

Reshaping Rural Sphere, Village Pachgaon: An Impact of Amity Education Valley

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Abstract: *The social and economic reconstruction and improvement in a community can be created through many drivers such as market manipulation, closing or opening of a factory, setting up of a dynamic institution etc. Associated socio-economic effects can be wide-ranging in size, from local effects on a small community, which is rural in nature to a larger society in long term perspective. The developmental transformation on rural people and entrepreneurs in the village is quite evident in the form of entrepreneurs' development, skill development, and rise in level of income and rental income as well as subsequent impact on standard of living.*

Keywords: socio-economic, transformation, development, entrepreneurs

1. Introduction

Village Pachgaon in the vicinity of Amity Education Valley has experienced a remarkable transformation in its development due to the set-up of this educational institute. Amity campus which is situated approximately one and half kilometre from the village has made a substantial contribution in improving rural livelihoods in the village. Earlier most of the rural people depend on agriculture for their livelihoods. Directly or indirectly this institution helped people to build assets and develop their skills so that they can access new opportunities for income generation and employment other than agriculture.

2. Location and Linkages of Village Pachgaon

Pachgaon is an amalgamation of five villages, in district Gurgaon, Tehsil Manesar, Haryana State. The five villages are Kukrola (largest of the five), Fazalwas, Chandla Dungerwas, Gwaliar, and Fukkhrapur. They are normally referred as Pachgaon by locals, although they are autonomous and deliver their own Panchayats. Pachgaon is not cited in Government documents. It is 35km from New Delhi on NH-8.

Kundli-Manesar-Palwal expressway passes through Pachgaon. The stretch of Pachgaon to Palwal has 15 flyovers and 75 minor structures like culverts, etc. As the expressway passes through Pachgaon and not through Manesar, the villagers wanted to change the name of expressway to Kundli-Pachgaon-Palwal Expressway.

Villagers protested and blocked NH-8. The HSIIDC is acquiring land for the second phase development of Pachgaon at 30 lakhs per acre. Villagers demanded for the market rate of one crore as compensation.

The connectivity of Pachgaon with Gurgaon and New Delhi is shown in figure 1, with the help of Google Map.

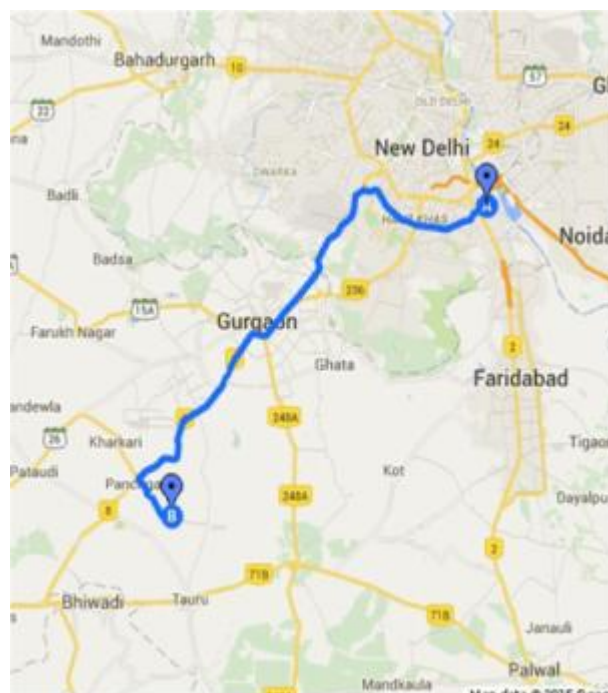


Figure 1: Connectivity of Pachgaon with New Delhi
Source: Google Map, 2016

The details of Pachgaon, including total area, total population, etc., have been tabulated in Table 1.

Table 1: Details of Village Pachgaon

S No	Pachgaon	Population
1.	Total Area	1622 ha.
2.	Total Population	8629
3.	Population Density	5 ppha
4.	Average Sex Ratio	822F/1000M
5.	Average Literacy Rate	77% (M – 87% and F – 66%)
6.	Occupation Structure	Primary Sec. – 76% Secondary Sec. – 0% Tertiary Sector – 24%
7.	Household size	5-7 persons per house
8.	Sanitation	100% of households have private toilets. There is one public toilet near the market area
9.	No. of Water Bodies	7

3. Land Use/Land Cover of Village Pachgaon

The total area covered by Village Pachgaon is 1622 hectares. The area is distributed under agricultural land, commercial land, habitable area, hills, Amity University.



