

SOCIO ECONOMIC SURVEY OF HOUSEHOLD IN PLANNED NODES IN NAVI MUMBAI

Executive Summary

The socio economic growth of the city is one of the important indicator to review the progress of the city. To study the socio economic aspects and trends in population in various planned nodes in Navi Mumbai, Statistical wing of economics section has been conducting a periodical survey at regular interval of time. The main purpose of conducting the periodical survey is to provide the benchmark progress of CIDCO and highlight the direction to which the city of Navi Mumbai is moving. The information generated from the household surveys is very crucial for providing valuable direction for the future planning. The socio economic profile of settled population, performance of Navi Mumbai as an emerging city can best be proved by such survey that bring out real facts from ground, behavior of new population in terms of demographic and socio economic trends etc.

The findings of the study are from planned nodes in Navi Mumbai. It doesn't include the original villages and slums.

Introduction to study and methodology:

The study is divided into three phases:

Phase-I: The total housing stock in Navi Mumbai.

Phase-II: Socio-Economic profile of the population in planned nodes.

Phase-III: The salient feature of each node

Objectives of Phase I –Housing Stock Analysis

1. To estimate total Housing Stock in Navi Mumbai by private sector and by CIDCO.
2. To estimate the total number of dwelling units by size of the unit, whether under construction or constructed as per the categories of:
 - Low Income Group (LIG-upto 25 sq. mtr.)
 - Middle Income Group (MIG1- 25-50 sq. mtr.)
 - Middle Income Group (MIG2 50-75 sq. mtr.)
 - High Income Group (HIG -above 75 sq. mtr.)

Objectives of Phase II –Socio Economic Profile

The major objective of this phase is to review the progress of the city as revealed by the following parameters.

- To study various Socio economic aspects and trends in population in various planned nodes of Navi Mumbai.
- To establish benchmarks of progress for CIDCO and highlight the directions for future planning.
- To ascertain economic status of households in terms of household income, expenditure, ownership status of household assets.
- To understand the transportation profile of the Navi Mumbai residents.

- To ascertain opinion of the household regarding social, cultural, environmental, health and security aspects.
- To study the status of Women Empowerment in Navi Mumbai.

Objectives of Phase III –Salient feature of node

A report on each node describing unique features in terms of location, land use, socio economic profile, recreational, Public utility and other relevant information.

Finding from Phase-I:

The estimated no. of dwelling units in 12 planned nodes in Navi Mumbai are 210773.

I. Dwelling units constructed: 2,10,773

- i) By CIDCO 53%
- ii) By private sector 47%.

II. Dwelling units under construction: 55,175

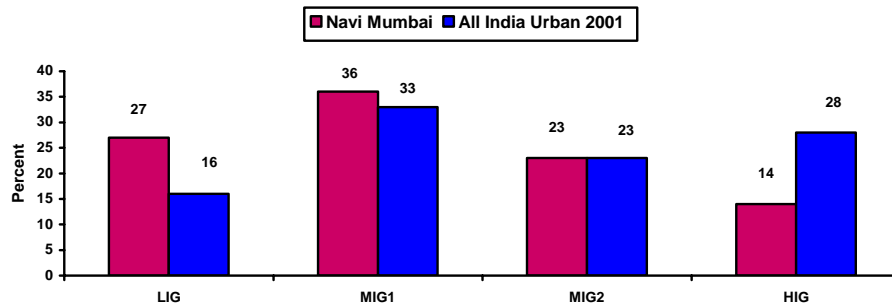
- i) By CIDCO 12%
- ii) By Private sector 88%

III. Sample Size

The sample size for the survey is 15% of the total constructed housing stock. A method of systematic random sampling is adopted, that is every 6th household is covered.

Sample size: 15 %(31,342)

The overall 27% dwelling units have been built for LIG, 36% for MIG-I, 23% for MIG-II and 14% for HIG. The following chart shows the comparison of Income category wise dwelling units in Navi Mumbai as compare to all India urban census 2001.



63% of dwelling unit are for LIG & MIG-1.

