

# ENVIRONMENTAL IMPACT ON MANGO PRODUCTION IN SOME SELECTED GRAM PANCHAYETS OF ENGLISH BAZAR BLOCKS IN THE DISTRICT OF MALDA

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**Abstract:** The aim of the paper is to study the environmental impact on mango production and to find out the related problems and also given the effective suggestion to solve the problems. I have collected the related data and then analysed and interpreted with suitable diagrams.

Malda district is formed by the undulating plain of North Bengal. It is divided into 3 segments, namely by (a) Barind (b) Tal and (c) Diara. The study area is under Diara region. The climate of this area is Obviously Monsoon climate where avg. temperature is 25-27°C and the rainfall is 150-200 cm. However, Mango is the main fruit crop in this region and there is a great economic impact of it on the people. Mango is a Seasonal crop. I have prepared some diagrams about the production of mango, longevity of mango mango packing and processing, fluctuating production of mango of different years due to environmental impact etc, and have been given suggestion for development of my study area.

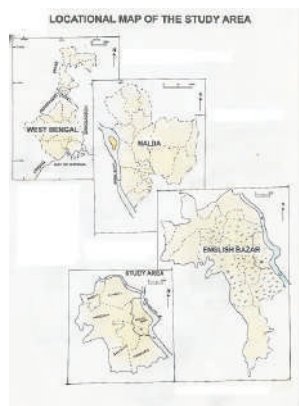
**Keyword:** Environmental, Gram Panchayets, English Bazar, economic.

## INTRODUCTION

Although mango orchard falls under the category of pomoculture- a branch of Horticulture. Mango is an important fruit crop of my study area. General people known Malda, as a famous of fazli mango. But now a day that place has been taken by Himsagar and Ashina.

## PHYSICAL PARAMETER RELIEF, STRUCTURE. & DRAINAGE

Physiographically, Malda district obviously an outcome of the gradual undulating plain of North Bengal, together with their juxta- position with the neighboring land surface" (Morgan & Mack Intier). Physiographically, Malda district is divided into 3 zones i. e. - (1) Barind (2) Tal and (3) Diara. The study area is in Diara region. The general slope of this region is southward. The Mahananda River flows through the eastern margin of this area, following general slope of the land.



mainstay of local economy. In my study area, Monsoon climate is obviously found. So the summer season is wet while winter season is dry. Maximum temperature (45°C) occurs during May whereas minimum temp. (10°C) is found in January. The average rainfall of this region is 1413.1 mm. More than 77% of rainfall occurs during the rainy season for the month of July to September, by the monsoon wind.

## VEGETATION

Deciduous types of vegetations are generally found, such as Mango, Bamboo, Lichi etc. These are directly related with the source of income, use of building materials and provide the fuel of the local people.

## SOIL

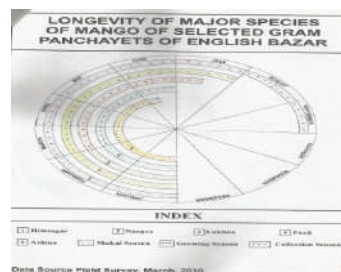
Soil is the important controlling factor for the selection of crops, for example loamy alluvial is suitable for paddy cultivation. In our study area, diara region newly formed alluvial soil i. e. - Khadar is found. Generally soil is fertile.

TABLE -3 LONGEVITY OF MAJOR SPECIES OF MANGO.

SL NO	NAME OF SPECIES	MUKUL SEASON	GROWING/ MATURITY SEASON	COLLECTION
1	Himsagar	Jan -Feb	March to 15 <sup>th</sup> May	15 <sup>th</sup> May to 15 <sup>th</sup> June
2	Nangra	.....	March - to 30 <sup>th</sup> May	1 <sup>st</sup> June to 30 <sup>th</sup> June
3	Lakshna	.....	March to 14 <sup>th</sup> June	30 <sup>th</sup> June 15 <sup>th</sup> July
4	Fazli	.....	March to 30 <sup>th</sup> June	30 <sup>th</sup> June to 30 <sup>th</sup> July
5	Ashina	.....	March to 15 <sup>th</sup> August	15 <sup>th</sup> Aug to Sep

2010

Data source, field March -



## CLIMATE

Climate plays an important role for the selection of crops as well as success of the agriculture which is the

After analyzing the data and depicting of diagram. We find that January to February months, are mukul season of the every species of mango. But growing season and collection season are varied from time to time. As for example himsagar which is growing fastest from March to mid May and it is collected from mid May to mid June. The rest of the mangos shown in the above table following the time of mukul season, growing season and collection season. It may be pointed out that the species of Ashina which lasted a long time. It is collected from mid August to September or in the Bengali month Of Aswin and thus the term Ashina is derived from here.

