

REPORT OF THE
ADVISORY GROUP

ON

HOUSING STATISTICS

1977

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R E P O R T O F T H E

A D V I S O R Y G R O U P

ON

HOUSING STATISTICS

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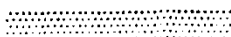
R E P O R T O F T H E
A D V I S O R Y G R O U P
O N
H O U S I N G S T A T I S T I C S

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CHAPTER I: INTRODUCTION

1.1 The Ministry of Works and Housing set up in July 1975, an Advisory-Group on Housing Statistics to review the current status of collection, tabulation and analysis of Housing Statistics and suggest the means for developing a sound statistical base for the housing and building sector. The composition of the Advisory Group and its terms of reference are as follows:

Composition:

- | | | |
|---|-----|------------------|
| 1. Director,
Central Statistical Organisation,
New Delhi. | ... | Chairman |
| 2. Chief Executive Officer,
National Sample Survey Organisation,
New Delhi. | ... | Member |
| 3. Statistical Adviser,
Reserve Bank of India,
Bombay. | ... | " |
| 4. Adviser (PP),
Planning Commission,
New Delhi. | ... | " |
| 5. Registrar-General of India,
New Delhi. | ... | " |
| 6. Director (Housing),
Ministry of Works & Housing,
New Delhi. | ... | " |
| 7. Director,
National Buildings Organisation,
New Delhi. | ... | " |
| 8. Director,
Bureau of Economics & Statistics,
Ahmedabad. | ... | " |
| (One of the Directors of SSBs will
be coopted as member by rotation) | | |
| 9. Joint Director,
National Buildings Organisation,
New Delhi. | ... | Member-Secretary |

Terms of Reference:

- (i) to review the existing arrangement for collection, tabulation and analysis of housing and building statistics;
- (ii) to examine the problems involved in the collection of statistics;
- (iii) to advise on further development of statistics in the housing and building sector;

- (iv) to examine and standardise concepts, definitions and technical procedures in regard to housing and building statistics.

1.2 The Group held in all six meetings and had a full discussion on each of its terms of reference. The summary record of these meetings is given in Annex I. The Group also constituted two sub-groups - one on Concepts and Definitions under the Chairmanship of Member-Secretary and the other on Index Number of Construction Costs under the Chairmanship of Shrimati Uma Roy Choudhry, Additional Director, Central Statistical Organisation. The reports of the two sub-groups are at Annexes II and III.

1.3 The recommendations of the Advisory Group are contained in the succeeding chapters of the Report. Chapter II gives an account of the current status of Housing Statistics and their shortcomings. Chapter III deals with the Data Requirements in the field of Housing and Building Construction, and Chapter IV, the Group's recommendations on the requisite arrangements for Data Collection and Analysis. Chapter V deals with Group's recommendations on Standardised Concepts and Definitions while Chapter VI broadly indicates the Organisational set-up required in the States and at the Centre, to implement the various recommendations of the Group. Chapter VII gives a brief summary of the recommendations and conclusions.

1.4 The Group wishes to thank the Directors of the State Statistical Bureaus for the assistance rendered by them in communicating their views and suggestions on strengthening the existing system of Housing Statistics. We are also grateful to the officers of the Central Statistical Organisation, National Sample Survey Organisation, Planning Commission, Registrar General of India and the Reserve Bank for their active cooperation at all stages of the work of the Group. We should also like to place on record the painstaking efforts of Shri B.N. Nair, Member-Secretary, Shri K. Kumar and Shri S.N. Narang, Deputy Directors, Shri A.N. Malik, Research Officer, and other officers of National Building Organisation in the preparation of various background documents and the first draft of the Report.

CHAPTER II: CURRENT STATUS OF HOUSING AND BUILDING STATISTICS AND THEIR SHORTCOMINGS:

Importance of Housing Statistics:

2.1 Housing is a primary need of the people and investment on housing constitutes a sizeable proportion of the total investment in the country. Several socio-economic factors influence the demand and supply of housing, the supply always very much lagging behind the demand. It is important, therefore, that the available human, material and financial resources are utilised optimally to meet the ever-increasing need for housing. Several considerations will, no doubt, weigh in this regard, such as, for instance, location, spatial distribution and density of housing units, promotion of appropriate technology for building industry, man-power requirements etc. Comprehensive and timely statistical data are a pre-requisite for a study of numerous variables involved in formulation of adequate housing and building construction programme and implementing various housing policies. These include the —

- (a) study of the economic significance of investment in housing and its relationship with overall capital formation;
- (b) material budgeting in terms of requirement of building materials;
- (c) measurement of employment in building industry;
- (d) movement in building costs; and
- (e) assessment of housing needs and demand.

2.2 Housing Statistics have been a recent addition to the Indian Statistical System. Organised collection of these statistics has really started with the establishment of the Socio-Economic Division in the National Buildings Organisation in 1960. This Division which has been entrusted with the over-all role of developing housing and building statistics and promoting socio-economic studies on various aspects of housing, initiated a number of statistical schemes in the Third Plan to improve the content of housing statistics. These schemes were pursued with extended scope and coverage during the Fourth Plan.

Housing Stock:

2.3 The main source of housing statistics has always been the population census which has, since its inception, included "house-listing" as an aid to the enumerators for the location of the households and the collection of census data. Little use was made, however, of the house-lists in assessing the housing situation until the 1961 census when

a standard system of house-listing was formulated for uniform adoption throughout the country. The aim was to collect the more basic data on housing such as the use to which the census house is put, the material used for wall and roof, the number of rooms, tenancy status and the size of the household. Similar information was collected in the 1971 population census also. The 1961 and 1971 censuses thus provide the statistics of housing stock with detailed break-up of data by administrative units, extending down to Districts (separately for rural and urban areas). They also furnish the broad characteristics of the census houses, but, do not deal with the housing conditions and amenities, such as access to protected water supply and availability of sanitary facilities etc.

Housing Conditions:

2.4 Data on housing conditions are mainly available through the National Sample Survey which has included housing as an item of inquiry right from its Seventh Round (1952-53) and collected the relevant information almost uninterruptedly till the Twenty-third Round (1968-69). The Twenty-eighth Round (1974-75) is the latest NSS Round in which such data were again collected. Information is generally obtained on the condition of the structure, nature of construction, state of repair, floor space and facilities available such as kitchen, toilet, electricity, water supply, etc. The item coverage and the extent of tabulation from Round to Round is shown in Annex IV. It may be pointed out that the NSS estimates are usually available at the all-India level and upto the State level only for some Rounds. Most of the information collected in the recent rounds has yet to be tabulated. These somewhat limit the usefulness of the information, particularly in the context of detailed planning at the level of the District and below.

Current Housing and Building Statistics:

2.5 Apart from the Censuses and Surveys, administrative records of the agencies concerned with construction activity or its regulation such as the Public Works and Local-Self Government Departments yield useful information on the current housing activity. The National Buildings Organisation has initiated with the cooperation of these agencies a Plan scheme in 1963 for organised collection of data on building construction. This programme popularly known as the three-tier scheme provided for the establishment of suitable statistical cells in the Public Works Department, Local-Self Government Department and the State Statistical Bureau for systematic compilation of information of all building construction activity with which the first two agencies are concerned. The items covered were the location of the project/structure, nature and type of

construction, number of dwelling units of various types, plinth area, floor area and the investment (the last in the case of Public Sector only). Information was obtained from the Public Works Department on building projects costing Rs.20,000 and above and from the Local-Self Government Departments, on private building construction in Municipal Areas with population of 10,000 and above. The State Bureau provided the requisite guidance to the Public Works and Local-Self Government Departments and coordinated the data at the State-level. The entire work is guided at the all-India level by the National Buildings Organisation which was also responsible for analytical studies of the data received from the States. Specimen schedules prescribed under the scheme are given in Annex V.