I. Floor wise dwelling units:

- The percentage of floor wise dwelling units in multistoried buildings for 2.1 lacs dwelling units are as follows:

Gr. floor	G+1	G+2	G+3	G+4	G+5	G+6	G+7	>G+7
2.4	16.8	16.8	38.6	13	0.9	3.1	6.8	1.6

- II. **Five yearly progress of construction of dwelling units:** The following table exhibits 5 yearly progress of constructed dwelling units in Navi Mumbai. It shows that in last 10 years more than 40% of tenements were constructed.

Builder	Upto 1980	1980-85	1985-90	1990-95	1995-00	2000-05	Total
CIDCO (%)	7	33	11	35	3	11	100
Pvt. Sector (%)	1	5	11	16	29	38	100
Combined (%)	4	19	11	25	17	24	100

The highest no. of dwelling units are in Vashi (16.8%), Nerul (16.7%), and Koperkhairane (14.5%), while least no. units are in Jui Komathe (1.9%) and Dronagiri (1.1%). The fastest growing node in term of dwelling units under construction are Nerul (10792 nos.), Jui kamothe (10,447 nos.) and Kharghar (9,137 nos.).

- III. **Breakup of the dwelling units by different category of residential use:** The following table presents the picture of formal sector. More than 80% of population resides in cooperative housing society.

Builder	Commercial Residential		Society/ Apartment		Row House		Bungalow	
	N	%	N	%	N	%	N	%
CIDCO	11628	12.3	78431	83.2	3670	3.9	516	0.6
Private	14543	14	77865	76	8935	9	647	1
Total	26171	11.6	156296	81.3	12605	6.4	1163	0.6

* Excluding BUDP core units

Findings from Phase II

I. Household characteristics

I. Average area of the household:

The built up area of dwelling units constructed by CIDCO is 36 sq. mtr. , by private sector is 56 sq.mtr. and overall 45 sq. mtr. :

Average built up area 45 sq.mtr.

Increase in Average built up area from 1995 to 2005:

- | | | | |
|------|--------|------|------------|
| i) | Survey | 1995 | 33 sq.mtr. |
| ii) | Survey | 2000 | 42 sq.mtr. |
| iii) | Survey | 2005 | 45 sq.mtr. |

II. Ownership of house:

Around 74% of the occupants owned dwelling units, 22% stays in rental accommodation and 4% in employer's provided dwelling units.

74% owned dwelling units

- 66% of the occupants owned the dwelling units as per Maharashtra Urban Census 2001 as against 74% in Navi Mumbai.
- Approximately 87% of dwelling units are owned by male members, 8% by female members and balance 5% are jointly by male and female members.

III. Original allottee:

56% are original allottees

In case of CIDCO built dwelling units, the original allottee ownership is 52%, while in case of private sector it is 62% resulting into an average of 56%.

IV. Source of finance:

The main source of finance for purchase of dwelling units is self-saving for 47% of households, 44% have taken the loan from the banks and 9% are depending on other financial institutions.

V. Length of stay in Navi Mumbai:

About 51% of the dwelling units are occupied for less than 5 years, 21% for 5 to 10 years, 12% for 10 to 15 years, 8% for 15 to 20 years and balance 8% for over 20 years. The average year of stay in Navi Mumbai is 9.81 years, which is little less than the last survey of 2000(9.87 years).

Average year of stay is 9.81

VI. Last place of residence:

The respondents were asked about previous place of residence before shifting to Navi Mumbai, 48% of the respondents shifted from Mumbai region, 9% from the villages of Navi Mumbai, 7% from other districts of Maharashtra and 6% from outside Maharashtra while 30% stay within Navi Mumbai.

48% shifted from Mumbai

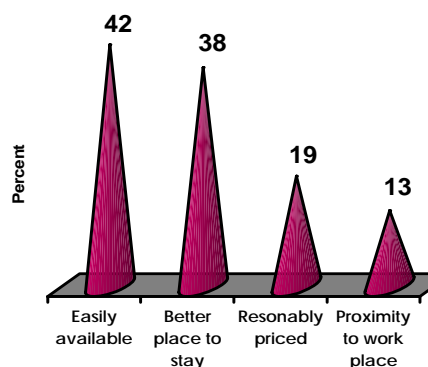
VII: Place of Origin:

The place of origin is Maharashtra for 66% of the household, 14% from Northern India, 11% from Southern India and 5% from Western India and rest from Eastern India.