Figure 2: Land Use map of Pachgaon

Source: Satellite Image, Google Earth, 2015

4. Economy of the Village, Pachgaon

a) Occupation Structure

The participation of villagers in agriculture reduced from 76% in 1971 to 72% in 2011. Villagers started adopting business, only 2% people were involved in business, as per census 1971, but this percentage increased to 14% in five decades i.e. by 2011. Percentage variation in involvement in labour work and manufacturing is very less. People coming into Government Jobs rose from 8% in 1971 to 10% in 2011.

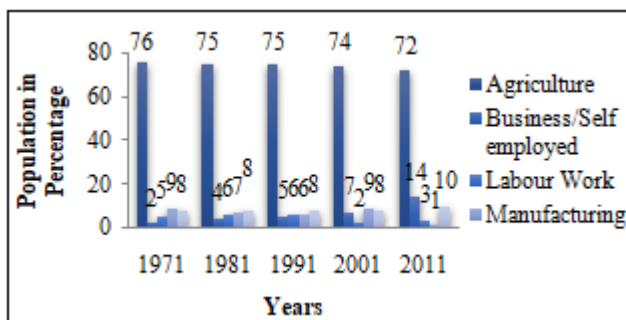


Figure 3: Occupation structure of Pachgaon

Source: Census Data 1971 – 2011

b) Type of Rural Retail

The market of Pachgaon fulfils the daily need of the villagers there are grocery shops, vegetable shops, small departmental stores, tailors, electrical appliances as well as repair shops, mechanics, furniture shops, etc.



Figure 4: Commercial Lane in Pachgaon

Source: Primary Source

c) Agriculture and Allied Activities

The net sown area was 1381 hectares in 1971, which came down to 1082 hectares in 2011, which clearly indicates the participation of people in agriculture also reduced. At that place was no cultivable waste area in 1971 but reached to the maximum area of 256 hectares in 1991. By 2011 census data the total cultivable waste area reduced to 136 hectares. The area not available for cultivation is 241 in 1971, which gradually increased to 404 hectares over a period of 50 years, i.e. by 2011.

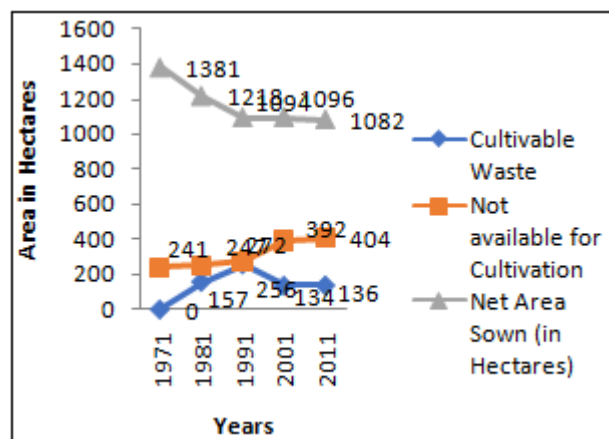


Figure 1: Agriculture Related Data

Source: Census Data 1971 – 2011

d) Livestock Data

The intensity of a buffalo is 1887 in 2002, which increased by 5.19% in 2007. The growth in percentage came up with 6.34% in 2012. The percentage growth of cows increased by 12.06% from 2002 to 2007. The percentage further increased to 26.25%, as per census data 2012. The figure of sheep increased by 262.96% in 2007, i.e. 27 to 98. The figure of sheep came down in 2012. The number of goats came up from 2002 to 2007, but came down in 2012. In that location was no horses and donkeys till 2007, but according to livestock data 2012, the number was 3 and 11 respectively. The percentage growth in the Mule is 30% in last ten years. There were 13 camels in 2002 but it recorded none in 2012. Dogs were 155 in number in 2002, which dropped down to 61 in number in 2007. The percentage rose up to 42.62% in 2012. The percentage growth in Pigs is 90.7% from 2002 to 2007. It came down to 40.24% in 2012.