2.6 All the States and Union Territories except West Bengal and Haryana and the Union Territory of Andaman & Nicobar Islands have been participating in the three-tier scheme. The flow of the data from the States has, however, been neither regular nor timely. The quality of the information also suffers from incomplete coverage particularly in respect of building construction in the Private Sector. The scheme has hardly made any impact in some major States such as Assam, Madhya Pradesh, Bihar and Orissa while in some others there has been progressive deterioration in implementing the programme. In Rajasthan, for instance, the scheme was disbanded for reasons of economy and in Maharashtra, the Cell in the State Statistical Bureau was closed and the N.B.O. was required to collect the data directly from the concerned State Departments.

2.7 One of the main factors for the slow progress of the scheme appears to be the inadequacy of the existing administrative provisions to ensure complete reporting of house construction activity. In a number of States, the Municipal Bye-laws do not make it obligatory on the part of the private builders to supply the requisite information. Even in those States where such provisions exist, the local bodies are seen to be lax in enforcing the provisions. Apparently, Municipalities assign lower priority to such items of work and even in those Municipalities in which the statistical cells exist, the latter have not always been effective in collecting the requisite information due to lack of adequate coordination between the different Divisions of the Municipalities such as the Construction Division, the Regulatory Division and the Statistical Cell. It is also seen that the Statistical Cells were inadequately staffed and their strength remained static in spite of considerable expansion in work. The main operational constraint is obviously lack of resources and the low priority accorded to the programme, particularly, after the withdrawal of the Central assistance to the programme at the end of the Third Plan.

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Investment in and Financing of Building Construction:

2.8 The three-tier scheme also provides useful information on the investment in building construction by the Public Sector. For the Private Sector this information is obtained through special N.S.S. enquiries sponsored by the N.B.O. The N.S.S.O. organised during 1971-74 and 1974-76, exclusive surveys on "Investment in and Source of Financing Building Construction by the Household Sector in the Urban Areas". Housing investment in rural areas formed a part of the regular socio-economic survey of the Twenty-seventh Round (1972-73) of the N.S.S. The results of all these surveys are currently being processed by the N.B.O.

2.9 In the case of the Private Corporate Sector, the analysis of annual accounts of selected registered companies published regularly by the Reserve Bank of India provide data on investment in building construction and these could be used for estimating the investment in the sector as a whole. No separate statistics on investment in residential housing are, however, available in these studies. The Department of Company Affairs obtains the relevant data on housing investment from Registered Companies under its jurisdiction through a mailed questionnaire. This programme, however, suffers from a serious limitation of a large non-response. The Department of Company Affairs has now decided to collect the information in the form of a census of the relatively large companies supplemented by a sample coverage of the rest. It is hoped, that the revised programme will yield better results.

Production of Building Materials:

2.10 Regular information on production of building materials is presently confined to those items which are produced in the organised manufacturing sector such as cement, iron and steel, and their by-products. Information is neither complete nor reliable with regard to the building materials produced in the unorganised sector, such as bricks, lime, timber, etc. Likewise, statistics of consumption of building materials are not directly available from any reliable source.

Prices of Building Materials:

2.11 At the instance of the National Buildings Organisation, the State Governments have been collecting quarterly data on prices of building materials and wages of building labour at a few selected centres in each State. The N.B.O. brings out a half-yearly bulletin incorporating these data. The N.B.O. also compiles an Annual Residential Building Cost Index for the metropolitan city of Delhi and, some State Governments have also been compiling similar indices for selected cities.

2.12 The present status of price statistics of building materials leaves much to be desired. There is a wide variation in the price data from State to State, a part of which seems to be due to non-conformity to uniform standards and procedures prescribed by the National Buildings Organisation for price collection. While according to the specifications of the N.B.O. only retail prices of building materials are to be collected, some States still report wholesale prices of these commodities. The coverage of items is limited and does not provide for all major materials used in building construction. The present programme has to be streamlined and made more broad-based to ensure regular and complete coverage of the price data.

Employment in Building Construction:

2.13 Information on the number of persons employed in building construction activity is available from the Directorate General of Employment & Training through its programme of Employment Market Information (EMI) which gives separately for the Public and the Private Sectors details of the number of persons employed according to each industry-occupation class. The scope of the EMI has been extended with effect from 1966 at the initiative of the N.B.O. for a more comprehensive coverage of this information through special measures for identifying all construction establishments (coming within the purview of the EMI). Nevertheless, the coverage is still far from complete in respect of the Private Sector as revealed by a joint study of the N.B.O. and the D.G.E.T. in 1970. The study has come to the conclusion that employment data in the construction sector can be satisfactorily obtained only through systematic large scale sample surveys.

Consumer Needs and Preferences:

2.14 Some information on consumer needs and preferences with respect to the lay out of the building and facilities is available through the surveys organised by the N.B.O. This survey of Government residential buildings has been undertaken with a view to helping the design of better functional houses. N.B.O. has also organised an opinion survey to ascertain the consumer preferences about various low-cost designs of houses.

Socio-Economic Studies:

2.15 In addition, the N.B.O. has, from time to time organised with the assistance of other institutions socio-economic research studies having a bearing on housing policy, finance and programme requirements and preferences. The more important topics covered were: (i) relative priority for housing; (ii) tax relief to low-cost housing; (iii) subsidy for different income groups; (iv) mobilisation of resources for housing; and (v) reorientation of land policy in urban areas.

CHAPTER III: DATA REQUIREMENTS

3.1 In order to formulate an adequate programme of housing statistics which will meet the essential requirements of various user organisations, the Advisory Group sought the views of the major user organisations in this regard. The Central Statistical Organisation, the Planning Commission, Reserve Bank of India, the Ministry of Works & Housing were asked in particular to indicate their requirements in terms of the additional items to be covered, the level at which information is desired, periodicity and inter-se priority. A summary of the data needs reflected by these organisations is given in Annex VI.

3.2 The Central Statistical Organisation viewed its requirements in the context of preparation of estimates of national income and capital formation and the construction of social indicators. The Planning Commission related its needs to preparation of input-output tables and long term projections. The Reserve Bank of India while stressing the need for detailed housing statistics in the estimation of capital formation, suggested collection of data on land prices and on "housing starts" as an indicator of economic activity. The Bank also emphasised that it is necessary that all housing statistics pertaining to the economically weaker sections should become available in a single source of reference. The National Buildings Organisation and the Ministry of Works & Housing were mainly concerned with formulation, implementation and monitoring of housing policies and programmes. In this context the need was expressed for disaggregation of all relevant information down to the district level as far as possible and according to rural and urban areas separately.

3.3 The following are the more important requirements of additional data of the user agencies:

Building Stock and Conditions of Housing:

Most user agencies expressed the need for regular data, preferably, at intervals of five years, on the number of building structure and the nature of housing conditions. Such information is required in respect of the smallest possible administrative division in order to assess the extent and acuteness of housing shortages in each area. Additional information on the year of construction, current market value, annual rental, expenditure on repairs and maintenance of building structures, is considered extremely useful for preparation of estimates of national income and related aggregates and for building various plan models. Information on availability of water supply, electricity and independent toilet facilities are also considered important for assessing the housing conditions and standard of living of the people.