66% of household are from Maharashtra

VIII. Reasons for shifting in Navi Mumbai:

Navi Mumbai has attracted large number of Residents due to the various reasons. The main reasons are given in the chart



2 Population Profile

I. Population in Navi Mumbai

Census group	Census 2001	Estimated 2005	Annual growth Rate
NMMC area	704,002	934,396	8.2%
Non NMMC area			
Nodes	152,802	206,206	8.7%
Villages	161,914	190,351	4.4%
Municipal Councils	84578*	98510	4.1%
Total Navi Mumbai	1,103,296	1,429,463	7.4%

*Panvel and Uran Municipal Councils as per Navi Mumbai Development Plan

II. Population growth:

The decadal growth rate of the population in Navi Mumbai is 74%.The comparison of growth rate with other places is as under:

Category	Decadal growth rate (%)
Navi Mumbai	74%
Greater Mumbai	18.4%
Maharashtra	29%
India	27%

III. Family size:

About 2% of the households have 1 member, 37% with 2 to 3 members, 54% with 4 to 5 members and 6% with 6 or 7 members, 1% with 8 to 10 members, the average household size is 3.83 as against 4.05 of the previous survey 2000.

Average family size 3.8

IV. Religion:

Navi Mumbai Population consists of **90% of Hindus**, 4% Muslims, 3% Christians, 2% Neo Buddhist and 1% of other minorities such as Sikhs, Jains and Others.

90% Hindus

V. Caste:

Navi Mumbai has **70% of total belonging to general caste** or non-backward classes, 17% Other Backward Classes, 7% Scheduled Caste and 2% Scheduled Tribe, 2% Neo Buddhist and 2% others.

70% General Caste

VI. Mother Tongue:

Marathi is the mother tongue for 62% of households, while 13% are Hindi speaking, 9% has South Indian languages, 7% North Indian Languages, 4% Gujarati, 2% Eastern Indian language 1% English speaking.

62% Marathi Speaking

VII. Population density:

Population density of Navi Mumbai and the main Mumbai are as follows:

- | | | |
|------|-----------------|---------------|
| i) | Navi Mumbai | 4167/ sq.km. |
| ii) | Greater Mumbai | 26722/ sq.km. |
| iii) | Eastern Suburbs | 20410/sq.km. |
| iv) | Western Suburbs | 24605/sq.km. |
| v) | Mumbai island | 49163/sq.km. |

Population density: 4167 / sq.km.

VIII. Sex Ratio:

There are 54% males, 46% females, sex ratio i.e. female per thousand male is as follows:

Navi Mumbai	851
Maharashtra	922
India	933

Sex ratio: 851

IX. Agewise Break up of the population:

- 83% of the population belongs to 0-45 years of age, 14% belongs to 45-59 years of age and 3% are senior citizen (60+).

Average age: 28 years

- The average age of the population is 28 years:
 - Male 28.3 years
 - Female 27.9 years
- The median age for the whole population is 28.55 years with modal class of 25 to 44 age group representing 39.14 years.

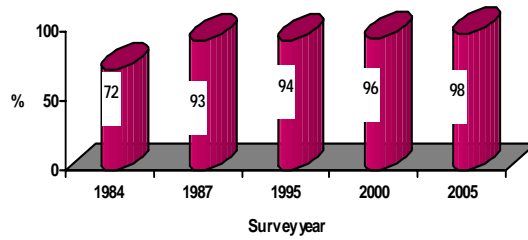
X. Literacy Staus:

The literacy rate of Navi Mumbai population is 98% as compared to 85% of Maharashtra Urban 2001.

	Navi Mumbai	Maharashtra Urban 2001.
Male	99%	91%
Female	96%	79%

Literacy rate 98%

The increase in literacy rate from 1984 survey to 2005 is given in the following chart



XI. Education Status:

Around 22.8% population had secondary education, 19% are graduate and 17% each are HSC, SSC pass. The females are well represented at SSC, HSC and graduates education level, and least at professionals and postgraduates level, The females lag behind male students in enrolment. Average number of graduates in Navi Mumbai is 19%. The nodes having graduates above average are Kharghar :29%, Vashi and CBD Belapur: 23%.

