

**IMPACT OF DEVELOPMENT AND PATTERN OF ENVIRONMENTAL
CHANGE AROUND GOALPARA VILLAGE IN BIRBHUM DISTRICT, WEST
BENGAL**

Anuj Prakash Mondal*

ABSTRACT

Santiniketan being a place of tourist attraction, now continues to extend its influence over the surrounding village environment. Goalpara village located just to the north of Santiniketan is an example of such a village which comes under the impact of this process. A reconnaissance survey has been carried out upon Goalpara village to understand the pattern of modernization and environmental changes as well under the extended impact of Santiniketan tourist area.

KEYWORDS: Environmental Change, Development, Literacy, New Settlers, Old residents

INTRODUCTION

Goalpara is a village upon which the impact of development is very remarkable as it is situated within very beautiful surroundings and at present a number of people from metropolitan city has come to this village to get rid of modern technology painted fast life and they have decided to stay here happily. As a result, the environmental pattern is changed here. And if this trend is continued, finally this village will be converted to an urban centre. Then the economic pattern and the standard of living of the local people will increase in one hand and over all development will be possible in other hand, which will remove the distance between the villages and town.

OBJECTIVES OF THE STUDY

The principle objectives of this work based on field observation are as follows:

- To highlight the development aspects and environmental change around Goalpara village.
- To find out the role of newly built up settlement site on the development as well as environmental change of Goalpara village.
- To assess the impact of development on the area under study.

DATA BASE

Data have been collected mainly through field survey. Besides data have also been collected from different government offices like Ruppur Panchayet, Santiniketan – Sriniketan Development Authority (S.S.D.A), Santiniketan–Sriniketan Block Development Office, Bolpur BLRO, Transport Office, Information and Broadcasting Office (Govt. of W.B) in Suri, Birbhum, NATMO, SOI, Census of India, Kolkata, etc and from topographical map, District Planning Map Series (DPMS), Census of Birbhum District, Gazetteer of Birbhum District. In addition, information has been collected from seminar library, Dept. of Geography, Visva-Bharati, Central Library, Visva-Bharati and through personal interview and from other sources.

METHODOLOGY OF RESEARCH

Prior to visiting the Goalpara village and the surroundings, the existing literature, governmental published reports, official information, various cartographic products were minutely looked upon to prepare a complete field work programme. The post field work

*Assistant teacher in Geography, Sankari High School, Khandaghosh, Burdwan.

includes the analysis of the data and information collected. This helped interpretation of the information, existing scenario and to find out the future trends. In this regard few cartographic techniques to elucidate the pattern and trend have been made for completion of the work.

LOCATION

Goalpara is a village which is situated in the southern part of the Birbhum district. This village is under Bolpur Police Station and Bolpur–Sriniketan Development Block. Now it is a village under the area of S.S.D.A (Santiniketan Sriniketan Development Authority). This village is lying on the right bank of Sal or Kopai river. The absolute location of this village in terms of latitude and longitude is lat. 23^o42'30" N and long. 87^o41'00" E. The village is bounded by Kopai river in the north, by Banerpukurdanga village in the south by Taltore village in the east and by Rohadanga village in the west. The area is 3 to 4 km away from Tagore’s Santiniketan.

CHANGING DYNAMICS OF THE STUDY AREA

Demographic Changes

Considerable changes in demographic aspect have occurred in Goalpara village. Comparison between the census data of 1991 and 2001 of Goalpara village reveals that-

A) The first change is that the total population increasing by 20.64 percent by 10 years. In 1991, the total population was 1560 but in 2001 the total population reached to 1882. So, the decadal growth rate (1991-2001) is 20.64 percent, where as the decadal growth rate (1991-2001) of population in Bolpur – Sriniketan Block is 17.64 percent. This much increase of population size is not only due to the natural growth rate but also because of immigration of a large number of families in this area. In 1991, the total household was 274 but in 2001, the number of household reached to 368. 94 households were increased just by a decade. This much of people have come to this rural area mainly from urban centres to get rid of modern technology painted fast life. In this regard, a survey was conducted upon 50 new residents to find out the periods of construction of their houses by interviewing them and the following results comes out –

Table 1, Periods of Construction of the new houses in Goalpara

<i>Period of construction</i>	<i>Nos said Yes</i>	<i>%</i>
1980 - 85	2	4
1986 - 90	3	6
1991 - 95	4	8
1996 - 2000	11	22
after 2000	30	60
<i>Total nos identified</i>	<i>50</i>	<i>100</i>

Source: Field survey.

