

Socio-economic impact of industrial development on rural families

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ABSTRACT: Industrialization plays a significant role in the process of economic development. It helps in employment generation by generating gainful employment opportunities for the unemployed and under-employed labourers. It makes people dynamic, hard-working, mobile, skillful, efficient, and punctual. It brings a change in the way-of life of the people by improving their standard of living. Industrialization has helped in the development of agriculture by introducing improved seeds, fertilizers, farm-implements, storage and transportation facilities. The industrial revolution also has negative impact on environment like air pollution, green house gas emission, global warming, water shortages, water contamination and deforestation which are becoming threat to the life of human being. Present study was conducted to know the impact of industrial revolution in the life of rural people.

Key words: Air pollution, climate change, industrialization, water pollution

Industrialization is the process of social and economic change that transforms a society from agrarian to an industrial one. It plays a significant role in the process of economic development. Industrialization helps in employment generation and absorbing the surplus labour. A strong industrial base is required for generating gainful employment opportunities for the unemployed and under-employed labourers in the agricultural sectors. Rural industrialization becomes all the more important in view of the fact that the percentage share of agriculture to gross domestic production and the percentage of population engaged in this sector have been declining. Because of saturation in the agricultural sector, there is no scope to accommodate additional manpower therein and it has further accentuated the problem of unemployment. Therefore, diversion of manpower becomes imperative from agricultural sector to industry and service sectors. Since employment opportunities in the service sector are limited, the development of industrial sector, especially in rural segment, is the only remedy (Sunder and Srinivasan, 2009). Industrialisation provides the necessary elements for strengthening the economy. It makes possible the production of assets like roads, railways, dams, communication technology etc. It is through the industrialization that the requirements for the development of agriculture like improved seeds, fertilizers, farm-implements, storage and transportation facilities etc. can be provided. This results in building an environment suitable for rapid growth and development of the economy.

Industrialization brings a change in the socio-cultural environment of the economy. It makes people dynamic, hard-working, mobile, skillful, efficient and punctual. It brings a change in the way-of life of the people. It also provides security to the economy by making it self-dependent. The Industrial Revolution is being responsible for the higher standard of living. With the Industrial Revolution the social structure of society changes. Before the industrial revolution most people lived in villages, working either in agriculture or as skilled craftsmen. They used to live and work together as a unit doing everything manually. Industrial revolution required them to move to cities in search of new jobs. They have to work for longer hours. The higher living expenses due to urbanization added their problems. As a result women and children also work making up 75% of early workers. Families are forced to do this since they desperately need money. However, the social changes that took place were not all negative. Most classes eventually benefited in some or the other way from the profits that were being made by the industries.

Industrialization transforms population from being predominantly rural to predominantly urban. With the cost of living in urban areas so high it creates a number of problems mainly in the area of living conditions, working conditions and the social structure. Small houses clustered together are poorly built and incredibly crowded. Whole families live together in small space under poor and unhygienic conditions. There is lack of fresh air, water and sanitary conditions often resulting in

outbreak of a number of diseases like tuberculosis, typhoid, jaundice, cholera and diarrhoea. Added to this is the problem of alcoholism, drug abuse, crime and prostitution which are some of the serious outcomes of industrialization.

The industrial revolution has a great impact on environment. Air pollution, green house gases emission, climatic disaster, water contamination and deforestation are becoming serious threats to the life of human being. There are manifold consequences of industrial pollution on the ecological balance of the atmosphere. Global warming is one of the serious consequences of industrial pollution, causing an increase of the water levels in seas and rivers, thereby increasing the chances of flood. The emissions from various industries contain large amounts of gases often resulting in air pollution and various health hazards. Dumping of industrial wastes into water sources often result in polluting the water, causing the outbreak of a number of water born diseases. However, limited studies have been conducted to know the impact of industrial development in the life of rural people. Das and Kumar (2011) also indicated that there are limited studies conducted whether clustering of small scale enterprises has a direct and explicit impact on wellbeing condition of the poor. Keeping in mind the above scenario present study was conducted to know the socio-economic impact of industrialization on the life of rural people.

MATERIALS AND METHODS

The study was conducted in Udham Singh Nagar district of Uttarakhand state. Integrated Industrial Estate (IIE)-Pantnagar was established in 2005 in Udham Singh Nagar district by State Industrial Development Corporation of Uttarakhand Limited (SIDCUL). It has total cover area of 1,310 hectares with around a number of 480 industries, mainly food production industries, automobiles manufacturing units, plywood industries, electroplating industries and other allied industries. To study the impact of industrial development on socio-economic life of rural people of the surrounding area of Integrated Industrial Estate, a cross sectional study of farm families was conducted. Data was collected from Rudarpur block of Udham Singh Nagar district where the Integrated Industrial Estate is located. From Rudarpur block eight villages and from each village 30 households were selected for the purpose of study. Thus the total sample comprised of 240 households from Rudarpur block of Udham Singh Nagar district of Uttarakhand. PRA technique with semi-structured interview schedule was used for data collection.

