the NGO on the same parameters.

Purpose of the programme

- To make the village cent per cent organic.
- To encourage farmers to take up organic farming and also to be encouraged to develop a market for organic produce.
- To create awareness on the importance of organic farming through farmers.
- The main purpose is to encourage farmers to avoid fertilizers and pesticides, plant growth regulators and livestock feed additives.
- To make farmers rely on crop rotation, integrated pest management crop residues, manures and mechanical cultivation to maintain soil productivity to supply plant nutrients and to control weeds, insects and other pests.

Basal survey of Doddadenahally village, Jadigenahalli hobli, Hosakote taluk**TABLE 1:** Basal survey of Doddadenahally village

Particulars	Village information
Total number of families	120
Total population	860
Male	550
female	350
Total geographical area	
Rainfed	80ha
Irrigated	30ha
waste	20ha
Landholding	
Landless farmers	50
Marginal farmers	28
Small farmers	67
Medium farmers	10
Big farmers	05
Livestock population	
Local Cows	10
Cross breed cows	80
Buffaloes	30
Ox	20
Goat	110
Sheep	150
Cross breed hens	50
Local hens	300
Area under programme	100ha
Borewells	30
Rainfall	630mm
Temperature	28 - 30 degree celsius
MSL	1500
Area under programme	100ha
Borewells	30
Rainfall	630mm
Temperature	28 - 30 degree celsius
Mean Sea Level	1500

Implementation of the programme

The programme is implemented by Line departments like Agriculture, Horticulture, Animal Husbandry, Forestry, Sericulture *etc.*, of Government of Karnataka in association with the NGOs who have knowledge and experience in organic farming.

The programme is now in the third phase of its implementation at hobli level operating in an area of 100ha by forming Organic farmers association where the farmers are well trained on practices of organic farming and are equipped with the organic farming interventions.

Organic Farming Village Programme

Implemented in the year 2008 when the programme was in II phase and now it is in III phase. It is implemented in an area of 100 ha and 120 families enrolled in it with the formation of four organic farmers association.

Crops under organic cultivation

Capsicum, Gourds, Grapes, Ragi , Redgram, Mulberry, Green leafy vegetable

Extension activities

Trainings, Group discussions, Field visits, Field days, Education tour, Organic farming publicity, Association formation, Wall writings.

Procedure to implement the programme

- Identification of village/site for implementation of the programme as per guidelines.
- Carrying out the bench mark survey.
- Preparation of action plan in consultation with the beneficiaries/take holders, ite officer, nodal officer and site committee.
- Execution of activities in close association with the site officer/nodal officers by utilizing grants provided.
- Reporting progress from time to time.
- The NGO would convert 100ha. Site into organic cultivation and make it into model organic farming area.
- The NGO would facilitate in value addition and marketing of organic produce produced in the village/site.
- Creation and maintenance of individual records for ultimate certification as per National standards.
- Collection of information and data with respect to organic farming in the hobli viz., crop wise area under organic farming, availability of organic produce for marketing *etc.*,

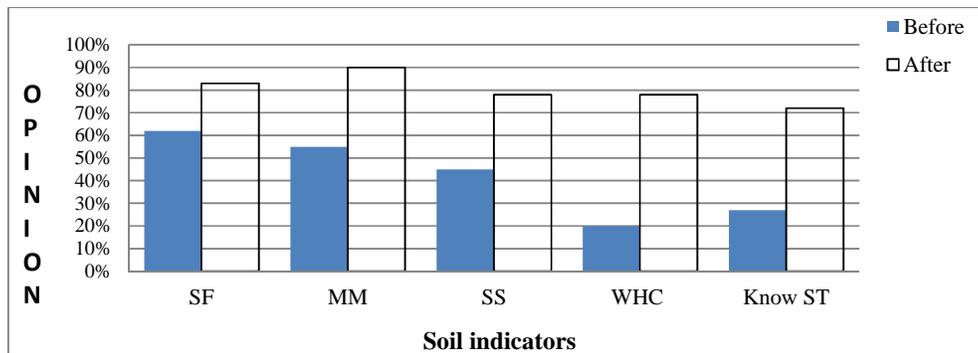
Impact of OFVP on farmers of Hosakote taluk