The table - 1 shows that maximum houses (60 percent) have been constructed after 2000. 22 percent houses have been constructed between 1996 and 2000 and 8 percent houses have been constructed between 1991 and 1995. So, within a decade (1991- 2001) there constructed 90 percent (60 percent + 22 percent + 8 percent) houses out of the total new houses. Only 10 percent houses were constructed between 1980 and 1990. That means the new settlers started to come here from 1980’s but the tendency has increased after 1991.

B) The second remarkable change which has occurred in demography is male-female ratio. In 1991 the ratio was 1000: 982, that means 982 females per thousand males and in 2001 the ratio developed into 1000: 1015 (Male: Female). This is a great change in comparison to the rest part of the state as well of the country. This may be considered as positive change because if the percentage of female is greater than the percentage of male in any area that indicates the development e.g. Kerala states in Southern India.

Economic Change Over

The economic pattern of Goalpara has been drastically changed by one decade (1991-2001). This change has mainly occurred in agricultural sector. As a result, a huge number of persons have engaged in other works leaving their agricultural activities. But in household facilities, the percentage of persons engaged in 1991 and 2001 is almost same. From the following table it will be clear.

Table 2, Change of Economic Activities of the people in Goalpara

<i>Persons Engaged in Economic Activities</i>	<i>1991(% of Persons)</i>	<i>2001(% of Persons)</i>
Agricultural Activities	83	44
Household Industries	5	5
Other Activities	12	51
Total Persons engaged in Economic Activities	100	100

Source: Birbhum District Census of 1991 & 2001

From this diagram, it can be said that in 1991, agriculture was the backbone of economy of the village where 83 percent of the working populations were engaged and then a limited number of working persons (only 12 percent) were engaged in other work (including service and business). But in 2001 the persons engaged in agricultural activity was 44 percent. It shows that agriculture was not the main economy of 2001 rather other works (including business and service) contributed a major portion to the economy. But the interesting picture is that there was no changes occurred in case of household based activities. Because, household industries include black-smith, potter, carpenter etc., they did not change their activities side by side any other persons did not accept such occupation.

However, the main cause behind the changes of economic activities of the people is the immigration of new settlers. The new residents, who have come here, are mostly engaged in service, business and other activities. Side by side, the old residents have followed them as the economic conditions of the new residents are much better than the old. Besides, previously a farmer's son had no option of work except cultivate the land. But, latter they leaved their agricultural activities and have engaged in different other works, such as, electricians, supplier, medical representative, contractor etc. Other activities also include some marginal works such as rickshaw driver, car driver, etc.

Therefore, it is very clear that the impact of development has a great role on the economic activities of the Goalpara village. As a result, the pattern of economy has also changed widely.

Change in Standard of Living

Previously, the living standard of the people of Goalpara village was low due to economic backwardness. But, now as the economy develops significantly, the standard of living increases considerably.

Change in Educational Standard

Remarkable change is found in literacy in Goalpara village. If we compare the literacy rate of 1991 and 2001, it will be clear to us.

Table 3, Pattern of literacy rate in 1991 and 2001

Literacy	Literacy rate, 1991	Literacy rate, 2001
Total Literacy	60%	70%
Male Literacy	65%	75%
Female Literacy	55%	65%

Source: Birbhum District Census, 1991 and 2001

From this table it is clear that the rate of literacy has increased significantly and the female literacy is not neglected. Previously we discussed that the male-female ratio of 1991 was 1000: 982 and in 2001 it reached 1000: 1015, where the state average was 1000: 933. It shows that the females are not neglected here.