Current Building Activity:

More detailed information is required both by the Central Statistical Organisation and the Planning Commission on current building activity for evaluating in particular the investment on new construction, additions and alterations, and repairs and maintenance. These data are required on annual basis separately for urban and rural areas. Separate information on housing starts is desired in addition to the present data on completed structures.

Building Materials:

Statistics of production, consumption and distribution of building materials are required in much greater detail than at present. These should be available in respect of each State for major items such as cement, steel and structurals, bricks and timber. Wholesale and Retail Prices of building materials are equally important and they are required with the frequency of a quarter from selected centres of each State. The Reserve Bank has also suggested collection of prices of land ear-marked for building construction on an annual basis. Wages paid to building labour are as important as prices of building materials for the compilation of appropriate building cost indices and the estimation of regional variations in building costs.

Building Finance and Investment:

In addition to the available information on investment on building activity in the public and private corporate sectors, similar information relating to the private household sector is also required on a regular basis. The sources and conditions of financing (duration of loan, rate of interest etc.) are also important for the preparation of estimates of investment and savings

3.4 In view of the special requirements of rural areas in the field of housing and the current emphasis on rapid promotion of integrated rural development, the proposed system of housing statistics should provide for the detailed information reflecting the housing conditions and requirements of the economically weaker sections of rural population.

3.5 The Group broadly endorses the above-mentioned requirements as quite important and suggest that they should be met as soon as possible by suitable expansion and development of the present system of housing statistics. We are of the view that the existing programme of censuses, surveys and administrative records can be reoriented and enlarged in scope and coverage to fulfil these requirements. It may not, however, be possible to furnish all the desired information at a very detailed disaggregated level with the proposed frequency.

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Detailed disaggregation is possible only when information is obtained through censuses or through administrative records. Whenever information is obtained through sample surveys, estimates will be available at the level of each State or at the most, for groups of Districts within a State. The periodicity of information also depends upon the manner in which it is obtained. All data based upon the census is obviously available once in ten years. Information obtained through sample surveys, unless it is integrated in the regular Rounds of the National Sample Survey Organisation, can be obtained as frequently as an exclusive survey is organised for the purpose. Subject to these limitations, however, we feel that the existing machinery could be adequately mobilised to fulfil most of the priority requirements of housing statistics. The arrangements for this purpose are considered in the next Chapter.

CHAPTER IV: ARRANGEMENTS FOR DATA COLLECTION

4.1 We have discussed in the previous Chapters the current availability of housing statistics and the additional information required to be collected for building up an adequate system of housing statistics which will meet the requirements of all principal users of the data. In this Chapter we shall consider the manner in which data collection may be organised to fulfil the above objective. As mentioned earlier, we consider the existing sources of information, namely, Censuses, periodical Surveys and Administrative Records, can be better exploited with suitable expansion in scope and coverage to provide for most of the requisite information.

Housing Censuses:

4.2 As a part of the decennial population censuses, a large amount of information on housing is presently obtained, such as the number of houses, the use to which they are put, the nature of construction, the number of rooms etc. We suggest that this programme should be expanded with effect from the ensuing 1981 Population Census to cover other essential items of information hitherto left out of the census. The additional items we particularly recommend are: the number of dwelling units with electricity connection, source of drinking water supply, availability of toilet facilities (in the urban areas) and the number of nucleus family units. These items, in the view of the Group can be added without much difficulty to the list of items already covered in the earlier censuses without any serious additional burden on the primary census enumerator. The Group does not consider it necessary to have a fullfledged housing census independent of the population census if the latter can accommodate the few additional items mentioned above, and, further the tabulation programme of the census provides for detailed disaggregated tables on the housing characteristics at district level in the case of rural areas and each town in the case of urban areas. The desirability of presenting tabulations at the level of each Community Development Block may be considered. Efforts should also be made that the census tables on housing become available in about a year's time after the completion of the census. The census data, thus, available will be useful as bench-mark information on the housing situation and housing conditions with the requisite detail and provide the basis for formulating appropriate development programmes for housing at the local level.

Large-Scale Sample Surveys in the Housing Sector:

4.3 It is obvious that the census can cover only a few major characteristics of housing. Most of the detailed information which requires complex and frequent field enquiries can be collected only through large scale sample surveys or by

systematic compilation of data available from administrative and operational records wherever they are maintained. So far as housing activity is concerned, administrative records are rather limited in scope in the sense that they are maintained mostly in respect of public projects or building programmes within large urban areas. The role of sample surveys as a means of collecting integrated information with a full geographical coverage, therefore, assumes an important role in the field of housing statistics. A mention has already been made of the attempts made hitherto through the National Sample Survey to obtain essential information on housing conditions, investment, etc. The experience of the past surveys has shown that they cannot help in building up a comprehensive system of housing statistics unless the entire subject of housing forms the major part of the survey programme in a given Round of the N.S.S. It seems imperative to have an exclusive integrated housing survey from time to time to provide all the requisite information on housing. This has also been recognised by the Governing Council of the N.S.S.O. which set up a Working Group on Housing and Construction Statistics, whose report has been forwarded for the consideration of our Group. We are glad to note that the N.S.S. Working Group recommended inter-alia a fullfledged inquiry on construction covering both building and non-building activities in the rural and urban areas, to be conducted every five years. The coverage of the enquiry is sufficiently broad-based and includes, apart from major items on housing conditions, details of current building construction activity, input-output structure, volume of employment, investment in and financing of construction etc. The minimum list of items recommended to be covered by the quinquennial survey is attached (Annex VII).

4.4 We strongly endorse the proposal of an integrated survey on housing and construction by the N.S.S.O. This will provide most of the essential information indicated in the previous Chapter. It will also enable cross-tabulation of data by major variables, which has not been possible earlier. The N.S.S. enquiry, further, would be able to provide information at a sufficiently disaggregated level (urban and rural areas separately) for the formulation and implementation of most of the development programmes in the housing sector.

4.5 We would also suggest that the quinquennial housing (and construction) survey should be so timed that the next survey is scheduled almost about the same time as the population census in order to supplement the information available through the census. The subsequent quinquennial survey will provide the bench-mark information at the mid-point of the successive censuses and thus help in evaluating the overall progress being achieved in this vital sector at intervals of 5 years. This would be a significant improvement over the earlier position where such bench-marks could be established only at decennial intervals.

4.6 As the proposed quinquennial housing inquiry cannot, however, provide information on items like type and stage of construction, alterations and additions, value of new construction on which data will have to be obtained more frequently than once in five years, we support the recommendations of the N.S.S. Working Group that most of these items be covered in the annual socio-economic rounds of the N.S.S. either at the stage of house-listing or by the addition of a special block to the household schedule. Such a procedure will enable collection at a marginal cost of valuable information on current building activity particularly in the unorganised household sector, which is not otherwise available.

4.7 We further recommend strongly that the results of these N.S.S. inquiries should be processed quickly and the customer requirements in this regard should be adequately provided for in the tabulation programme. As noted in an earlier Chapter, although much valuable information on housing was collected by the N.S.S., this was neither tabulated in full nor in time. We consider it extremely important that this short-coming should be removed in respect of the future surveys at least to enable the user organisations to take maximum advantage of the information collected through these inquiries.

Administrative and Operational Records:

4.8 One of the most valuable sources of housing statistics is the system of records maintained by the regulatory and operating agencies in-charge of building construction activity. The records maintained by establishments producing building materials and the price controlling authorities (in respect of prices of building materials) are the other major sources of information. We recommend that these records and returns should be made use of to a much greater extent than has been done in the past. This does not involve much special effort or cost unlike, for instance, large-scale sample surveys which call for considerable additional resources. What is required is some streamlining of the machinery responsible for maintaining these records, ensuring regular flow of information and a marginal addition to the resources for more regular and systematic compilation of the information in the prescribed format.