One of the significant elements of an agro-ecosystem is Livestock. Livestock provide critical energy input to the croplands required for ploughing, threshing and other farm operations. Animal dung has essential nutrients that are needed for the fertility of soil and crops, in the course of organic manure. Live stock data such as animal population helps in evaluating the biogas potential of a village.

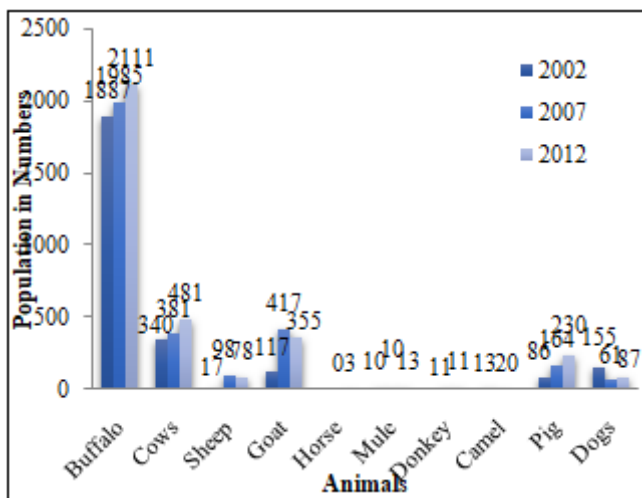


Figure 6: Livestock Data of Pachgaon
Source: Livestock Data 2002, 2007, 2012

One of the significant elements of an agro-

Table 2: Average dung yield

S No.	Living Beings	Quantity of Dung / Night Soil produced (kg/day)
1.	Cow	10.0
2.	Buffalo	15.0
3.	Goat	1.0
4.	Mule	6.0
5.	Pigs	1.0
6.	Human beings	0.4

Source: SGP India Report, n.d.

The total dung produced by the cattle in a day, has been calculated in the table 3 below

Table 3: Total Dung produced (kg/day)

S No.	Animals	Projected Population (Year 2032)	Quantity of Dung produced (kg/day)	Total Dung produced in a day (kg)
1	Buffalo	2111	2111*15	31665
2	Cow	481	481*10	4810
3	Goat	335	335*1	335
4	Mule	13	13*6	78
5	Pig	23	23*1	230
TOTAL				37118 kg

Source: Computed by the Researcher

For a plant size of 1m³, 25 kg of dung is called for. Consequently, if the Total Dung in a day is 37118 kg than the size of the works will be 1500m³.

1 kg cattle dung delivers 50 litres of biogas.

Consequently, Total Bio-gas generated in a day = 37118 * 50 = 18, 55, 900 litres or 1855.9 m³ gas.

4.1 Social Infrastructure

A) Education

Primary education or elementary education is typically the first stage of compulsory education, coming between early childhood education and secondary education. Elementary schools offer training from Class 1 to Class 8, in India. The kids in these classes generally lie in an age group between 6 to 15 age. The next stage after primary education is Middle School.



Figure 7: Educational Facilities

No. of Anganwadi:	5
Primary School:	9
Middle School:	5
High & Senior Secondary School:	6
Higher Education:	1



Figure 8: Amity University Haryana
Source: Author

Amity University, Gurgaon was established under the Haryana Act 10 of 2010 by the Government of Haryana. The University is spread over 110 acres, of lush green campus amidst Aravalli Hills in Manesar, Gurgaon. The campus provides multi-cultural environment with the students across India and more than 15 nations.

B) Health Facilities



Figure 9: Health Facility

Health facilities range from small clinics to large hospitals with emergency rooms and trauma centres.

A Health facility is any space where health care is offered. Health facilities range from small clinics to large hospitals with emergency rooms and trauma centres. The routine and quality of health facilities in a region is a coarse criterion of the prosperity of that neighbourhood and quality of liveliness. Health facilities may be possessed and operated by, non-profit organizations, governments and people.