In this regard, it has to be mentioned that the educational facility available here are quite good. In this village, there are two primary school (one government and another non-govt.) and one high school. The distance of higher secondary school and college is 5 km away from the village. The H.S. Schools and college are located at Bolpur. Besides, in between Bolpur and this village at 4 km distance, there is Visva-Bharati University which provides education, from Class – I to Ph.D degree. So, the educational facilities are satisfactory. As a result the percentage of literacy in this village is high. If we compare the educational standard of the people of Goalpara village between 1991 and 2001 with the help of the data collected by Ruppur Gram Panchayat we can find the actual change.

Table 4, Change in Educational Standard of the people of Goalpara village

Educational Status	1991	2001
	% of people	% of people
Primary	20	8
Secondary (Class V – X)	20	14
Higher Secondary (Class XI – XII)	12	22
Graduation	6	20
M.A.	2	6
Uneducated	40	30
Total nos. surveyed	100	100

Source: Field survey.

From this table, it can be said that the educational standard of the people of Goalpara village has increased to a large extent by a decade (1991 – 2001). In 1991 the percentage of primary and secondary education was more (20 percent both) but the percentage of higher education was less (H.S – 12 percent, Graduate – 6 percent, M.A – 2 percent) while in 2001 the percentage of primary and secondary education is less 8 percent and 14 percent respectively, but the percentage of higher education is more (H.S – 22 percent, Graduate – 20 percent, and M.A - 6 percent). The number of uneducated people has decreased by 10 percent by a decade (1991-2001). It can be said that side by side of educational standard, the standard of living of the people of this village has increased to a large extent.

Change in Health Standard

The health aspect of the people of Goalpara village has changed considerably. Previously, the economic standard of the people was low and due to lack of knowledge, they were less conscious about their health and hygiene. As a result, they usually suffered from the severe diseases. For example, in 1984, a large number of people of Goalpara village were affected by the severe cholera. But now, due to the development of economy of the people and due to having proper education and consciousness, they hardly suffer from severe diseases.

Previously, the transport and communication system of this village was not good. So, in case of emergency to take one to the Primary Health Centre of Bolpur or to the sub-divisional Hospital of Sian, was a difficult task; therefore the people would be deprived from the medical facilities. But now, the transport and communication system of the village is good and the people can easily come to the hospital within half an hour and can get the medical facilities. It indicates that the standard of living of the people of Goalpara village has increased significantly.

Life expectancy of the people has increased to a large extent due to development of the health condition of the people. In between 1980 and 1990, the average age of death of the people was 70 years, but now it is increased up to 80 years. This increase in life-expectancy shows that the standard of living of the people of Goalpara village has developed significantly.

Change of Social Awareness

With the development of economic condition, demographic pattern, educational standard of the people, they also become much conscious about their society. It can be easily understood if we notice female sex ratio. In 1991, the male-female ratio was 1000 : 982 but in 2001 it became 1000 : 1015, while throughout the country, the number of females per thousand males are decreasing. Generally less educated people and ordinary people try to avoid the female child and sometimes they take the way of abortion to avoid female child. But the people of this village are well educated and conscious about females. They realize the value of the females in the society, so they do not neglect girl child rather they expect girl child. Hence, the male-female ratio is quite different here. It shows the positive sign of social awareness.

In this village, females play an outstanding contribution to the society. By seeing this much of participation of female in the society, the State Government established an institution for the welfare of the women of Goalpara village on 25th October, 2005, which is known as 'Bolpur – Sriniketan Block Mahila Mahasangha.' The main function of this institution is to give the computer education to the female, training of handicraft etc. Besides, this institution provides loans to the different female self-help groups for their development.

Therefore, it can be said that, the perception of the people of Goalpara village towards the women is admirable. But 10 or 20 years back, the position of the females in the society was not good, whereas at present, the females of this village take part in every activities of the society. This fact indicates that the social awareness of the people has increased to a large extent.