Graduates 19%

XII. Medium of instructions in schools:

62% Students in English medium schools

Nearly 62% of the students are studying in English medium, 35% in Marathi medium, 2% in Hindi medium and 1% in other languages like Gujarati.

3. Economic Profile:

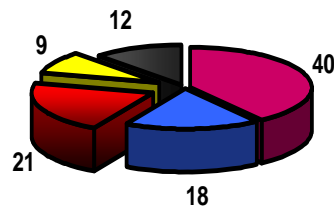
I. Work participation:

The working population in Navi Mumbai is 32%. Amongst the working population 89% are male and 11% are females with an average age of 38 and 33 respectively.

32% of population is working

II. Occupation:

Nearly 40% of the people are professionals, 18% are in business or industry owners, 21% of the work force is skilled worker, 9% unskilled workers and 12% work force are clerks and typists.



III. Place of work:

45% of the work force works in private offices, while 23% works in Government offices, 10% in industries and workshops and another 10% in commercial units, 6% in bank/public sector, 2% in construction, 2% in educational institutes and rest 2% are at other places.

**68% work in office,
45% in Private & 23% in Govt. offices**

IV. Location of work Place:

Nearly 36% of the working population goes to Mumbai for work, 1% in other BMR, 3% in Thane-Kalyan and 60% work force working in Navi Mumbai.

60% work force work and reside in Navi Mumbai

Regarding student's population 4% goes to Greater Mumbai and 96% study in Navi Mumbai.

V. Earning Members:

The Earning members in the family are as follows:

	Survey 2005	Survey 2000
Single Earner	78%	72.5%
Two Earners	17%	21.0%
Three Earners	4%	5.0%
More than three earners	1%	1.5%

The average working member per household is 1.27 as against 1.36 of the previous survey in 2000.

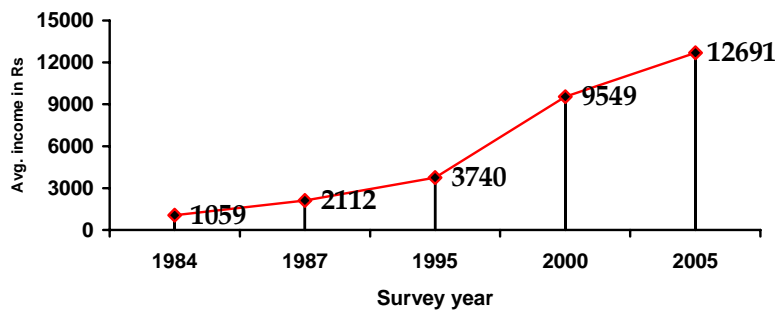
Average earning member per household 1.27

VI. Monthly Income:

The average monthly income for Navi Mumbai is 12,691. Vashi has the highest monthly income of Rs. 15,709/- followed by CBD-Belapur Rs. 15,590. The monthly income is lowest in Koparkhairane Rs. 8,145 followed by Kalamboli Rs. 8,668/-. Very low percentage of population has other source of income. The per capita income is Rs 3340 as compare to Rs.2498/- of previous survey 2000,

Average monthly income: Rs. 12700/-

The increase in monthly income from 1984 survey to 2005 is given in the following chart



The pensioner and retired persons have significant level of income which is shown as follows:-

Income of Senior citizens/students/others		
	Average Income Rs. per month	% to total population
Pensioners	5,718	2.4
Earning Students	4,841	0.2
Retired	5,738	0.4
Rent from Apartment	6,923	0.03

VII. Years of education and monthly income:

There is significant correlation between years of education and monthly income. A regression analysis is done to study the correlation between years of education and monthly income. The monthly income is dependent variable and number of years of education is independent variable.

More years of education => Higher income

The equation is as follows:

$$Y = 2480.48 + 672.33 * Z$$

where Y= Projected monthly income and Z= Years of education

Multiple R= 0.886, r²= 0.785, F value = 25.56

From this analysis, it reveals that additional year of education leads to high income. If illiterate then income is Rs.2480.