4.9 The programme under the Three-Tier Scheme described in Chapter II is, in fact, intended for the above purpose. Unfortunately, however, this has not succeeded to the desired extent because of many constraints and difficulties mentioned earlier. We consider it extremely important to put the Three-Tier Scheme on a sound footing and make it operationally successful. At the outset, the Group would recommend that the Municipal Bye-laws should be reviewed to examine whether it cannot be made obligatory on the part of the private builders to furnish the minimum basic information about intended plan

for building construction, and the details of construction at the time of completion/occupancy. We would suggest that this matter should receive priority attention at a larger forum such as the Annual Conference of Ministers of Local-Self Government so that Municipal Bye-laws could provide uniformly throughout the country for the maintenance of adequate building construction records by the Local-Self Government Offices. It is realised that this is a time-consuming process but, meanwhile, the National Building Code, which we understand is likely to be accepted by all States, may help the authorities to collect housing and building statistics in a much smoother manner than before. The full benefit of the National Building Code should be availed of to the extent possible for this purpose.

4.10 We have examined the formats prescribed by the National Buildings Organisation for collection of information on building activity at the stage of starting the construction and at the stage of completion. These forms are simple, contain only the most essential information and are easy to fill in. We recommend that they should continue in the future also. We also recommend that the present practice of collection of data at the time of authorisation of building construction and at the time of completion may continue.

4.11 The real improvement required in the Three-Tier Scheme is in the manner of maintaining the records in the Municipal Offices and its aggregation and reporting it at periodic intervals. The Statistical Cells in the Municipal Offices wherever provided have not hitherto been effective for this purpose. In the light of the detailed examination of the difficulties experienced, the Group would recommend the following measures to improve the existing procedures:

- (1) Only metropolitan cities and larger municipal towns (selected on the basis of high intensity of construction activity) may be required to furnish regular information on building construction activity. These should each have a separate statistical cell for this purpose. The amount of work involved will keep the Cell fully employed throughout the year.
- (2) The remaining municipal towns may be covered on a sample basis in such a manner so that all of them will be accounted for in a prescribed period of 2-3 years.
- (3) The records in these municipalities will be maintained according to the prescribed standards by the regular staff of the offices but their work will be guided and supervised by a periodic statistical supervisor who will also

undertake the work of aggregation of the information and preparation of the annual returns in respect of the selected municipalities at regular annual intervals. The non-statistical staff of these municipalities may be paid an appropriate honorarium as incentive for the extra work they are required to do under the scheme.

- (4) The State Statistical Bureaus which should be in over-all charge of the housing statistics, including those on current building activity should have adequate wholetime staff exclusively responsible for this work. The Officer-in-charge must have sufficient standing and experience to be able to deal with his counterparts in the Public Works Department and the Local-Self Government Department for effective implementation of the programme.
- (5) This programme should also provide for periodical training of the non-statistical staff concerned with the maintenance of the relevant records and documents which form the source material of the building activity statistics.

4.12 . So far as the Public Sector building activity is concerned the existing arrangement of having a separate cell in the State Public Works Department may continue. We would however suggest that projects of estimated cost of Rs.50,000 and above only may be covered by the reporting system (instead of Rs.20,000 as at present). The frequency of submission of returns may also be reduced to once a year instead of six months presently.

4.13 In our assessment, the Three-Tier Scheme did not really do well because of the serious financial difficulties faced by the States in continuing the scheme as originally envisaged. The Group would strongly recommend that the Ministry of Works & Housing may revive this project as a new centrally-sponsored Plan scheme so that it can be uniformly and simultaneously implemented in all the States.

Production of Building Materials:

4.14 Information on production of building materials is currently available in respect of the organised sector through the reports of the Annual Survey of Industries which covers all establishments using power and employing 10 or more workers and those not using power and employing 20 or more workers. Information on the production of cement, iron and steel, structurals, glass, sanitary wares, refractories, paints and varnishes, commercial ply-wood etc. are available from this source. Similar information from the unorganised manufacturing sector is not, however, available. The Economic Census and the follow up surveys being organised by the CSO may to some extent fill this gap provided adequate coverage

is given in the enquiry to establishments concerned with production of building materials. This should be immediately looked into. A substantial part of the unorganised sector can, however, be independently covered by the State Directorates of Industries and the Development Commissioner, Small Scale Industries at the Centre, who have a fairly comprehensive programme of registering small-scale units and obtaining regular return from them on their production and other activities. We suggest that these agencies should be requested to compile separately the information relating to production of building materials by the establishments falling within their jurisdiction.

4.15 Until detailed and complete statistics of production of building materials are available, more reliance has to be placed on statistics of consumption. In this case, the situation in respect of the unorganised sector particularly, the household sector is likely to be more satisfactory as the proposed quinquennial N.S.S. Survey on housing and construction will provide adequate information on the consumption of building materials in both rural and urban areas.

Prices of Building Materials and Wages of Building Labour:

4.16 We recognise the need for regular collection and maintenance of data on prices of building materials and wages of building labour for the construction of index numbers of building costs and for measuring the value of construction at constant prices. The Economic Adviser's Index Number of Wholesale Prices which covers only a few selected construction commodities is obviously inadequate for this purpose. We would, therefore, suggest that the programme initiated by the NBO some time ago for collection of data on retail prices of building materials, should be expanded to cover all major building materials and, in particular, items such as bamboo, stone chips, sanitary and electrical fittings, bitumen and steel structures. The geographical coverage which is presently confined to a few centres in each State should be enlarged and made more representative. It is also necessary that the States should follow uniform concepts and procedures to bring about comparability of prices between different centres and States.

4.17 As mentioned earlier, one of our sub-groups considered at length the issues involved in the construction of building cost indices. The note containing their recommendations is given in Annex III, which we endorse for adoption. The main conclusion that emerges from the sub-group's deliberations is the need for separate indices for each type of building construction activity separately for rural and urban areas. For this purpose, buildings are divided into two major categories, residential and non-residential and each category again into three groups - Pucca, Semi-pucca and Kutchha. Compilation of independent indices for each of these categories would imply

obtaining information on the input-output structure in respect of each. Special efforts will have to be made to bring together all the available information from surveys and administrative record to provide the appropriate weighting diagram for each individual index. The weighting diagrams will include non-material input such as labour charges, architect fees, engineering supervision etc. We consider it important that the N.B.O. and the C.S.O. and the Planning Commission should work together in resolving the technical and data problems encountered in the compilation of these index numbers.

Socio-Economic Research Studies:

4.18 The N.B.O. has placed before the Group a list of research studies and surveys on socio-economic and other related aspects of housing, which could supplement housing statistics. We consider that these studies are quite useful and recommend that they should be taken up as a part of the regular work programme of the Socio-Economic Division of the N.B.O. The Division may devote itself only to desk studies, leaving any major field investigations that may be required in this connection to other institutions. We also suggest that an inter-departmental steering group may be set up to decide the inter-se priority among the various research studies. A list of these studies is given in Annex VIII.