Environmental Changes

The natural environment of the study area has changed significantly since last few years. As the number of newly built up houses as well as total number of population have increased to a large extent, these must have some impact upon the natural environment of the area. Some changes are discussed below:

- i) Before 1991, there was huge agricultural land and the agricultural production was more. But a large number of people have come to this area after 1991 and constructed their houses especially on the agricultural land. As a result the amount of agricultural land as natural resources was markedly decreased. Consequently, the agricultural production as well as agricultural resources has also reduced significantly. The vast open area is now covered by the jungle of concrete. In this way the natural environment of this area has been changed to some extent.
- ii) Besides, there are two brick factory existing near Goalpara village. One is situated in the northern part of the village, just on the right bank of river Kopai. Another brick factory is located quite far from village and that lies on the left

bank of river Kopai. However, they affect the natural environment of Goalpara to some extent. Throughout the chimney of brick factory, huge amount of smokes comes out and that smokes mixed up with the air, disturbs the atmospheric freshness of the village. Apart from that, due to cutting of soil in order to make the brick, soil erosion takes place. As a result, the profile of the soil or the character of the soil is being changed gradually. But, before the establishment of the brick field there was no such environmental problem found around Goalpara village. So, it can be said that the natural environment of Goalpara has been changed to some extent.

Perception of the people towards the changes

It has already been stated that due to immigration of new settlers from the different urban centres, cities and metropolitan cities to the Goalpara village, considerable changes have occurred since last few years. As a result, the life style of the local people has been changed to some extent, side by side the perception of the people, their beliefs, values; attitudes have also been changed due to course of time.

It is to be mentioned that the perception of the old residents about the environment differs from that of the new settlers. Hence, an attempt has been made to examine the perceptions of both the old residents and the new settlers of this area. In order to judge the perception of the old residents and the new settlers, separate sets of data were generated through the field study by interviewing a) old residents and b) new settlers (immigrants). In each case random sampling procedure was followed in which 50 people are selected randomly but interviewed systematically on the basis of organized questionnaire pattern.

Perceptions of the new home owners about this village

The new residents who are residing in this village since 1-5 years have certain perception towards the environment of the area and have some experiences about the old residents of this village. Hence, several data sets were generated by interviewing people from different angles. The following aspects were considered under this part of the study

- Purpose of the new residents for construction of houses in Goalpara.
- Experience of the new settlers about the environment of Goalpara.
- Experience of the new settlers about the local people of Goalpara.
- Major problems faced by the new residents.
- Desire of the new home owners for staying in this place.

Purpose of the new residents for construction of houses in Goalpara

In order to know the purpose of the new residents about the aforesaid matter this study has been conducted upon interviewing 50 peoples in random way in Goalpara village. The result of the study has been displayed in table 6.

Table 5, Purpose of the new residents for building construction in this area

<i>Purpose of construction</i>	<i>Nos said Yes</i>	<i>%</i>
As a holiday resort	6	12
For permanent settlement	25	50
For lending as rented house	10	20
Any other purpose	9	18
<i>Total nos interviewed</i>	<i>50</i>	<i>100</i>

Source: Field study.

This study reveals that half of the new residents (50 percent) have constructed their houses for permanent settlement. A few resident only 12 percent have constructed their houses as a holiday resort. For lending as rented house and for any other purpose, 20 percent and 18 percent of the new residents have constructed their house respectively. Among the other purposes some residents use their houses for making of film (shooting), for producing saplings of flowers and fruits e.g. ‘Arambag Nursery.

Experiences of the new settlers about the environment of Goalpara

A part of the study was directed towards the understanding of the experiences of the new settlers about the environment of this area. This study was conducted upon interviewing 50 new residents selected randomly in Goalpara village using a questionnaire. The report of the study has been represented in table 7.

Table 6, Experience of the new settlers about the environment of this area

<i>Experience</i>	<i>Nos said Yes</i>	<i>%</i>
Staying here very happily	6	12
Staying here allright	31	62
Not a very nice place as expected	13	26
<i>Total nos. interviewed</i>	<i>50</i>	<i>100</i>

Source: Field study.

This reveals that majority of the new residents (62 percent) replied that they have been staying here all right. Only a few residents (12 percent) replied that they living in Goalpara very happily. 26 percent of the residents expressed their negative view about the environment as their expectation has failed. Hence it can be stated that the environment of Goalpara is suitable for building construction for residing.