VIII. Monthly Income by built up area of dwelling Unit

There is significant correlation between area of dwelling units and monthly income of households. A linear regression line is fit by considering built up area of dwelling units as dependent variable and monthly income as independent variable

Higher the earning => Higher built up area

$$Y(\text{Predicted area of dwelling unit}) = 0.056 * \text{monthly income} - 24.08$$

Multiple R= 0.974, r²= 0.948, F value = 128.87

IX. Average Monthly Savings

- The Average monthly savings of household in Navi Mumbai is Rs. 4323 (34% of monthly total earnings).
- Savings against income is higher in Dronagiri (49%) and Vashi (38%) and is lower in Juikamothe (13%) and Koperkhairane (23%)

Average monthly savings 34%

X. Average monthly Expenditure

The detail analysis of household expenditure for various items on which families spend money is shown in the following table in decreasing order of expenditure.

Average monthly expenditure is Rs. 8357

Items	% to Total Expenditure
Grocery	33.3
Loan installment	13.8
Maintenance in building	11.3
Transport	8.5
Education	8.3
Telephone	7.6
Clothing	5.0
Medical	4.3
Entertainment	3.0
Others	4.9

Average monthly expenditure Rs. 8357

XI. Ownership of household assets

Overall 96% of the household owned television as against 70.5% of Maharashtra Urban Census 2001. Refrigerators are owned by 74% of the household, telephone by 58% as against 27.3% of Maharashtra Urban Census 2001, 50% have mobile phone, 35% of household have air conditioner, 13% of household owned computers, 4% owned commercial units.

96% household owned televisions

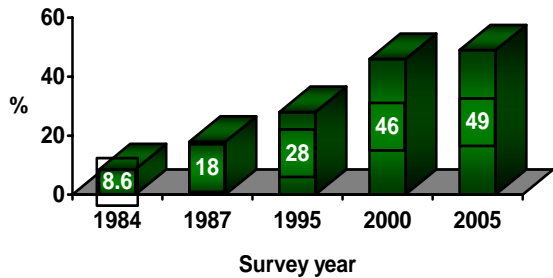
XII. Ownership of vehicles

As per the present survey 49% of the population owned vehicle. Several household have more than one vehicle. The break-up is as follows:

Car	10%
2 Wheeler	29%
3 wheeler	1.5%
Cycles	15%
Jeeps and trucks	2%
	5.8% (Census 2001- Maharashtra Urban)
	20.3% (Census 2001- Maharashtra Urban)

49% household owned vehicles

As per the various survey, the ownership of vehicle is as follows:



4. Physical and Social Infrastructure:

The opinions of the household regarding major physical infrastructure and social amenities are shown as under:

I. Social infrastructure:

Satisfied with the social facilities:

86% household happy with the schools

Primary and secondary schools	86%
Religious facilities	82%
Regional associations	61%
Health Facilities	70%

II. Safety and security:

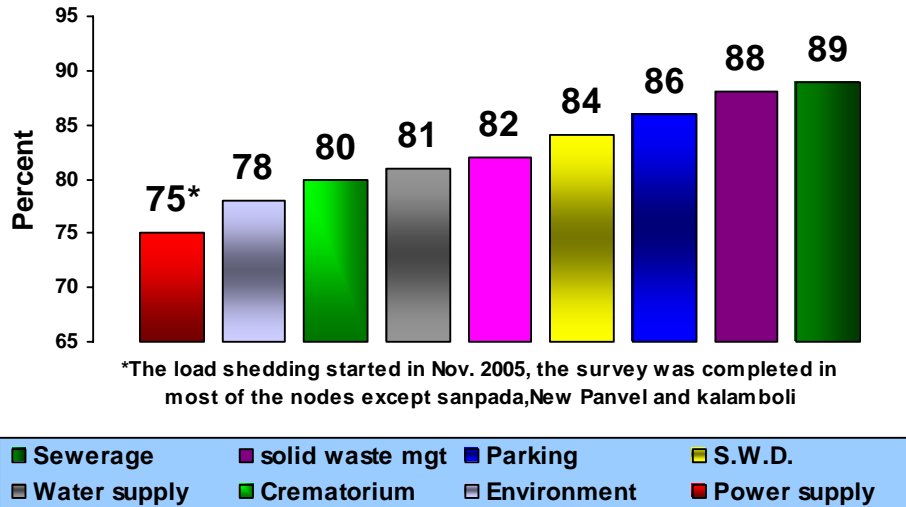
79% population satisfied with the overall safety

i) Overall security	79%
ii) Police Chowky	78%
iii) Police patrolling	80%

68% of the population satisfied with the RTO office and 84% of the population satisfied with the job opportunities existing in Navi Mumbai.