The impact of OFVP on farmers of Hosakote taluk has been elicited in Doddadenahally village, Jadigenahalli hobli, where the OFVP has been successful. To assess the impact of farmers (50), the soil, crop management, production economics and social indicators were considered under the consultancy of Janadaya NGO as the pre test data was available with them. based on the same parameters the after data is considered and impact is assessed. The impact assessed by considering the farmers opinion about OFVP (before and after).

Majority of farmers have opined that the impact of Soil indicators viz., Soil Fertility (62-83%), Microfauna & Macrofauna (55-90%), Soil Structure (45-78%), Water Holding Capacity (20-78%), Soil Testing (27-72%) and Ph (4.5 to 5.7) have been improved after the OFVP. It is shown in figures.

The farmers have indicated that the impact of crop management indicators viz., Green leaf manuring (43-82%), Application of Organic Manure (33-91%), Vermicompost (18-58%) and Biofertilisers & Biopesticides (12-52%), Practice of mixed cropping & crop rotation (32-70%), Farming system practice (30-92%), Plant Growth and Resistance to adverse condition (16- 76%), Water requirement of crops (27-80%) have been increased after the OFVP. It is given in Table. 2

The farmers felt that the Production economic indicators like reduction in cost of cultivation (35-86%), labour requirement (46-51%), Source of income (75-100%) and crop yield (Ragi, Redgrsm, Capsicum, Grapes) improved in later years. It is shown in Fig.2,3,4,5 respectively. Further, the farmers expressed that the impact of social indicators namely community relations, psychological well being, health condition and social recognition have been improved from 50 percent to 80percent.



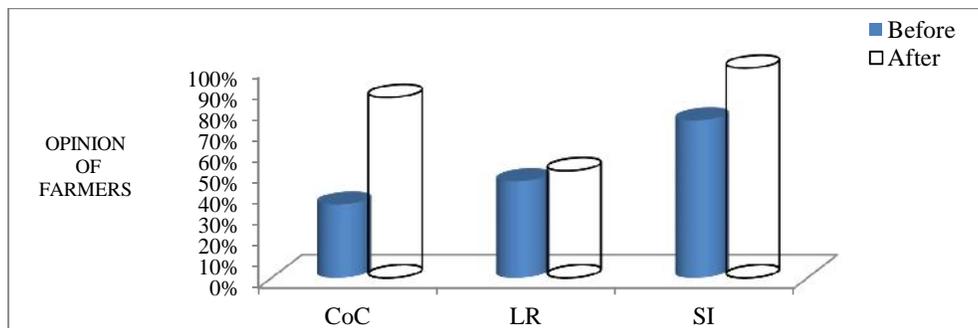
Indicator	Before	After
pH	4.5-6.0	5.7-6.0

SF-Soil Fertility; MM-Microfauna and macrofauna (less); SS- Soil structure; WHC- Water holding capacity; Know ST- Knowledge about soil testing

FIGURE 1: Impact of Soil indicators before and after OFVP

TABLE 2: Impact of Crop Management practices

Crop Management practices	Before	After	Change in Percent
Green leaf manuring practice	43%	82%	39%
Application of organic manure	33%	91%	58%
Application of vermicompost	18%	58%	40%
Cropping pattern(Crop rotation + mixed cropping)	32%	70%	38%
Farming system practice	30%	93%	63%
Plant growth (healthy)	26%	76%	50%
Resistance to adverse condition	16%	50%	34%
Water requirement to crops	27%	80%	53%
Application of Bio-fertilizers and Bio-pesticides	12%	52%	40%
Pest and disease infestation (less)	65%	35%	30% negative opinion.



