

Cultivation of red cabbage in Coastal Shyamnagar and Kaligonj upazilla subsumed by Nowabenki Gonomukhi Foundation

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ABSTRACT

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NGF working to disseminate new technology and new crop in the coastal saline area. Farmer generally get Aman rice then field become highly saline but using new climatic resilient technique farmer can cultivate Rabi crop in the specific area. For increasing production and cropping pattern it is crying need to introduce new high valued, short durational crop to this area. As a result NGF demonstrate different new crop in the farmer field. Farmer adopt Red Cabbage as high valued crop.

Keywords - DAE(Department of Agricultural Extension), NGF- Nowabenki Gonomukhi Foundation, PKSf- Palli Karma-Sahayak Foundation, Cole crop-cauliflower, cabbage, Beet root, knokhol

I. INTRODUCTION

NGF is working in the south west coastal region of Bangladesh from last three decades focusing on sustainable livelihood, women economic empowerment and humanitarian assistance in environmental friendly ways. To ensuring sustainable livelihood, NGF from its beginning emphasizes the agro based technological knowledge development and technological knowledge dissemination for the farmers of agro industries. In addition, to overcome the adverse effect of climate change and ensuring proper nutrition and maximum profit of the marginal farmers, NGF is implementing Agriculture Unit funded by PKSf since January'2014. Under this program NGF is working mainly on adaptation and dissemination of modern technologies related to

Agriculture among marginal farmers such as- a) Grants for demonstration plot establishment b) Technical support, result dissemination activities (Field day, Enhancement tour), c) Skill development activities (Farmers training on related technologies, Agriculture advising center), d) Material support (Seeds, Pheromones Leor, Fruits bag), e) Advertisement (Bill board, Informative sign board) and f) knowledge and experience sharing activities (Publication, Leaflet, Booklet & Brochures) (www.ngf-bd.org). It's working for Development in agricultural sector. It provides equip mental support and Technical Support to the farmer. Agriculture officer Demonstrate different technology based Practices in the farmer field. In the coastal region farmers faced different problem in crop cultivation as Salinity, Scarcity of suitable water for irrigation, less

salt tolerant variety. So farmer try to cultivate in traditional way but recently DAE and Non-government Organization trying to spread out new technology and new cropping system among Shyamnagr and Kaligonj Upazilla of Satkhira District. As Success of Non-Government organization working since 2013 to till now for spreading new agricultural practice as save vegetable production, organic fertilizer production, trichocompost production, vermicompost production, copping with climate change through Minipond and surgeon system crop production, Increasing Cropping pattern and new crop variety.

NGF demanded that they introduce Black rice, Capsicum and red cabbage to the Coastal Satkhira. For result demonstration they arrange Field day and Agriculture service center with different Specialist. Recently agriculture unit of NGF creates roaring wave in Kaligonj and Shyamnagar Upazilla by Red cabbage cultivation. Farmer takes very positively the crop and in the 2022 Many farmer cultivating Red cabbage as high valued crop.

II. METHODS AND MATERIAL

The data was collected from individual interview basis in Shyamnagar is located at 22.3306°N 89.1028°E. (https://en.wikipedia.org/wiki/Shyamnagar_Upazila) and Kaliganj Upazila located in between 22°19' and 22°33' north latitudes and in between 88°58' and 89°10' east longitudes. (https://en.banglapedia.org/index.php?title=Kaliganj_Upazila_%28Satkhira_District%29). The data was analysis in MS Excel windows 10. Benefit cost ratio (BCR) = (Total income- total cost)/Total cost was calculated for the crop.

III. RESULTS AND DISCUSSION

Cabbage, comprising several cultivars of *Brassica oleracea*, is a leafy green, red (purple), or white (pale

green) biennial plant grown as an annual vegetable crop for its dense-leaved heads. It is descended from the wild cabbage (*B. oleracea* var. *oleracea*), and belongs to the "cole crops". Cabbage heads are generally picked during the first year of the plant's life cycle, but plants intended for seed are allowed to grow a second year and must be kept separate from other cole crops to prevent cross-pollination. Red cabbage develops its deep, reddish-purple color from growing in acidic soil. With thicker leaves that have a faintly peppery taste, red cabbage tends to keep longer than its green cousin. Thriving in humid climates with well-fertilized soil, red cabbage is primarily a winter crop. Like green cabbage, it can be used raw or cooked. Its sweet-spicy flavor and brilling color make it delicious in cole slaw.