Experiences of the new residents about the local people of Goalpara

A particular objective of this study was conducted to know the experiences of the new residents about the old residents by interviewing 50 persons. The outcomes of the interview have been displayed in the table 8.

Table 7, Experience of the new settlers about the local people

<i>Experience</i>	<i>Nos said Yes</i>	<i>%</i>
Very nice and friendly	27	54
Just alright	10	20
Not very nice and friendly	3	6
No idea	10	20
<i>Total no of persons interviewed</i>	<i>50</i>	<i>100</i>

Source: Field survey.

This reveals that larger portion of new residents (54 percent) express their experiences about the old residents as very nice and friendly and a very little number of people (only 6 percent) expressed their negative experience in this regard. To the 20 percent of the new residents the local people are just all right. To the 20 percent new residents do not have any ideas about the old settlers and this is due to the lack of interaction between them. However, it can be said that there exist a good relationship between the old and new residents of Goalpara village.

Major Problems faced by the new settlers

Each and every place is supposed to have its own environmental problems that affect the residents at different levels. Goalpara is a small village. It is obvious that service facilities offered by this small village may not be adequate for the new settlers as most of them have come from the urban areas. A survey was carried out to reveal the major problems often

faced by the new residents of Goalpara village. 50 new residents were communicated and they express their own feelings about the problems they have faced here.

Table 8, Major problems faced by the new settlers

<i>Types of problems</i>	<i>Nos said Yes</i>	<i>%</i>
Problems of communication	33	66
Problems of market and other facilities	11	22
Other problems	6	12
Do not know	0	0
<i>Total nos interviewed</i>	<i>50</i>	<i>100</i>

Source: Field study.

From this study, it is evident that the major problems faced by most of the new settlers (66 percent) are the problems of communication. 22 percent residents face the problems of market and other facilities. And there are few other problems which affect 12 percent of the new settlers.

The result can be interpreted in the manner that a significantly large proportion of the new residents face the problems of communication. It is due to the less availability of bus transport. Only 3 or 4 buses pass through this village per day. Besides, the new residents constructed their houses mostly on the agricultural field where previously there was no road link and the construction of road (may be metalled or unmetalled) is quite difficult in comparison to the house construction. In this village, there is no permanent vegetable market, only a few mobile vegetable sellers sell the vegetables. And the main market of Bolpur town is quite far from here, so 22 percent residents face the problems of market and other facilities.

Desire of the new settlers for staying in this place

Another aspect of the study was to know the desire of the new settlers about staying in this place. This study was conducted upon interviewing 50 residents selected in random process in Goalpara village. The report of this study has been represented in the table 10.

Table 9, Desire of the new settlers for staying in this place

<i>Desire</i>	<i>Nos said Yes</i>	<i>%</i>
Want to stay here	30	60
Want to leave this place	6	12
Not decided yet	14	28
<i>Total nos interviewed</i>	<i>50</i>	<i>100</i>

Source: Field study.

The outcome of this study reveals that most of the new residents (60 percent) want to stay here. And only 12 percent of them want to leave this place. Some of the residents' have not decided yet whether they will leave the place or reside here. It can be said that most of the people are living here beautifully. But some people who want to leave this place because this place is not matched with their expectation or they want to go such a place which will be much better than it.

Perceptions of the old settlers about the environmental changes

As the profile of Goalpara village is changing significantly in recent years because of the new residents as they are occupying agricultural land and constructing their houses upon them. As a result the densities of the houses as well as the people are increasing gradually. And due to excess concretization, the rural area is gradually converted into urban area. So, the environmental change has occurred to some extent. And these changes have certain impact upon the local people to live in the area throughout the generation. They interacted with the new settlers regularly and develop their perception on the basis of their observation on the new residents. The following aspects were considered under this part of the study.

- Notions of the old settlers of Goalpara about the environmental change in recent years.
- Notions of the old settlers of Goalpara about the new settlers.
- Experience about the developmental projects taken up in this area.

Notions of the old settlers of Goalpara about the environmental change in recent years

The old residents have different perception about the environmental change in recent years as they have been living in this area throughout the generations. A survey was conducted to draw out the notions of the old settlers of Goalpara about the environmental changes in recent years interviewing 50 old residents selected randomly on the basis of organized pattern of questionnaire. The report of the study has been represented in table 11.

