

## *EXECUTIVE SUMMARY*

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### **1. ABOUT THE STUDY AND COVERAGE**

1. The study covered the rural housing sector of Orissa and findings are presented under four household income groups - EWS, LIG, MIG and HIG.
2. The main objectives of the study are to:
  - Evaluate the number of houses, their type and components
  - Identify functional utilization of areas and spaces
  - Assess the choices priorities and preferences of residents
  - Provide information and direction to rural housing programmes in the state
  - Assess the changing trends in building materials and adoption practices
3. The survey covered all the rural areas in the 13 districts of Orissa (as per 1991). Data were collected through a scientifically designed survey from 64 blocks, 296 villages and 3,150 households. Nearly 175 man months were spent to collect data from the field and analyse the same.

### **2. SOCIO-ECONOMIC PROFILE OF HOUSEHOLDS**

1. The number of rural households estimated from the survey was of the order of 59.16 lakh (51.68 lakh in 1991), recording 14.5 per cent increase
2. EWS constituted the highest percentage of households (69.5%). Only 5.7 per cent belonged to HIG, indicating low level of economic prosperity in rural Orissa.
3. Household size increases as the economic status increases. The range of variation is from 3.9 for SEWS to 9.3 for HIG.
4. Households belonging to SC constituted about 21 per cent and ST 25 per cent. Nearly 55 per cent of EWS households belong to SC & ST communities.
5. More than 96 per cent of houses were owner-occupied. About 80 per cent of houses or sites were acquired as ancestral gift.
6. Average monthly income of a rural household is Rs. 2,406. Percentage of monthly savings is directly proportional to economic status.
7. Assets not only include houses, but also agricultural land, livestock and poultry. Modern amenities like TV and Refrigerator are mostly found among MIG and HIG households. The results indicate lack of rural prosperity in Orissa.

8. Around 7 per cent of the monthly income is spent as rent, whereas around 3 per cent on maintenance of houses.
9. Estimated Current Value of house, land & furniture is about Rs.43,000, Rs.1,24,000, Rs.2,51,000 and Rs.5,60,000 for EWS, LIG, MIG and HIG respectively.

### **3. STRUCTURAL PROFILE OF HOUSING**

1. Eight out of ten rural houses are having access from mud or gravel roads.
2. Of the total number of houses, about 19 per cent are Pucca, 35 per cent Semi-Pucca and a high percentage of 46 are Kutcha houses.
3. Independent houses constitute 47.3 per cent to the total and flats do not exist. Average area of housing unit seems to be 481 sq. ft. The area occupied by HIG households is double of EWS housing.
4. Roof heights of less than 9 feet or less are more common.
5. On an average, each house has 2.7 rooms. Around half the number of the houses have 2 rooms or one room.

### **4. BUILDING MATERIALS**

1. Around half the number of houses were built in the past 10 years.
2. About 32 per cent of the buildings are in good condition and 58 per cent are in fair condition. House condition is directly related to income and type of house.
3. Most of the houses are constructed under self-supervision with help of skilled labour.
4. Around 46 per cent of houses had grass/palm for roof cladding. Only one out of ten houses is of RCC roof.
5. Two out of these houses used mud and bamboo for walls.
6. The most common material for flooring is cow-dung and mud.
7. The trend to use better and sustainable materials is noticeable in the buildings constructed in the last ten years.

**5. FUNCTIONAL AREA ANALYSIS**

1. Spaces for different functions are well demarcated, though there is common sharing of functions in the same area.
2. Multi-purpose use of same room is noticed in most of the houses besides using semi-covered areas for the same.
3. Some functional areas like worship, sleeping and storage have inadequate lighting and ventilation.