Housing for Economically Weaker Sections of the Society:

4.19 Throughout our deliberations we have been alive to the special data requirements for provision of housing facilities to the economically weaker sections of the Community, particularly, for monitoring the progress made in this direction. We recommend that the Ministry of Works & Housing should arrange for regular compilation of statistics relating to current building activity under various Social Housing Schemes. We are glad to note that a beginning has already been made in this direction in the light of the recommendations of the State Housing Ministers Conference. Apart from Social Housing Schemes a number of other projects have been launched to benefit the economically weaker sections, such as the housing schemes financed by HUDCO and Scheduled Commercial Banks. There is, however, no single agency to coordinate the collection of statistics on the progress of these projects. We would recommend that the Ministry of Works & Housing may create a small cell for coordinating the progress reports of all these schemes, including the Social Housing Scheme and arrange for regular publication of such data. We would also draw attention to the N.S.S. Surveys of Slums in its 31st Round in all Class I towns. The results of this survey should be tabulated quickly to provide bench-mark information about the current status of slum dwellers.

Land Prices:

4.20 Information on land prices is also of great relevance in the overall system of housing statistics although it is

not directly linked with the investment costs in buildings and other construction. Control of land costs has a large bearing in furthering the social objectives of building construction. We, therefore, suggest that a beginning should be made by arranging for the collection of land prices in the urban conglomerations and the semi-urban areas with the help of the Local-Self Government Offices, Improvement Trusts and Real Estate Agents. Registration of sale-deeds would be yet another source of this information. We would suggest that appropriate guidelines and procedures may be formulated to ensure uniform collection of land prices throughout the country.

Data Bank:

4.21 It would be very useful if the National Buildings Organisation sets up a comprehensive data bank which will systematically compile and store all relevant statistics on housing and building construction, flowing from various sources, in particular, from the sources which we have considered in the foregoing paragraphs. We consider that the N.B.O. should function as the national agency for coordinating and collecting all housing statistics. The endeavour should be to facilitate ready access to both published and unpublished information at a single place. It would be preferable for this purpose to use modern methods of storage and retrieval such as computer-based information system. This will, however, take time to organise and a beginning could as well be made with a manually operated system whereby through limited processing of the results available from various sources and systematic recording and referencing the requisite information can be stored and accessed. The Group was informed that the N.B.O. has already a system of maintaining detailed documentation, bibliography, etc. We suggest that this should be further examined with a view to widening its scope and coverage to meet the increasing needs of various users.

CHAPTER V: CONCEPTS AND DEFINITIONS

5.1 One of our terms of reference is to examine and standardise the concepts and definitions in the field of housing and building statistics. As already mentioned, this was considered by a Sub-Group of the Advisory Group, whose recommendations are given in Annex II. We note that the concepts and definitions used by various Central and State collection agencies are not always the same. The Sub-Group has, therefore, sought to reconcile the discrepancies and have suggested a common set of concepts and definitions for uniform adoption by all agencies. While doing this, the Sub-Group has taken due note of the concepts and definitions recommended by the United Nations, and adapted them in the context of the Indian situation. The final list has been limited only to the more important items which are in frequent use or of immediate relevance in the housing and building statistics of the country.

5.2 We endorse the recommendations of the Sub-Group that the proposed set of concepts and definitions should be adopted uniformly by all agencies responsible for collection of housing and building statistics, and in particular, the Census and various Survey Organisations.

CHAPTER VI: ORGANISATIONAL ARRANGEMENTS

6.1 We have made several recommendations in Chapter IV on the programmes and procedures required for improving the system of housing and building statistics. For a successful implementation of the various schemes, it is necessary to strengthen the existing organisational arrangements, both in the States and at the Centre and provide adequate financial support. Housing being a State subject, the need for such measures at the State level assumes even greater importance.

6.2 We suggest that the State Statistical Bureaus should be entrusted with the full responsibility of directing and coordinating all the State level statistical activities in the field of housing statistics. The principal programme, as already indicated is the Three-Tier Scheme which extends over a number of construction agencies in the Public Sector including Local-Self Government Offices. The State Statistical Bureaus may be made technically responsible for the operation of this scheme. This will involve: (a) guiding and supervising the statistical personnel located in the construction agencies; (b) collection by Bureau's own staff of the requisite data from those offices where independent Statistical cells are not justified; (c) training of the staff concerned with the maintenance of records and preparation of reports; (d) ensuring regular submission of reports to the National Buildings Organisation; and (e) publication and dissemination of information. The State Statistical Bureaus will have to be strengthened for this purpose. They may require small teams of peripatetic statistical investigators who will be entrusted with the collection of primary information from the smaller municipalities etc. and some additional staff for training and supervision on the one hand and for tabulation and analysis on the other. It would be desirable to designate a senior officer at the State Statistical Bureau exclusively for the work of housing and building statistics.

6.3 The main weakness of the Three-Tier Scheme has hitherto been the low priority accorded to it by the offices of the Local-Self Government Departments and the calibre of the people entrusted with the maintenance of records and returns relating to building construction. We consider it important to provide suitable incentives to the staff at the ground level to undertake this work in the manner prescribed. A small honorarium to the primary compilation agency in these offices can be quite effective in upgrading the quality of housing statistics. We would suggest that consistent with existing rules and normal practices, a monetary incentive may be provided to the staff in the offices of the Local-Self Government Departments, particularly, those which do not possess a statistical cell of their own. As already indicated in an earlier Chapter, it will be necessary to

revive the Three-Tier Scheme as a new Centrally sponsored Plan Scheme with adequate provision of staff and other incentives mentioned above.

6.4 Apart from administrative records, the two other principal sources of housing statistics are the decennial census and the National Sample Survey and other large-scale surveys. The data collected through these agencies should be tabulated expeditiously and the existing resources should be augmented for this purpose, if necessary. If the organisations concerned continue to give a low priority to the tabulation of data on housing and building activity, the National Buildings Organisation may be enabled to undertake this work on its own or arrange for it elsewhere by meeting the cost involved. We would repeat that unless data collected through censuses and surveys are tabulated in time, the resources spent for this purpose would be largely infructuous.

6.5 A much larger responsibility will devolve on the National Buildings Organisation in the light of various other recommendations made by the Advisory Group. We have, in particular, suggested a number of socio-economic studies, construction of a variety of indices on building costs, the organisation of a fulfilled data bank and a greater thrust towards economic analysis as an aid to policy-making and formulation of development programmes. The National Buildings Organisation will also have to play a more active role in liaising with the State Statistical Bureaus as well as a number of other agencies at the Central level such as LIC, HUDCO, etc., which are increasingly called upon to invest large sums of money in house-building activity. On its own the N.B.O. should continue to undertake training courses/seminars for the benefit of statistical and other staff who are concerned with housing statistics in the States and at the Centre. The Socio-Economic Division of the National Buildings Organisation should be adequately strengthened and its status suitably enhanced to undertake these activities. This Division should be able to provide leadership and overall direction to all agencies concerned with the statistical system in the field of housing and building construction, and assist the Ministry of Works & Housing and other Central agencies on all economic issues relating to housing policies and programmes.

CHAPTER VII: SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1. A fullfledged housing census independent of the population census may not be necessary. The scope of housing data collected at the population censuses, may however, be expanded to cover other essential items. The tabulation programme may provide for detailed disaggregated tables on housing characteristics at the district level in the case of rural areas, and each town in the case of urban areas. The desirability of presenting the tables at the level of each Community Development Block may be considered. (para 4.2)

2. The proposed quinquennial survey on housing and construction by N.S.S.O. will provide most of the essential information (mentioned in paras 3.2 to 3.4) at a sufficiently disaggregated level. The next survey may be scheduled about the same time as the 1981 population census in order to supplement the census information on housing and to provide thereafter quinquennial bench-marks on the progress made in the field.