III. Happy with the physical infrastructure:

The following chart shows the satisfaction level of the people with physical infrastructure



IV. Satisfaction level with recreational facilities:

About 74% of the population satisfied with restaurants, 60% with the school playgrounds, 52% with the gymnasiums and yoga centers, 52% with the shopping malls, 45% with the theatres, 40% with the sports facilities, 35% each with the clubs, old age home, working women hostels and 29% with swimming pools.

5. Transportation:

I. Work Trips

- Work trips account for nearly 1/3rd of all the trips.
- 52.3% of all work trips take place **within Navi Mumbai** with 24% of the trips ending in **the same node**.
- 50% of the work journeys take less than ½ hour, 32% take ½ to 1 hour and about 14% take 1 to 2 hour.
- **Average travel time to work** is about **40 minutes**.
- The principal modes of travel to work are **Railway (33%)** , **N.M.M.T., Bus (16.1%)** and **Walk (15%)**.

II. Educational Trips.

- Education trips account for 35% of all travels undertaken.
- Each student undertakes on an **average 1.2 one-way journey each day**.
- 95% of all the education journeys take place within Navi Mumbai with 76% of the journeys taking place within the same node.

- Education journey times are much lower at an average of 18 minutes compared to 40 minutes for work or 28 minutes for the general average.
- The principal modes of transport for education purposes are Walk (64%), NMMT(9%) School Bus (9%) and Railway (6%).

Other Trips

- Journeys for other purpose require only 16 minutes of time in each direction
- The principal modes of travel for other purpose journeys are walking (85%), followed by Autorikshaw (8%), Navi Mumbai Municipal Transport (1%).

IV. Total Trips

- About 81% of all types of journeys take place within Navi Mumbai.
- The popular destinations for outside Navi Mumbai are Greater Mumbai (7%) and Thane/Kalyan (1%)
- Each journey requires about **1.7 modes of transport**.
- The principal modes of Transport are Walk (54%), Railway (14%), NMMT(9%) Autorikshaw (6%), BEST (3.5%)
- Overall the major purposes for travel are Education (35%), Work and Part of Work (34.7%), Shopping (24%), Social Visit (2.6%), Personal Business (1.5%), Recreation (1.1%) and Hospital/Doctor's visit (0.7%).
- The **average travel time of one way trip is 28 minutes**.
- On an average, every person in Navi Mumbai undertakes 1.8 two way or **0.89 one-way trip every day**.
- The **average monthly traveling expenditure** works out to **Rs. 834.4** This amounts to an annual expenditure of Rs. 211 crores for all of Navi Mumbai.

Only 46% of population use public transport

Average travel time:28 minutes

Average monthly travel expenditure Rs. 834

Women empowerment

This kind of study is done first time to know the status of women in Navi Mumbai. There are 46% women and sex ratios (female per 1000 male) is 851. The literacy rate is 96%. The working women are 11% and out of the working women, professionals and supervisors are 18%, teachers 18%, owners of industries 8%, traders and shopkeepers 4%, clerks 17%, skilled and unskilled workers 15%, real estate/brokers 13%, earn as housewives (coaching classes, parlor, tailoring etc.) 4% and others 5%.

Female literacy 96%

The average monthly income of **women is Rs. 7867 which is 25 to 30% less than the men** in the same profession, women from 86% of the households do not work outside home. The major reasons for not working include taking care of children 79%, opposed

Average monthly income of female Rs. 7867

by other family members 6%, No financial need 5%, not adequately qualified 4% and rest of them have no job opportunity in Navi Mumbai.

Decision making power

1 In household Expenditure:

It shows 12% of the women make decisions independently in the household expenditures. Joint decision making with spouse is practiced in 85% of the household.

2 In Education of children:

In 12% of the household, women are sole decision makers for children's education, while for 85% of the household, it is a joint decision of women and other family members.

3 In family matters

In family matters women are sole decision makers in 7% of the household and joint decision makers in 89% of the household. Only in 4% of the household, women are not consulted.

Ownership of dwelling unit

Women are sole owners or joint owners in about 12% of the household.