**6. BASIC AMENITIES AND SERVICES**

1. More than 90 per cent of houses have neither toilet nor bathroom facilities.
2. Fixed Chulah is found in about 94 per cent of houses. The next common one is kerosene stove used by 5 per cent households and LPG stoves by 3 per cent.
3. Wood as fuel for cooking is used by 96 per cent of households.
4. Major sources of drinking water are public street taps and hand pumps; covers 68 per cent of households. Dependence on private sources increase with economic status.
5. Mostly soak pits or septic tanks are used for sewage disposal and UGD is absent.
6. Covered drainage is available for less than 2 per cent of households. While 82 per cent of houses have no drainage facilities.
7. Only around 35 per cent of houses have electricity connection. Two out of three houses use kerosene for lighting in the house.

**7. UPGRADATION OF HOUSES**

1. Nearly 15 per cent of the households felt the need for the upgradation of their houses.
2. The upgradation trend is towards RCC for roof, brick with cement mortar for walls and cement-concrete for flooring.
3. The EWS is willing to pay, on an average, Rs.11,932 for upgradation, while the highest is by MIG, Rs.53,091. On an average, upgradation cost per unit is about Rs.16,178.

**8. PERCEPTIONS ON PROBLEMS AND PRIORITIES**

1. Rural unemployment, poverty and landlessness are the three important major problems.
2. Lack of drinking water supply and electricity, and leakages and dampness in building structures are major problems.
3. The three top prioritized items are found to be water supply, leaks/dampness and electricity.
4. Generally, there is availability of adequate skilled labour in rural Orissa. However, plumbing and steel fabrication seems to be not available according to 50 per cent of households.

#### **9. AWARENESS OF TECHNOLOGY**

1. Awareness of new building technology and materials is rather scanty and 43 per cent are not aware.
2. Equally, willingness to adopt them is also scanty and only 24 per cent of households are opting for adoption.

#### **10. PERCEPTIONS ON DESIRED HOUSE**

1. Nearly 4 per cent of the households have a desire to expand the area of their residential space.
2. Among them, EWS households predominate and the general trend is to use the same materials for the additional accommodation as they have for the existing one. The higher income groups prefer to use more sustainable materials.
3. Overall, 25 per cent of house owners desire to have another house or better house.
4. EWS households prefer two rooms to one room house they have now and desire for more rooms, increase with economic status.
5. Brick and cement mortar walls and cement flooring are mostly desired in the event of acquiring a new house or upgrading the present one.

#### **11. CHANGING TRENDS IN RURAL HOUSING**

1. Majority of buildings constructed in the past 3 years, have used better materials ensuring longer life, higher durability and better technical properties for their houses in all aspects as compared to those constructed earlier.
2. Number of houses with more than one room is on the increase in new constructions. Consequently, the average floor area per unit is also on the increase.

3. Percentage of Pucca houses is likely to be doubled between 2001 and 2011 and may touch 35 per cent of total housing stock. Similarly the Kutchha houses may decline from 64 per cent to 40 per cent by 2011.

## 12. A COMPARATIVE STUDY AMONG DISTRICTS

The study has revealed that almost all the districts have equally shown the lack of rural prosperity. Cuttack, Sambalpur and Puri are the three districts, which have shown relatively, better housing and socio-economic conditions in the state.

## 13. RURAL HOUSING NEEDS AND FINANCIAL REQUIREMENTS

1. An enormous number of Kutchha houses in rural areas and lack of economic prosperity among the rural population throws a heavy burden on the local administration and authorities to meet the full requirement of housing needs. However, forecast of housing needs, finance and key building material requirement by 2011 are presented based on the survey results to provide some guidelines to meet the needs of housing in rural Orissa.
2. Total housing completions required during 2001 to 2011 is about 11.5 million units. The housing deficit is estimated at 18 per cent of total housing stock.
3. Average Annual Housing Completions required is 0.115 million units between 2001 and 2011. Nearly 85 per cent of completion demand accrues from EWS and LIG households.
4. The government/public sector may have to invest Rs.5089 million per annum in the coming decade for meeting housing for the rural poor. The total financial investment in the rural housing segment of the state by public and private sectors is estimated at Rs.13,970 million per year between 2001 and 2011.
5. The estimated key building material requirements by 2011 are:

Cement	8.92 million m ton
Steel	0.90 million m ton
Timber	7.48 million cum
Bricks	11.11 million metric ton