(paras 4.3
to 4.5)

3. Information on type and stage of construction, alterations and additions, value of new construction may be collected in the annual socio-economic rounds of the N.S.S. either at the stage of house-listing or by the addition of a special block to the household schedule.

(para 4.6)

4. The results of the N.S.S. enquiries on housing should be processed in a comprehensive manner to meet the customer requirements and should be brought out quickly so that user organisations can take maximum advantage of the data.

(para 4.7)

5. Administrative and operational records on housing statistics should be made use of to a greater extent than has been done in the past. Streamlining of the machinery responsible for the maintenance of these records and additional resources are required for this purpose.

(para 4.8)

6. It is important to put the Three-Tier Scheme on a sound footing and make it operationally successful. The Municipal bye-laws should be reviewed on the lines suggested to facilitate the programme.

(para 4.9)

7. The practice of collection of data at the stage of authorisation of building construction and at the stage of completion may continue in the formats already prescribed by N.B.O.

(para 4.10)

8. Measures to improve the existing procedures for maintenance of records in the Municipal Offices may be adopted as suggested.

(para 4.11)

9. For the public sector building activity, the existing arrangement of a separate cell in the State Public Works Department may continue. However, only projects with an estimated cost of Rs.50,000 and over may be covered by the reporting system and returns may be submitted only once a year.

(para 4.12)

10. The Three-Tier Scheme, it is felt, did not really do well because of the serious financial difficulties faced by the States in continuing the scheme as originally envisaged. The Ministry of Works and Housing may revive this project as a new centrally-sponsored plan scheme, so that it can be uniformly and simultaneously implemented in all the States.

(para 4.13)

11. Data on building material can be obtained for a substantial part of the unorganised sector by the State Directorates of Industries and the Development Commissioner, Small Scale Industries at the Centre. These agencies should be requested to compile data on production of building materials separately.

(para 4.14)

12. Until detailed and complete statistics of production of building materials become available, consumption statistics have to be relied upon. In this situation, the proposed NSS survey can provide adequate information for the unorganised sector, particularly, the household sector.

(para 4.15)

13. There is need for regular collection and maintenance of data on prices of building materials and wages of building labour for the construction of index number of building costs and for measuring the value of construction at constant prices. The programme initiated by the N.B.O. some time ago for collection of data on retail prices of building materials may be expanded to cover all major building materials with more representative coverage of price collection centres in each State.

(para 4.16)

14. The recommendations of the sub-group on Index Number and Construction Costs may be adopted. Independent indices may be compiled for residential and non-residential buildings and among them separately for pucca, semi-pucca and kutcha buildings. The N.B.O., C.S.O. and the Planning Commission should work together in resolving the technical and data problems encountered in the compilation of these index numbers.

(para 4.17)

15. Research studies and surveys on socio-economic and other aspects of housing should be taken up as a part of the regular work programme of the Socio-Economic Division of the N.B.O. The Division may devote itself only to desk studies, leaving any major field investigations to other institutions. An inter-departmental steering group may be set up to decide the inter se priority among the various research studies.

(para 4.18)

16. The Ministry of Works & Housing should arrange for regular compilation of statistics relating to current building activity under various social housing schemes.

(para 4.19)

17. The Ministry of Works and Housing may create a small cell for coordinating the progress reports of all housing schemes for the economically weaker sections including the Social Housing Scheme and arrange for regular publication of such data. The results of the N.S.S. survey of slums in its 31st Round should be tabulated quickly to provide bench-mark information about current status of slum dwellers.

(para 4.19)

18. A beginning with regard to collection of land prices should be made by arranging this first in the urban conglomeration with the help of the Local-Self Government Offices, Improvement Trusts and Real Estate Agents. Appropriate guidelines and procedures may be formulated to ensure uniform collection of land prices throughout the country.

(para 4.20)

19. The N.B.O. may set up a comprehensive data bank which will systematically compile and store all relevant statistics on housing and building construction, flowing from various sources. It would be preferable to use modern methods of storage and retrieval such as a computer-based information system. However, a beginning could be made with a manually operated system.

(para 4.21)

20. The set of concepts and definitions recommended by the Group may be adopted uniformly by all agencies responsible for collection of housing and building statistics.

(para 5.2)

21. For a successful implementation of the various schemes, it is necessary to strengthen the existing organisational arrangements, both in the States and at the Centre and provide adequate financial support. Housing being a State subject, the need for such measures at the State level assumes even greater importance.

(para 6.1)

22. The SSBs should be entrusted with the full responsibility of directing and coordinating all the State level activities in the field of housing statistics. The Bureaus will have to be strengthened for this purpose with a senior officer exclusively in charge of housing and building statistics and peripatetic staff for the collection of primary information from the smaller municipalities and additional staff for training, supervision and tabulation and analysis of data.

(para 6.2)

23. If the Census and Survey Organisations concerned give a low priority to the tabulation of data on housing and building activity, the National Buildings Organisation may be enabled to undertake this work on its own or arrange for it elsewhere by meeting the cost involved.

(para 6.4)

24. The N.B.O. will have to play a more active role in liaising with the SSBs as well as a number of other agencies at the Central level. The Socio-economic Division of N.B.O. should be adequately strengthened to provide leadership and overall direction in the field of housing and building statistics and to assist the Ministry of Works and Housing on all economic issues relating to housing policies and programme.

(para 6.5)

Summary Record of the first meeting of the
Advisory Group on Housing Statistics held
on 27.10.75

Present

- | | <u>Chairman</u> | <u>Others</u> |
|---|-----------------|--|
| 1. Shri V.R. Rao,
Director,
Central Statistical Organisation,
and Addl. Secretary, Deptt. of
Statistics | | 1. Dr. M. Holla,
O.S.D.,
C.S.O. |
| 2. Shri Rabindar Singh, Member
Director, N.B.O. | | 2. Shri S. Bhattacharya,
N.S.S.O. |
| 3. Shri R.D. Gandhi, Member
Director,
Bureau of Economics &
Statistics,
Gandhinagar (Gujarat) | | 3. Shri K. Kumar,
Dy. Director (SE)
N.B.O. |
| 4. Shri T.P. Abraham, (Rep: NSSO)
Director,
Survey Design and Research Divn.
N.S.S.O., Calcutta. | | 4. Shri S.N. Narang,
Dy. Director (SE)
N.B.O. |
| 5. Shri K. Biswas, Member
Deputy Secretary,
Ministry of W & H,,
New Delhi. | | 5. Shri M. Gangadharan,
Dy. Director (SE)
N.B.O. |
| 6. Shri K.S. Natarajan, (Rep:R.G. of India)
Senior Research Officer,
Registrar General of India | | |

Shri V.V. Divatia, Statistical Adviser, R.E.I. and Dr. Y.K. Alagh, Adviser (PP), Planning Commission could not attend the meeting due to pre-occupations.

The Director, N.B.O. welcomed the members to the first meeting of the Advisory Group and remarked that the advice given by the experts would be very helpful in the proper developments of statistical base for housing.

2. Shri V.R. Rao, Chairman in his opening remarks endorsed the views of the Director, N.B.O. about the importance of housing statistics for the purpose of planning. He thought it would be useful if the committee could first identify the users' requirements in some detail so that an appropriate infra-structure for collection of statistics could be

built up in the light of these requirements having regard to the resources available with the State Governments and the N.S.S.O.

3. Shri Kumar gave a brief description of the current status of the housing statistics and problems faced in the collection of data. Shri Narang indicated the work undertaken in the N.B.O. in regard to the research studies on socio-economic aspects of housing.