CoC-Cost of cultivation is less ; LR: Labour requirement is less; SI: Source of income is more

FIGURE 2: Impact of production economic indicators during the considered years

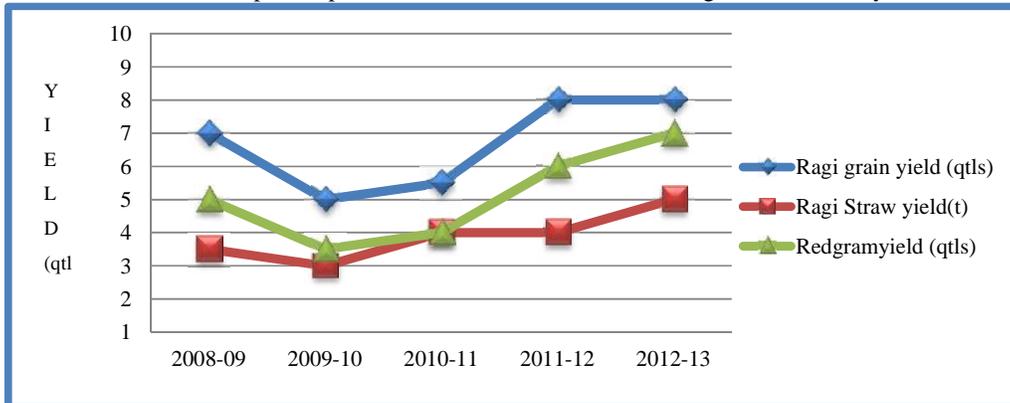


FIGURE 3: Yield/acre of Ragi (grain+straw) and Redgram under organic cultivation in quintals over the selected years

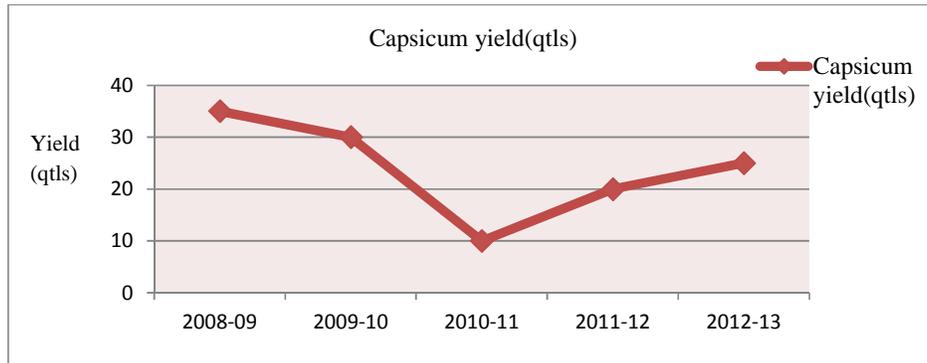


FIGURE 3a: Yield/acre of Capsicum under organic cultivation in quintals over the selected years

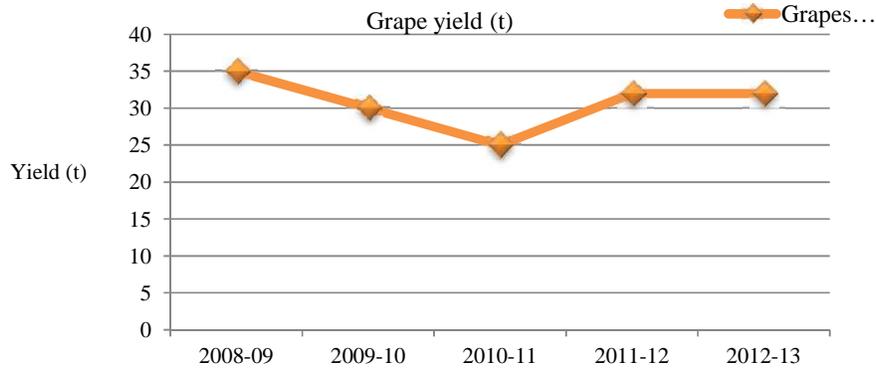
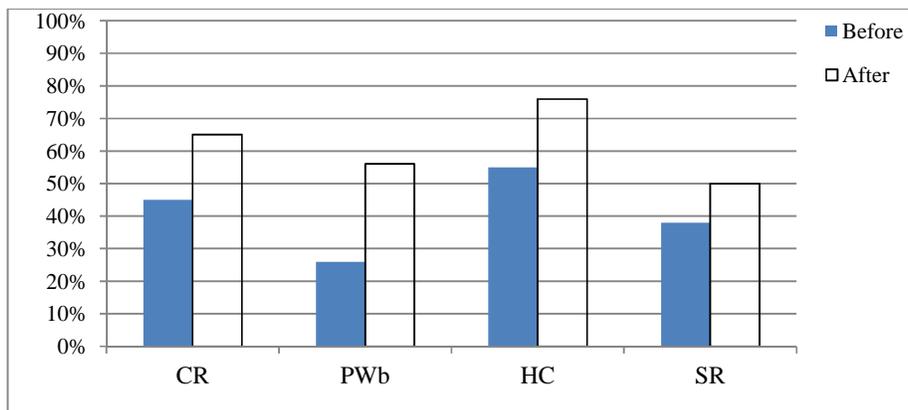


