

# Study Of Encroachment of Agricultural Land in Peri Urban Region of Nashik, Maharashtra

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**Abstract-** Urban encroachment into arable land along the peri-urban areas of Govardhan village Nashik, Maharashtra state, India prompted this investigation. The study is aimed at determining rate, pattern and effects of uncontrolled spatial expansion in the city. This study examines the trend in peri-urban communities in Govardhan village. A randomly selected village farmers group is provided with questionnaire. Primary data collected was analyzed using field survey while Geographical Information Systems (GIS) was used to capture vegetation and environmental changes. Findings revealed that 72% of interviewed farmers had a fear of losing their farmland to developmental projects as 16.1% of farmers had previously lost between 1 and 2 acres of farmland to Gangapur dam. Land modelling change detected that settlement/built-up-areas have increased and decreased of agricultural area to the loss of farmland/vegetative cover. The study discovered that such a degree of city encroachment and expansions into vegetative land cover is greatly hampering agricultural activities and farm production. Thus, the paper propose that the government and land administrators formulate and implement policies to encourage farmer to persuade their traditional occupation.

**Indexed Terms-** Agricultural land, vegetal land cover, Encroachment, housing and spatial expansion

## I. INTRODUCTION

Urbanization is growing rapidly and 56.2% of the global population will live urban region. Urban population in Asian countries which was around 17% in 1950 increased to 51.1% in 2020 (8). The current study is focused on the trends in urbanization and its effect on life style pattern in the peri urban region. A major problem of rapid urban growth is changing land

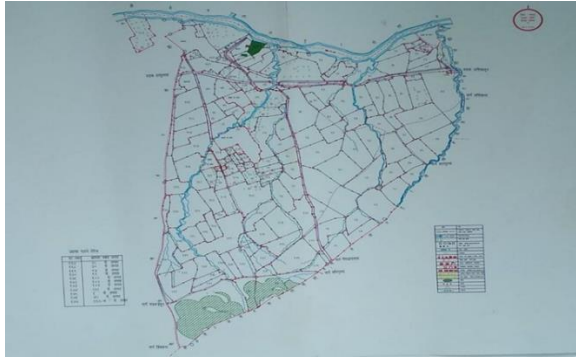
use patterns. The general characteristics of urban growth in most Asian countries, like India, is the extensive changes in land and building development at the cost of valuable agricultural land (9).

The pressure exerted by increase in population and rapid urbanization deprive other sectors of the needed land (2). Agricultural lands are most affected by rapid urbanization. Land uses for residential, industry and commercial, civic and culture has encompassed agricultural lands for space for their development (5). Hence farmers are losing arable land reducing agricultural productivity. Such situation has prevailed in the Nashik city and sub urban region. eGovardhanvillage (6). The consequence is low agricultural productivity, resulting in low standard of living and food insecurity.

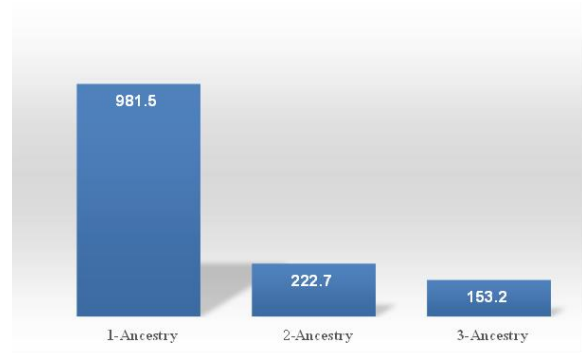
## II. METHODOLOGY

- Planning:  
Setting project goals, identifying project deliverables, creating project schedules, creating supporting plans. Field Survey is aimed to study the social impact on the society and the problem faced by farmers through a questionnaire requesting information from farmers is developed.