4. Shri Abraham, Director, Survey, Design & Research Division, N.S.S.O., informed the Advisory Group that the tabulated results of the data collected in the 28th round on housing condition would be available by the middle of 1976. For any additional special tabulation, a request would have to be made to the NSSO Governing Council. He also mentioned that NSSO did not propose to undertake tabulation of data collected on housing condition in earlier rounds. In regard to the statistics of production of building materials in unorganised sector, such as, bricks and lime, the Chairman requested Shri Abraham to examine the possibility of tabulating this information from the data collected during the 29th round. The NSSO may also be requested to give priority to the tabulation of data on building activity collected during the listing stage.

5. Shri Gandhi, Director, Bureau of Economics and Statistics, Gujarat stated that in the public sector the break-down of the value of work done into (i) building (ii) sanitary and water supply; and (iii) electrical installation was not available. He further stated that municipal bye-laws were not uniform in the Gujarat State. He felt that although local authorities had the necessary powers to ask for the statistics but they did not attach importance to this type of work. He further said that there was lack of statistical agency in municipalities to undertake the statistical work.

6. Shri Biswas suggested that an inventory of data already collected on housing particularly, by the planning and development authority established in a number of cities, research institutions, Ph.D dissertation on housing in universities, etc. might be useful. Shri Narang informed the Group that an inventory of studies/surveys on housing conducted by research institutes and universities was compiled by N.B.O. some time back.

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7. Shri K.S. Natarajan informed the Group that the data collected on housing under the houselisting operations of the population census were available on tapes. Any further tabulation required by the N.B.O. could be had from those tapes. In regard to classification of the vacant houses by reasons, it might not be possible to obtain it from the census as the information had not been transferred to tapes. However, in view of the importance of this information as brought out by N.B.O. and Shri Gandhi, some other method could have to be evolved. The Chairman stated that personally he was inclined to support a full-fledged housing census in 1981.

8. While considering the requirements of housing statistics in general, the Chairman suggested that they could be divided under two heads: (i) those dealing with fact finding (i.e. the collection of statistics); and (ii) those relating to evaluation studies etc. In regard to the first category he requested the organisations to give their views on the type of the statistics needed at macro and micro level, the periodicity etc. as that would help in examining how much of additional statistics on housing required to be collected. It was agreed that detailed notes would be prepared on the following items for further consideration of the committee at its next meeting.

(i) A note on data collected on housing in population censuses in India vis-a-vis the recommendations of United Nations.

(Action: Office of the R.G.)

(ii) A note to be prepared by N.B.O. on the inventory of studies/surveys on housing available with planning and development authorities, research institutes, universities etc.

(Action: N.B.O.)

(iii) A note spelling out in detail the items of information required, the periodicity, the level and the priorities.

(Action: NBO, C.S.O., RBI, SSB, Gujarat, Planning Commission, Ministry of Works & Housing)

9. It was decided that the next meeting of the Advisory Group might be convened by the middle of December, 1975.

7. Shri K.S. Natarajan informed the Group that the data collected on housing under the houselisting operations of the population census were available on tapes. Any further tabulation required by the N.B.O. could be had from those tapes. In regard to classification of the vacant houses by reasons, it might not be possible to obtain it from the census as the information had not been transferred to tapes. However, in view of the importance of this information as brought out by N.B.O. and Shri Gandhi, some other method could have to be evolved. The Chairman stated that personally he was inclined to support a full-fledged housing census in 1981.

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(iii) A note spelling out in detail the items of information required, the periodicity, the level and the priorities.

(Action: NBO, C.S.O., RBI, SSB, Gujarat, Planning Commission, Ministry of Works & Housing)

9. It was decided that the next meeting of the Advisory Group might be convened by the middle of December, 1975.

Summary Record of the Second meeting of the
Advisory Group on Housing Statistics held on
5th August, 1976 at 2.30 P.M.

Present

- | | |
|---|---|
| 1. Shri V.R. Rao,
Director,
Central Statistical Organisation, &
Additional Secretary,
Department of Statistics. | Chairman |
| 2. Shri V.V. Divatia,
Statistical Adviser,
Reserve Bank of India | Member |
| 3. Shri G.C. Mathur,
Director,
N.B.O. | Member |
| 4. Shri G. Jas,
Director (Housing),
Ministry of W & H. | Member |
| 5. Shri T.P. Abraham,
Director,
Survey Design and
Research Division,
N.S.S.O. | vice Shri S.C. Chaudhri, Member
Chief Executive
Officer,
N.S.S.O. |
| 6. Shri S.D. Christi,
Deputy Director,
Bureau of Economics &
Statistics,
Gandhinagar (Gujarat) | vice Shri P.B. Buch, Member
Director,
Bureau of Economics &
Statistics,
Gandhinagar (Gujarat) |
| 7. Shri K.S. Natarajan,
Senior Research Officer
Registrar General of
India | Vice Shri R.B. Chari, Member
Registrar General
of India |
| 8. Shri B.N. Nair,
Joint Director(SE),
N.B.O. | Member Secretary |

Others (in attendance)

- | | |
|---|--|
| 1. Dr. M. Holla,
Joint Director,
C.S.O. | 2. Shri K. Kumar,
Deputy Director(SE)
N.B.O. |
|---|--|

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Director,
Central Statistical Organisation, &
Additional Secretary,
Department of Statistics. | Chairman |
| 2. Shri V.V. Divatia,
Statistical Adviser,
Reserve Bank of India | Member |
| 3. Shri G.C. Mathur,
Director,
N.B.O. | Member |
| 4. Shri G. Jas,
Director (Housing),
Ministry of W & H. | Member |
| 5. Shri T.P. Abraham,
Director,
Survey Design and
Research Division,
N.S.S.O. | vice Shri S.C. Chaudhri, Member
Chief Executive
Officer,
N.S.S.O. |
| 6. Shri S.D. Christi,
Deputy Director,
Bureau of Economics &
Statistics,
Gandhinagar (Gujarat) | vice Shri P.B. Buch, Member
Director,
Bureau of Economics &
Statistics,
Gandhinagar (Gujarat) |
| 7. Shri K.S. Natarajan,
Senior Research Officer
Registrar General of
India | Vice Shri R.B. Chari, Member
Registrar General
of India |
| 8. Shri B.N. Nair,
Joint Director(SE),
N.B.O. | Member Secretary |

Others (in attendance)

- | | |
|---|--|
| 1. Dr. M. Holla,
Joint Director,
C.S.O. | 2. Shri K. Kumar,
Deputy Director(SE)
N.B.O. |
|---|--|

3. Shri S.N. Narang,
Deputy Director(SE)
N.B.O.

4. Shri M. Gangadharan,
Deputy Director(SE)
N.B.O.

Dr. Y.K. Alagh, Adviser (PP) Planning Commission was given leave of absence.

The Director, NBO welcomed the members and requested Shri V.R. Rao, Chairman to conduct the meeting.

2. The Chairman in his opening remarks recapitulated the discussion that took place in the last meeting. He mentioned that it was decided that three separate notes may be prepared on.

(i) Data collected on housing in population census vis-a-vis U.N. recommendation;

(ii) An inventory of studies/surveys already conducted on housing in India; and

(iii) Data requirements of the users organisations.

3. The Chairman expressed his satisfaction that all the three notes were available for discussion in the present meeting.