On that point is no Primary Health Centre and Community Health Centre in Pachgaon. Villagers have to move to Manesar, which is 10km from the hamlet. On that point is one Primary Health Sub-Centre, one Maternity Clinic. There are seventeen dispensaries, out of which five are govt. and twelve private dispensaries. There is one Veterinary hospital also which takes care of cattle in the village.

C) Other Services

(I) Banks & ATMS

A bank is a financial institution that creates credit by lending money to a borrower. Banks are the most significant constituent of any country; its necessity is really significant. To attain development, there should be a good and developed financial system to sustain the economic status and society as well. In this modern time, the bank plays a lively function in the socioeconomic matters of the state.



Figure 10: Banking Facilities

Source: Author

There are Banks as well as ATMs within the village. They are:

- Syndicate Bank and ATM (Gwalior)
- HDFC Bank and ATM (Fazalwas)
- Sarva Haryana Gramin Bank
- IndusInd Bank And ATM (Fazalwas)
- Axis Bank ATM (Gwalior)

(II) Safety and Security

A Police Station is a building which serves to accommodate Police Officers and other members of staff. This building often accommodates offices, accommodation for personnel and vehicles, locker rooms, temporary holding cells and interrogation rooms. There is no Police Station or Police Chowki in either of the village.



Figure 11: Police Station

Source: Author

There are no designated community centres. Playground of Govt. School (Gurukul) is generally used as Community Centre.

(III) Community Centre

Community centres are public locations where members of a community gather for group actions, social backup, public information, festivals, and other functions. They may sometimes be open to the entire community or for any specialized group.



Figure 12: Community Centre

Source: Author

Amity Education Valley and its Impact in Pachgaon

- Amity is providing direct and indirect livelihood opportunities to Pachgaon's native and migrated people.
- Amity is providing employment to 150-200 individuals from these small towns for the works like cleaning, cooking, drivers and security safety devices etc.
- Many people are migrating from other places inside and outside the province, due to the employment opportunities offered by Amity.
- Some persons from Pachgaon have opened informal food points near the campus gate.
- There are approximately 10-20 vendors having fixed informal structures
- Village Auto drivers earn handsome money due to the pupils and staff of Amity.
- The retail marketplace is continuously increasing in Pachgaon due to the impact of Amity.



Figure 2: Informal Food Points near Amity University Gate
Source: Author

- There were only 50-60 shops in 2012 and today there are more than 100 shops in the hamlet.
- Amity is providing 50% fee concession to the scholars of the Gwalior village (where Amity is located).
- On that point is one negative impact of Amity on the life of villagers, due to the conflicts between villagers and the students of the university.
- On that point is one resort, Western Resort Country Club, in approximate proximity to Pachgaon; it is approachable through the village road of Pachgaon.

Proposed Development in Pachgaon

- Kundli - Manesar - Palwal (KMP) highway at Pachgaon has an interchange which will further perk up the growth of Pachgaon.
- Connectivity through Rapid metro is planned by 2021.
- The interstate bus terminal is also proposed here. Land has been acquired for that in 2010.
- A big Institutional Area is already standing, acquired near KMP interchange which can further promote the development of Pachgaon.
- Nearest interchange, Industrial area has been purposed by the State Govt. in Gurgaon, Manesar Urban Complex 2031.
- The HSIIDC is acquiring the domains for the second phase of IMT in Pachgaon at 30 lakhs per acre and villagers wants market rate of one crore as compensation.

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Author Profile



Dr. Pallavi Sharma, Professor, has an expertise of more than 11 years of teaching architecture and 7 years of field experience. I have worked in the position of a Lecturer for 2 years at Bundelkhand University, Jhansi, Uttar Pradesh and as an Assistant Professor for 2 years at Ansal University, Gurugram, followed by 1 year of service at Savera College of Architecture, Gurugram. Presently I am working in the capacity of a Professor at Amity School of Architecture and Planning, Amity University, Gurugram Haryana since 2012. As far as my professional experience is concerned, I have worked with Architects and Interior Designer Indore as well as with Neeraj Gupta Architects and Associates, Jhansi. My research interests are in Sustainable Development, Green Energy System, Building Materials and Design, Construction Technology. I have twenty eight publications in different National and International journals of repute.