RESULTS AND DISCUSSION

Profile of the farm families: Profile includes a number of attributes like type of family, size of family, education level, occupation, landholding and type of house.

Table 1: Profile of the farm families

		N=240	
S.No.		frequency	percentage
1.	Family Structure		
	Type of family		
	nuclear	164	68.33
	joint	76	31.67
	Size of family		
	small (0-4 members)	96	40.00
	medium (5-8 members)	123	51.25
	large (above 8 members)	21	8.75
2.	Education of the family members		
	illiterate	276	21.97
	primary	273	21.73
	middle	192	15.29
	high school	226	17.99
	intermediate	166	13.22
	graduate	74	5.89
	post graduate	49	3.90
3.	Family occupation		
	Main occupation		
	farming	96	40.00
	service	60	25.00

	business	27	11.25
	labour	57	23.75
	Subsidiary occupation		
	farming	40	16.67
	service	131	54.58
	business	6	2.50
	labour	56	23.33
	Nil	7	2.92
4.	Landholding		
	landless (no land)	132	55.00
	small (0-5 acres)	68	28.33
	medium (5-10 acres)	24	10.00
	large (above 10 acres)	16	6.67
5.	Type of house		
	katcha	42	17.50
	mixed	111	46.25
	pucca	78	32.50
	on rent	9	3.75

Family structure was studied as type of family and size of family. Majority of the families i.e. 68.33 per cent were nuclear and 31.67 per cent families were joint families. Size of the family was studied as small family (0-4 members), medium family (5-8 members) and large (above 8 members). Almost 50.00 per cent of the families had medium size i.e. 5-8 members, 40.00 per cent had small size (less than 4 members). Only 8.75 per cent families were large having more than 8 members in the family.

In order to study the education level, education of all the members of the family was studied. Almost 22.00 per cent respondents were illiterate as well as primary educated, 17.99 per cent had studied upto high school, 15.29 per cent were educated upto middle and 13.22 per cent were intermediate. Only a few persons were graduate (5.89%) or post graduate (3.90%).

Occupation of the family was studied as main occupation and subsidiary occupation. Forty per cent families had farming as the main occupation, 25.00 per cent were in service, 23.75 per cent were labourers and 11.25 per cent had business as the main occupation of the family. Subsidiary occupation reveals that more than half of the families (54.58%) had service as their subsidiary

occupation, 23.33 per cent were labour and 16.67 per cent had farming as the subsidiary occupation of the family.

Landholding was studied as large (above 10 acres), medium (5-10 acres), small (0-5 acres) and landless. Fifty five per cent households studied were landless, 28.33 per cent had small landholding, 10.00 per cent had medium and 6.67 per cent had large land holding.

Regarding type of house findings reveals that 46.25 per cent respondents had mixed houses, 32.50 per cent had pucca house and 17.50 per cent families possessed katcha house. A few respondents (3.75%) were on rent.

Opinion of the residents regarding factors responsible for good quality of life

Opinion of the respondents was asked regarding factors responsible for good quality of life. Almost 64.00 per cent respondents were of the opinion that clean air, water and good job are required for good quality of life, 17.50 per cent respondents were of the opinion that good job is essential to lead good life and 14.17 per cent were of the opinion that clean air, clean water, good job, security and safety of the people are required to lead good life.

Table 2: Factors responsible for good quality of life

N=240

S.No.	Factor	frequency	percentage
1.	clean air and water	7	2.92
2.	good job	42	17.50
3.	clean air, water and good job	152	63.33
4.	clean air, water, good job, security & safety	34	14.17
5.	clean air, water, security & safety	3	1.25
6.	good job, security & safety	2	0.83

Opinion of the people was also asked to know whether the quality of life has improved or worsened due to the establishment of the industries and how it has improved or worsened.

Fifty five (55.00) per cent respondents were of the opinion that life has improved as well as worsened due to the establishment of industries in the nearby area, 23.75 per cent were of the opinion that the life had been improved whereas 16.25 per cent respondents said that the life had been worsened. A few respondents (3.75 %) were of the opinion that it had no effect on their life. Reason for improvement in quality of life as reported by the respondents were that with the establishment of industries their family members had availed jobs which helped them in improving their standard of living. Regarding the worsening of quality of life respondents reported that development of industries in the nearby area had resulted in air and water pollution thereby decreasing the crop productivity and increasing the outbreak of a number of diseases like typhoid, cholera, jaundice and skin diseases in humans and animals. It had also increased the number of accidents and crime rate.