Table 10, Notions of the old settlers of Goalpara about the environmental change in recent years

<i>Notions</i>	<i>Nos said Yes</i>	<i>%</i>
The change is ideal as expected	37	74
Not desirable	6	12
No idea	7	14
Total number of persons interviewed	50	100

Source: Field study.

It is evident from the study report that the maximum old settlers (74 percent) supported the environmental change and they expressed their views as the change is ideal as expected. To the 12 percent people, the change is not desirable. And 14 percent people do not have any idea about the changes. This may be due to the lack of knowledge about the environment or may be due to self-centeredness and do not have any time to feel their environment. There is little percentage of residents who are not satisfied with this change. They dream to see their environment with the age-old ideas.

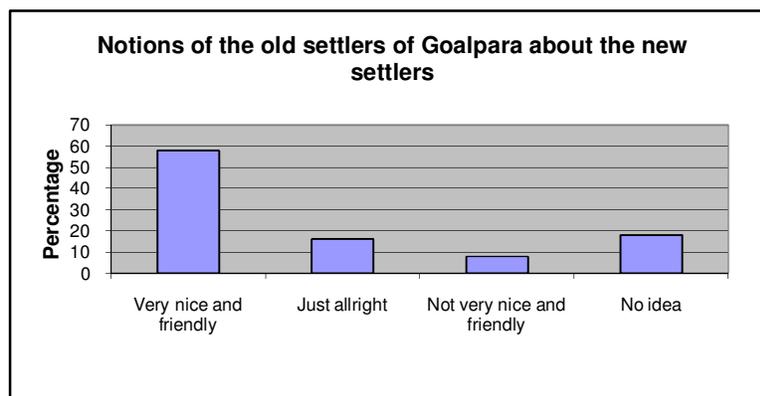
Notions of the old settlers of Goalpara about the new settlers

A further dimension of this research is to understand the notions of the old residents towards the new settlers. For this purpose, 50 old settlers were selected randomly from Goalpara area and they were interviewed systematically in this regard on the basis of an organized pattern of questionnaire. The result of this study has been represented in the table 12.

Table 11, Notions of the old settlers towards the new settlers

<i>Notions</i>	<i>Nos said Yes</i>	<i>%</i>
Very nice and friendly	29	58
Just alright	8	16
Not very nice and friendly	4	8
No idea	9	18
Total nos interviewed	50	100

Source: Field study.



The outcome of the study reveals that a large proportion of the old habitants (58 percent) expressed their notions towards the new settler as very nice and friendly. To the 16 percent habitants, the new settlers are just all right. A very little number of old settlers expressed their negative view towards the new settlers by saying that they are not very nice and friendly. 18 percent of the old residents do not have any ideas about the new settlers. This may be due to the lack of interaction between them or due to the lack of knowledge about the relationship.

Experience about the developmental projects taken up in this area

A few developmental projects have taken up in Goalpara village by Ruppur Panchayat, Santiniketan – Sriniketan Development Authority (S.S.D.A) and By the State govt. to develop this area significantly. Such as, State government has launched a developmental project for the welfare of the female. From here, the female persons can get computer education, training for handicraft etc. In this purpose, an Institution has been constructed which is known as ‘Bolpur – Sriniketan Block Mahila Mahasangha’ (organization for female). S.S.D.A initiated a housing development project in 2005-06 which is known as ‘Kheya’. In addition Rupper Gram Panshayet and Central Govt. have different project on fishery, nursery, 100 days work etc. for Goalpara village. The people of Goalpara village have different perceptions about the nature of the developmental project. In this regard, a particular objective of this study has conducted to know the experiences of the people about the developmental project taken up in Goalpara village. For that purpose, 50 peoples are selected randomly but interviewed systematically on the basis of organized pattern of questionnaire. The result has been represented in the table 13.