FIGURE 3b: Yield/acre of Capsicum under organic cultivation in tonnes over the selected years



CR-Community relations; PWB: Psychological well being; HC: Health condition; SR: Social recognition.

FIGURE 4: Impact of Social indicators before and after OFVP

TABLE 3: General changes in the village after the programme implementation

Before	After
There was no association related to crops	Organic vegetable growers Association
Importance of associations bank account was not known	They know the importance of bank account
Marketing was problem	Marketing is easy
Animal husbandry	Local breed population increased
Local breeds were less	
Waste land was under eucalyptus plants	Its under green leaf manuring crops
Manure production/year - 28t	Crossed 100t
Extension activities was meager	Extension activities are frequent
Participatory guarantee system (PGS)?	Works with PGS.
No crop insurance system	Crop insurance system exists
Limited occupations were known	Opened wider doors of occupation

Necessities of organic farming

Any practice related to organic farming will be successful only if the basic requirements are met. The major basic requirement for any organic farming to be successful is water, vegetation and animal husbandry. Organic farming will be successful if these necessities are present. Without these the organic farming will be utter failure. Water is to maintain the temperature of compost pits and for better decomposition. Vegetation is the basic component of compost or manure which supplements the contents present in inorganic fertilizers and provides good organic matter and moisture content for good quality of compost/manure preparation. Animal husbandry is the major component because it is the one where the major requirement of dung and urine will be provided which are the major supplements of nitrogenous components. Any village will be successful with organic farming if all these resources are in enough quantity.

SUMMARY

The Organic farming Village Programme (OFVP) is the pioneer novel idea of Government of Karnataka initiated in the year 2004-05. The programme been implemented at three phases. With completion of first two phase, now its operating in third phase where one village will be selected from each hobli in a taluk. The objective of OFVP is optimization and stabilization of agricultural production by promoting cost effective organic practices leading to conservation of biodiversity. With this background the impact is assessed by considering the soil, crop management, production economics and social indicators of 50 farmers of Doddadenahally village, Jadigenahally

hobli, Hosakote taluk. The data collected with a structured interview schedule based on the opinion of farmers. The results depicts that the programme has positive impact on all the indicators of parameters considered except pest and disease infestation indicator in crop management parameter. The programme has fulfilled the objective of the programme and is successful and sustained.

CONCLUSION

Karnataka Government has come out with the novel idea of developing an "organic village" in every taluk has been fulfilled by the OFVP which aimed at popularising the organic farming. This programme aimed at making the whole village as organic. Farmers of Doddadenahally have been encouraged to take up organic farming and develop organic market. Active participation of farmers, line departments and concerned NGO's are the cause for the development of the village as organic village. The OFVP impact on farmers of Hosakote taluk is not only on economic and ecological condition of farmers but also has its impact on their day to day life activities and social interactions

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