Positive impact of the industries

Jobs in industries: Table 4 reveals the number of men and women getting job in the industries. Finding

reveals that in 48.75 per cent families one male of the family got job in nearby industries, in 8.12 per cent families two males per family had availed job and in 1.12 per cent families three male members of the household had availed jobs in the industries.

Regarding the jobs of female, in 13.75 per cent families one female member of the household had availed job due to the establishment of industries.

Findings further revealed that in more than half of the households (57.87%) one member of each family got job, in 13.12 per cent households two members of family had availed job and in 1.25 per cent families three members of family had availed job due to the establishment of industries in nearby area. It can be said that industrialization had increased the job opportunities. Table 5 reveals that 53.75 per cent respondents had availed temporary jobs and 12.50 per cent had availed permanent jobs in the industries.

Changes in the income level of the family:

Table 6 shows the findings regarding change in income level of the families due to the establishment of industries. Almost half of the respondents (48.75 %)

Table 3: Opinion of the respondents about improvement or worsening of the life due to industrialization N=240

S.No.	Factor	frequency	percentage
1.	life had improved	57	23.75
2.	life had worsened	39	16.25
3.	improved as well as worsened	132	55.00
4.	no change	12	5.00

Table 4: Number of members getting job in industries N=240

S.No.	Number of member	Male (%)	Female (%)	Total (%)
1.	nil	41.88	86.25	33.75
2.	one	48.75	13.75	51.87
3.	two	8.12	-	13.12
4.	three	1.25	-	1.25

Table 5: Type of jobs offered N=240

S.No.		frequency	percentage
1.	permanent	30	12.50
2.	temporary	129	53.75
3.	NA	81	33.75

Table 6: Change in the income level of the family N=240

S.No.		frequency	percentage
1.	yes	117	48.75
2.	little/no effect	42	17.50
3.	NA	81	33.75

revealed that their income level had changed due to the job being availed in the industries whereas 17.50 per cent revealed that there was little or almost no effect on the income level of the family as their salary was quite less.

Facilities provided by the industries:

Few industries provide the facilities like uniform to the workers, food (breakfast, lunch or evening snacks) and transportation facilities.

Table 7 reveals that almost one third respondents (32.07 %) were getting uniform as well as food from the industries where they were working, 15.09 per cent were getting only uniform, 9.43 per cent were getting transportation facilities and 6.92 per cent were getting only food. Rest 36.79 per cent respondents were not getting any of these facilities.

Change in price of land: Respondents were asked if there is any change in the price of their land after the establishment of industries, 95.42 per cent respondents revealed that there was increase in the price of land almost 5 to 10 times. Respondents were further asked if they had sold their land in the last five years or not.

Table 7: Facilities provided by the industries

N=159

S.No.	Facilities	frequency	percentage
1.	uniform	24	15.09
2.	food	11	6.92
3.	uniform and food	51	32.07
4.	transportation	15	9.43
5.	not getting any facility	58	36.49

Table 8: Change in price of land

N=240

S.No.		frequency	percentage
1.	yes	229	95.42
2.	don't know	2	0.83
3.	no idea	9	3.75

Table 9: Number of people that sold the land in last five years

N=240

S.No.		frequency	percentage
1.	1 acre	18	7.50
2.	1/2 acre	3	1.25
3.	not sold	87	36.25
4.	NA	132	55.00

Table 10: Change in the climate of area due to industrialization

N=240

S.No.	Type of change	frequency	percentage
1.	air pollution increased	215	89.58
2.	water pollution increased	192	80.00
3.	no change	-	-

Table 9 reveals that out of 45 per cent respondents who had land, 36.25 per cent respondents had not sold their land in the last five years, 7.50 per cent respondents had sold 1 acre of land at a very good price (Rs.2,50,000-3,00,000/ acre) and 1.25 per cent respondents had sold ½ acre of land. This had helped them in improving their standard of living. They now had big, pucca, multi storied houses along with two wheelers, four wheelers etc. Fifty five per cent respondents were landless.

Negative consequences of the industries

Change in climate due to industrialization: Regarding change in the climate of the area due to the establishment of industries, 89.58 per cent respondents revealed that there was increase in the air pollution (table 10). The smoke of the factory and other pollutants coming out had resulted in air pollution.

Eighty per cent respondents revealed that water had become polluted due to which human beings and animals were suffering from a number of diseases. The outbreak of cholera, typhoid and skin diseases had increased. Along with this water pollution had resulted in decrease in crop productivity.