### PRODUCTIVITY OF DIFFERENT SPECIES OF MANGOES AT DIFFERENT STAGES

Productivity of mango means the output production of mango per tree. We find that there is a great disparity of productivity of mango at different stages. In the initial stage (<5 years) all the species of mango trees are produced relatively lower than the maturity stage (<10-15 years) after that the trees of all the species of mango is decreasing the production and thus finally, the production capabilities of the trees are relatively very low at the old stage. The productivity of different species of mangoes at different stages is shown below.

TABLE -2 PRODUCTIVITY OF MAJOR SPECIES OF MANGO AT DIFFERENT SATGES.

SL NO	SPECIES	Age group with production capabilities				
		<5YRS	5-10	10-15	15-20	20YRS>
1	Ashina	5	7	20	12	8
1	Fazli	3.5	6	15	10	7
3	Nangra	3	5	7	5	4
4	Himsagar	2	4	9	6	5
5	Lakhna	4	7	10	7	6

1 mond 40 kg 42 kg.(pucca weight)  
Dta source Field survey March 2010

TABLE -3 PRODUCTION OF MANGO (2005-2009) Productivity kg/ha

SL NO	G.P	AREA CONVERED	2005	2006	2007	2008	2009
1	Amurity	357	4300	9888	5000	10000	5632
2	Kotuali	385	3907	8004	5200	9985	5340
3	Kazigram	635	2760	10500	6700	10400	64500
4	Jadupur-1	430	5058	8850	4390	9898	5225
5	Jadupur-2	465	4455	9150	4840	9350	4145

Data Source A.D.O.English Bzar Malda.

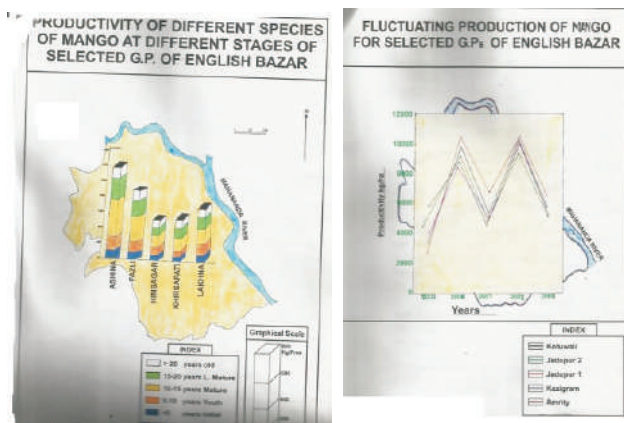


TABLE 4; FLUCTUATING PRODUCTION OF MANGO; (2006 - 2010)

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Source A.D.O, English Bazar, Malda.

“There is one year bumper production and the next year production is decreased”. This is the nature of mango production. There is also a disparity of productivity per hect. At different Gram Panchayet of different season. As for example in Amrity Gram Panchayet the average productivity of mango was 4300kg/ ha. In 2006, whereas, it was 9888 kg/ ha. In 2007 and 10000 kg/ ha. In 2009 approximately. Because this is a nature of mango trees. Moreover mango is a cash crops which is affected by natural calamities i.e. cyclones, thunderstorm, hail and snowfall, flood, drought, pesticides, insecticides etc. Such natural hazard decreased the gross production of mango. In the study areas I found heavy production in 2007 and 2009 whereas it was significantly decreased in 2006, 2008 and 2010.

### TABLE-4 LABOUR ENGAGED IN MANGO PROCESSING FACTORY

SL. NO	Gram Panchayets	NO. OF FACTORIES	CHILD Labours	MALE Labours	FEMALE Labours	TOTAL Labours
1	Amrity	1	10	15	30	55
2	Koutuali	1	18	22	35	75
3	Kazigram	2	20	30	70	120
4	Jadupur -1	2	20	25	80	125
5	Jadupur -2	1	15	18	30	66

Data Source; Field Survey June, 2010

### PROBLEMS OF AGRICULTURE AT GLANCE STUDY AREA.

Low productivity/ha  
Small size land holding due division and sub division of lands due to law of inheritance  
Poor economic condition of the farmers  
Lack of modern agricultural education.  
Natural hazard such as frequent flood ,storm, hail ,erratic, nature of Monsoon etc destroy the crops  
Reckless destruction of mango trees for the constructions of building & road rail way lines.

### SUGGESTION FOR DEVELOPMENT

1st is to check population explosion is increasing day by day out leaps and bounds so many problems increase like unemployment among the agricultural labour expansion is another problem ,which is occupying agril land, land value increase infact rural landscape changed rapidly  
Spread of education/ human awareness.  
Increase credit facility by the govt.to encourages west mango production.  
Increase in cropping intensity and use of land planned way.

**PROSPECTS**

It is good news for the farmers that central govt. has given more emphasize on agriculture for economic development. Therefore I think the farmers get a golden opportunity for their cultivation.

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