Figure-1: Life cycle of the red cabbage in farmer field



In the Fiscal year 2020-21 NGF provide Rubi king variety seed and Equipment among 4 farmers. Farmers get High price because the attractive color and taste. The price was comparatively more than green cabbage. In the December month Green cabbage was 08-12 taka per kg but Red cabbage was 15-18 taka per kg and consumer demanded. In the 2021-22 Fiscal Year 28 Farmer in 5 acre and 2022-23 Fiscal Year 49 in 20 acre area cultivating red cabbage in their own effort. So the crop is adopted by farmer for the NGF initiative. Comparative study has shown

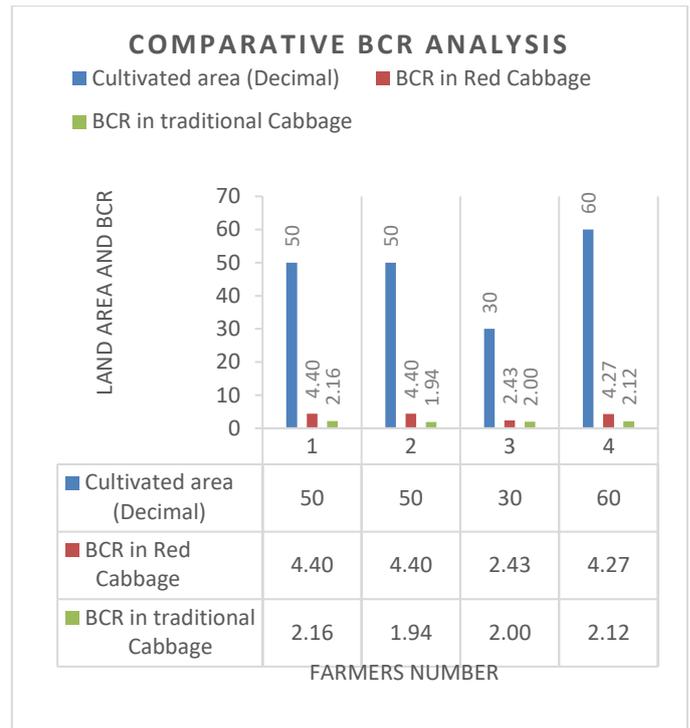
between red cabbage and green cabbage cultivated farmers BCR in the table-1.

Table-1: Comparative benefit cost ratio between red cabbage and green cabbage in same area cultivated farmers

Sl. N.	Farmer	Upazilla	Area (Decimal)	BCR
Red cabbage cultivate				
1	Selina	Shyamnagar	50	4.40
2	Momotaz	Kaligonj	50	4.40
3	Asia	Kaligonj	30	2.43
4	Fatea	Kaligonj	60	4.27
Green cabbage cultivate				
1	Moidul	Shyamnagar	50	2.16
2	Anuar	Kaligonj	50	1.94
3	Hamidur	Kaligonj	30	2.00
4	Rashed	Shyamnagar	60	2.12

*In the 1 Bigha (33 Decimal) land farmer can cultivate nearby 4500-5000 piece red cabbage. The BCR in red cabbage is higher than green cabbage. The large farmer can get more outcome for same maintenance cost for only attractive color to consumer. Comparative study has shown between red cabbage and green cabbage cultivated farmers BCR in the Figure-2.

Figure-2: Comparative benefit cost ratio between red cabbage and green cabbage in same area cultivated farmer's



Red Cabbage need to cultivate early Rabi season as the seedling need to germinate in August month. Then farmer can Transplant seedling in September month. For getting early harvest in November Farmer get high value besides they can again cultivate another cole crop in same land.

August -September -October -November -December -January

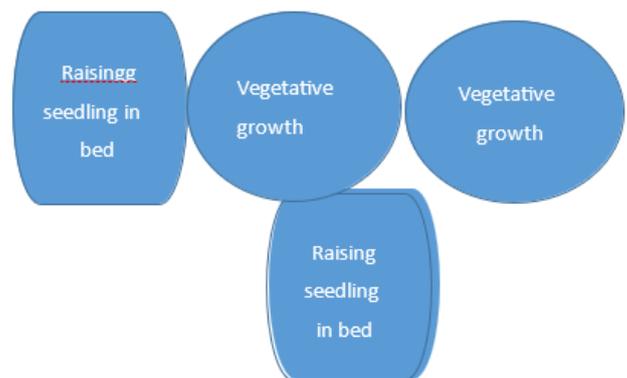


Figure-3 : The model showed that farmer can harvest two crop instead one crop through

Farmer can harvest 2 crops from mid-August to January instate one crop based coastal agriculture. So they can earn double in the same time. It also reduce

Intercultural operation cost. Agriculture Unit of NGF observed that the crop has highly adopted by farmer. In the fiscal year 2021-22 Kaliganj Upazilla 18th farmer cultivated 5 acre (500 decimal) land.

IV. CONCLUSION

NGF working to spread new agricultural technology and crop among coastal farmer. Farmer willingly adopting different new crop variety. Among them Red cabbage is a successful example. For high valued and customer attractive large number of farmer cultivating red cabbage instate of green cabbage. As high valued elite vegetable farmer more interested to capsicum cultivation.

V. REFERENCES

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