Interview of more than 70 farmers is conducted in connection with last 5 decades data regarding their family ancestry, social, environmental, waste and pollution, improper planning of land, barren land due to adverse effect of industrial discharge, lack of awareness, improper guidance



Map of Govardhan village  
 Details of Govardhan Village  
 Village Name -: Govardhan village, District -: Nashik,  
 State -: Maharashtra  
 Location-: 20.0314°N , 73.6963°E, Authority Name - :  
 Talathi - : NitinPawar  
 Kotwal-: Nitin Jadhav, Gram Sevak-: Vivek Patil,  
 Sarpanch -: Vinod Pawar



Ancestry wise Land availability (In acre)

### RESULTS AND DISCUSSIONS

#### • Occupation Of Three Ancestry's

Last 5 decades, is used to compare the occupations of three generations it is observed that the occupation pattern changed during each respective generation. Accordingly, the results of changing pattern of occupation is summarized as below

#### Ancestry -I

In first generation main occupation of 89% peoples was farming, occupation of 10% peoples was job i.e., private or government and only 1% people worked in business sector

#### For Ancestry -II

In second generation 60% of people's main occupation was farming, 33% of people's occupation was job i.e., private or government and only 7% people worked in business sector

#### For Ancestry -III

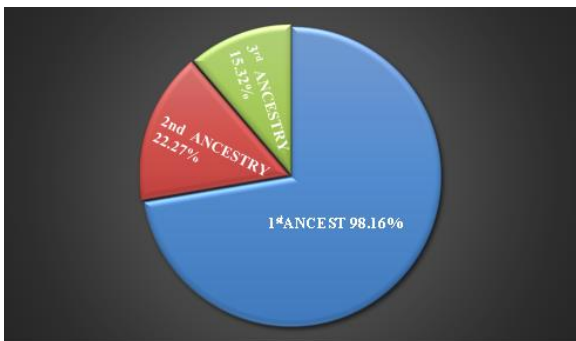
In third generation occupation of 36% people was farming, 31% people's occupation was job i.e., private or government, only 12% people worked in business sector. Among those 21% are students.

From field survey it is noticed that the farming isn't economical and the interest towards the farming not positive due following requirements

- i. 31% farmer think that produced crop do not fetch market value hence farming do not give gross profit.
- ii. 19% problems are about not getting labor.
- iii. 20% problem are about availability of fund. Due to



Feedback about farming



Ancestry wise land use for agriculture

this, farmer were not able to invest or purchase required essential material required in farming which directly effect on crop production and gross profit.

- iv. Although Govardhan village is very near to Gangapur dam, 16% problem occurred due to insufficient water and this problem happened due to improper planning of ground water conservation.
- v. Around 6% farmers have sufficient man power, finance and material but due to lack of guidance is cited as an hindrance regarding the crop selection according to suit climatic conditions and market requirement.
- vi. 1% of farmer feel that Requirement of modern equipment and technology is hampering agricultural production.

#### CONCLUSION

The study reveals the that in first generation the villagers had enough land for agricultural purpose hence 89% people were involved in farming. since farming was economical and more profitable, due to availability of water, labor, farming friendly climate. Also, the rate of literacy was low hence they turned into farming as it was their traditional occupation.

In second generation the percentage of farming was decreased upto 60% due to one or combination of several factors like, division of land between stake holders, occupation of land Gangapurdam project, Growth of infrastructural development into agricultural area, encroachment of cities to word the agricultural land, Farming was not economical, better occupation options, environmental conditions, expensive agro chemical products, not getting proper market value, facing water problem. This forced people to leave farming, the traditional occupation and turned to doing job into industries and private firms and some people choose private business.

In third ancestry the available agricultural land drastically decreased due to infrastructural development, industrialization. Greenland and green zone were converted into yellow decreasing farming percentage of third ancestry dropped to 36%. It means remaining peoples don't have option of earning from farming hence they migrate towards the city for

employment. This is alarming situation for food production to meet need of increasing population with decreasing rate of food production.

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