Change in crop production: Regarding the change in crop production due to the impact of industries, 66.25 per cent respondents revealed that crop production had decreased, 18.75 per cent respondents revealed that there was no change in the crop production and 15.00 per cent respondents had no idea regarding the change in crop production.

Regarding the reasons for decrease in crop production, 56.25 per cent respondents revealed that crop production had decreased due to air/water pollution as well as shortage of labour, 28.12 per cent respondents revealed that establishment of industries had caused air/water pollution which was the main reason for decrease in crop production, 13.12 per cent respondents revealed that shortage of labours was the reason for decrease in production as people were liking to work in the industries for the sure payment in the end of the month.

The industries were disposing the industrial waste in the nearby source of water which was contaminating the water. This water was used for the irrigation purpose thus damaging the crops. Further due to the establishment of industries, more and more people who were earlier working as labourers in the farms were now getting job in the industries, thus there was shortage of labourers to

work in the farm. The persons/labourers that were available were charging more money, thus the labour was getting costlier. This was indirectly affecting the crop production. Those farmers that were previously producing crop were now selling their land or giving their land in theka(contract) as they were not getting profit in farming as the production was getting costlier and there was little or no profit at the end. More and more people were selling their land, depositing the money in the bank and with its interest living a peaceful life.

Consequences of industrialization on social life: Table 13 depicts the negative consequences of industrialization on social life of the villagers. Almost 82.50 per cent respondents revealed that with the establishment of industries there was increase in the number of accidents, 77.50 per cent respondents reported that there was increase in crime rate, 62.08 per cent said that it had resulted in indulging men, women and youth in bad habits (alcoholism, drug abuse and prostitution), 57.91 per cent revealed that there was increase in the population of the village as people of outside area who were working in the industries started residing in the village.

Almost one third people (32.91%-38.33%) also revealed that establishment of industries had resulted in growth of slum (32.91%), change in the structure of

Table 11: Change in the crop production due to industry N=240

S.No.		frequency	percentage
1.	decrease in production	159	66.25
2.	no change	45	18.75
3.	no idea	36	15.00

Table 12: Reasons for decrease in crop production N=160

S.No.		frequency	percentage
1.	shortage of labour	21	13.12
2.	sale of land to industries	4	2.50
3.	air pollution/water pollution	45	28.12
4.	air/water pollution as well as shortage of labour	90	56.25

Table 13: Consequences of industrialization on social life N=240

S.No.	Consequence	frequency	percentage
1.	increase in population of village	139	57.91
2.	people from outside started residing in village	135	56.25
3.	growth of slum	79	32.91
4.	indulging of men , women and youth in bad habits	149	62.08
5.	change in the structure of family	91	37.92
6.	deforestation/soil erosion	92	38.33
7.	increase in crime rate	186	77.50
8.	increase in number of accidents	198	82.50

Table 14: Type of problems faced by the workers

N=159

S.No.	Problems	frequency	percentage
1.	under payment	39	24.53
2.	under payment and over work	56	35.22
3.	over work, under payment and lack of hygiene & sanitation	9	5.66
4.	under payment, fatigue & illness, lack of hygiene & sanitation	7	4.40
5	no problem	48	30.19

family from joint to nuclear one (37.92%) and deforestation/soil erosion (38.33%) as people had sold their soil during the establishment of industries for land filling. Further a number of trees were cutted out during the construction of industries.

Problems faced by the workers: Table 14 depicts the type of problems faced by the workers in the industries. Almost one third respondents (35.22 %) revealed the problem of over work as well as under payment, 24.53 per cent faced the problem of under payment, 5.66 per cent faced the problems of over work, under payment, lack of hygiene and sanitation whereas 30.19 per cent respondents did not face any problem.

CONCLUSION

The study reveals that industrial development had positive as well as negative consequence in the life of rural people. On one hand it resulted in providing gainful employment to unemployed youth, thereby increasing

their income and improving their standard of living. On the other hand it resulted in increasing the air and water pollution, thereby decreasing the crop production, forcing people to give their land on theka (contract) or sale of land to the property dealers to earn the revenue. It also had negative consequence on the social life of the people as there was increase in the number of accident, increase in the crime rate, indulging of men, women and youth into bad habits and change in the structure of family from joint to nuclear one.

REFERENCES

- Das R. and Das A.K. (2011). Industrial cluster: An approach for rural development in north east India. *International Journal of Trade, Economics and Finance*. 2 (2):161-165.
- Sunder K. and Srinivasan T. (2009). Rural Industrialization: Challenges and Prepositions. *Journal of Social Science*, 20 (1):23-29.

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