Table 12, Experience about the developmental projects taken up in this area

<i>Experience</i>	<i>Nos said Yes</i>	<i>%</i>
Very helpful	32	64
Moderately O.K.	7	14
Not very helpful	3	6
No idea	8	16
<i>Total nos interviewed</i>	<i>50</i>	<i>100</i>

Source: Field study.

From this study it is evident that as many as 64 percent people have expressed their positive view about the developmental project. To them, the projects are very helpful and a very little percentage of people (Only 6 percent) replied negatively. According to them, the projects are not very helpful. Towards 14 percent of the people, the projects are moderate. And 16 percent people do not have any idea about the developmental project taken up in this area. This is due their lack of knowledge about their development or careless mentality about the development. So, it can be said that the projects which have been taken up in this area have helped to develop this area to some extent.

CONCLUDING REMARKS

General Assessment

After conducting this field work as a researcher of Geography, the author thinks there is some good impact of development and some bad impact of development upon Goalpara village. The recent environmental changes which have occurred around the village, among them some changes are acceptable but some changes are not expectable. In this regard if

we generally assess the impact of development and pattern of environment of changes we will find the following facts:-

Positive change

- The male-female ratio of Goalpara village has increased significantly. In 1991 it was 1000: 1982 but in 2001 it reached to 1000: 1015 and the trend of increasing is continuing. It is a very good effect of development.
- The literacy rate increases considerably. In 1991, general literacy rate was 60 percent and male literacy and female literacy was 65 percent and 55 percent respectively. But in 2001, the general literacy increased to 70 percent. Then, the male and female literacy was 75 percent and 65 percent respectively. This emerging rate of literacy is continuing still now and now more than 80 percent people are literate in Goalpara village. It is another good impact of development while female literacy increases side by side of male literacy.
- The changing pattern of economy of the people is also another good impact of development upon Goalpara village. In 1991, 83 percent working population were engaged in agricultural sector but in 2001, 44 percent people were engaged in agricultural sector. Now, this trend of decreasing agricultural worker is continuing. And the workers mostly engage themselves in service sector and other works. As a result, the economy of the people is developing significantly.
- Standard of living of the people has witnessed change in Goalpara village. Life expectancy is increased among them. The health quality of the people has also developed. Now they can get proper medical facilities. So, they do not suffer from diseases in recent time. The transport and communication system have also developed. In short, the socio-economic conditions of the people have developed to a large extent.

Negative change

- The new settlers have constructed their houses mainly on the agricultural land. As a result, although the settlement pattern has developed, but this is not a good impact of development.
- As the amount of agricultural land resources has gradually reduced, therefore the agricultural production will also reduce significantly which will make problem for the people who are totally engaged in agricultural sector.
- The natural environment of Goalpara village has jeopardized due to the bad effect of two brick factory. Although existence of brick factory indicates the development of an area but in this case, a huge amount of smokes comes out from the chimney and disturbs the freshness of the atmosphere and the land use pattern of nearby areas has got changes to some extent. This type of change is not desirable.

Suggestions for Environmental Development

On the basis of indepth research through field study upon Goalpara village, it can be said that the socio-economic environment of Goalpara village has developed significantly. There is not much backwardness in the socio-economic environment of the village. But the geographical environment of the village has been affected to some extent. In these circumstances, to reconcile the environmental problems, the following suggestions may be considered.

- Social forestry can be developed in the newly built up area to reengage the marginal workers previously who were totally depended upon those agricultural fields so that they can engage themselves in the social forestry from where they can earn something. Otherwise, they will be deprived and victimized by this development process.
- As the amount of agricultural land as well as agricultural production gradually has got reduced, so, there should be developed multiple cropping pattern, so that from one piece of land, more than two crops will be produced per year.
- To mitigate the bad impact of brick factory in order to refresh the atmospheric condition and to reduce the soil erosion, afforestation programme should be launched around the brick factory as well as within village periphery.
- To protect the rural scenic beauty, huge concretization should be checked in this area other wise the rural environment will be converted into sub-urban or urban one.
- To attract the people for enjoying the scenic beauty in this rural area, a beautiful park can be prepared here and other recreational facilities can be established here.
- To protect the originality of the environment and to grow the consciousness among the local people about the environment, mass campaign should be organized.

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