4. The Chairman then referred to the recommendations of the ad-hoc Group on Housing and Construction Statistics set up by the C.S.O. to examine the feasibility of data collected by the N.S.S.O. on construction. He mentioned that the Group has recommended the conducting of a full-fledged enquiry by NSSO once in five years on construction covering both building and non-building activities undertaken by the households including information on items of housing condition, input and output structure, investment in and financing of building construction.

5. The Chairman also mentioned that the data on certain items like house construction and value of new construction are also intended to be collected annually through NSSO either in the house listing schedule or in a separate household block designed for that purpose. He said that the report of the ad-hoc group will be submitted very shortly and he is hopeful of its acceptance. The Chairman felt that the implementation of the recommendation would meet the major part of the requirements of data on housing.

6. The Chairman said that the items not covered in the NSSO enquiry relate to housing census, the NBO's Three-tier scheme and production, consumption and distribution of building materials. He, thereafter, invited the comments of the members of the Advisory Group.

3. Shri S.N. Narang,
Deputy Director(SE)
N.B.O.

4. Shri M. Gangadharan,
Deputy Director(SE)
N.B.O.

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7. Shri V.V. Divatia, Statistical Adviser, Reserve Bank of India, stated that in addition to what he had already spelt out in his note on data requirements, he would like to emphasise the need of developing an index number of wholesale prices of building materials for using as a deflating factor for estimation of national income and capital formation at constant prices. He also wanted special consideration in collection of data on housing of economically weaker sections.
8. The Chairman informed the Group that all important building materials except sand are presently included in the index of wholesale prices compiled by the Economic Adviser's office and this, he thought, could be made use of in compiling an all-India index. He stated that there is also a proposal for collection of wage data including the wages of building labour as a part of the programme of collection of price and wage statistics by the NSSO. In this connection, the Chairman also mentioned the data collected by the NBO on the prices of building materials and wages of building labour which are available for 4 or 5 important centres in each State.
9. The Group felt that the weights assigned to building materials in the Economic Adviser's index may not be suitable for compiling an all-India index to be used as a deflating factor. Shri Gangadharan, Deputy Director(SE) apprised the Group about the NBO's efforts in compiling residential building cost index number for Delhi and for other centres through the cooperation of the State Govts. Perhaps, the centrewise indices could be combined to make an all-India index. The Chairman desired that a detailed note on this subject may be prepared by the NBO for discussion in the next meeting.
10. Shri B.N. Nair, Joint Director(SE) mentioned about the methodology of construction indices followed by the planning authority of the Soviet Union and he thought that it would be useful to study it.
11. The possibility of conducting the housing census in 1981 was then examined. The Chairman said that personally he would support the conducting of housing census in 1981 but its justification would depend on the level at which the data are required.

12. Shri T.P. Abraham, Director, Survey Design and Research Division, NSSO felt that the quinquennial sample survey proposed to be undertaken by the NSSO should suffice as it would provide data on all aspects of housing including facilities and amenities available to the households. But it was pointed out that the NSS surveys do not provide estimates at the lower level. The estimates are available only for region, state and all India.

13. Shri B.H. Nair, Joint Director(SE) mentioned about the availability of data in the village surveys undertaken by the Agro-Economic Centres and the possibility of utilising their services for collecting data at the grassroot level.

14. Shri G. Jas, Director(Housing), Ministry of Works & Housing said that for formulating the programmes of urban development the data are needed for individual villages, surrounding the urban centres, and hence he felt that there is a need to conduct the housing census in 1981.

15. Shri G.C. Mathur, Director, N.B.O. was of the view that for planning house construction, the data would be needed at the lowest level for making maximum use of the local building materials and the prevalent type of construction in that area.

16. Shri Natarajan, Senior Research Officer, Office of the Registrar General of India wanted the requirements to be examined in terms of availability of resources. The Chairman desired a detailed note to be prepared by the Office of the Registrar General of India, in consultation with NBO and CSO for discussion in the next meeting indicating (i) the items that could be collected in the housing census; (ii) the cost involved in enumeration and tabulation; and (iii) in case it is decided to cover a limited set of items on the census basis and the remaining on sample basis, what should be the item coverage in 'census' and in 'sample'.

17. The Advisory Group then took up for discussion the NBO's Three-tier scheme. While the Chairman appreciated the need and importance of data on current housing statistics and considered the scheme as irreplaceable, he wanted to know why the scheme had not progressed.

18. Shri S.D. Christi, Deputy Director, Bureau of Economics and Statistics, Gujarat explained the difficulties experienced in obtaining the statistics from the municipalities. He stated that the issue of completion certificates is not strictly enforced and the municipalities are lukewarm in furnishing the

data. Even in the municipalities where statistical cells exist the furnishing of data on housing does not form part of their function. The compilation of data on housing is done by the building department. He also mentioned some difficulty in coordinating the data from Public Works Department, Shri Divatia was of the view that beginning may be made by covering larger urban centres and in this context he suggested the adoption of sampling. Shri Christi also wanted that the data collection on the private sector may be restricted to bigger and medium sized towns which cover 70-90 percent of building construction activity.

19. Shri Gangadharan, Deputy Director(SE), NBO stated that about a year back the State Statistical Bureaus were requested to intimate the problems and difficulties faced by them in the collection of data through Three-tier scheme. Many of the States gave lack of availability of adequate finances as a reason which came in the way of implementation of the scheme. He gave the example of Rajasthan where the scheme has been disbanded due to the reason of economy. Other States like Uttar Pradesh etc. are also considering to discontinue the scheme. He further stated that some States suggested the return for the public sector to be made annual, instead of half yearly and the limit of Rs.20,000 may be raised to Rs.50,000.

20. Shri Mathur, Director, NBO remarked that as the housing statistics collected by Cells are of great use to the States also they should take interest in this work.

21. The Chairman said that through the Three-tier scheme our aim should be to obtain basic minimum information such as number of building plans sanctioned, floor/plinth area and the value of construction.

22. Shri Narang, Deputy Director(SE) informed the Group that the NBO's three-tier scheme seeks only that much information which the Chairman has termed as 'basic'. The information to be given by the private builder on estimated cost (value of construction) is not compulsory. Shri Narang further stated that the schedule for the private sector was finalised after making pilot studies in selected municipalities in the country.

23. The Chairman desired a study to be taken up about the records maintained by the municipalities in regard to building construction and the type of returns prepared for submission to other agencies. He thought that it is just

possible the information needed by us may be available in these returns and can be culled out from there. The Chairman further desired that a letter may be addressed to the State Statistical Bureaus if need be under his signature, eliciting their suggestions for making the Three-tier scheme effective in collecting the data on housing and at the same time requesting them also to apprise us about the use to which the data can be put by them.

24. While discussing the statistics about the production of building materials in the unorganised sector, it was felt that it is difficult to organise the collection of information on this aspect. For the present, the collection of statistics of consumption of building materials was considered to be sufficient. This information would become available through NSS surveys.

25. In regard to the note prepared by the NBO on inventory of research project the Chairman said that it could be taken for discussion in the next meeting. For the item on 'statistics from local bodies' proposed by the CSO the Chairman remarked that he would get it re-examined in CSO.

26. The Chairman said that another task assigned to the Group relates to the standardisation of concepts and definitions used in the collection of data on housing. He desired that a note may be prepared by the NBO incorporating the international recommendations, the definitions used by the office of the Registrar General of India, NSSO and other agencies for discussion in the next meeting.

27. For the next meeting, the following detailed notes are required to be prepared for consideration of the Advisory Group.

- (i) A note on the compilation of building cost index number.

(Action: NBO)

- (ii) A note on feasibility of undertaking a housing census in 1981.

(Action: R.G. in consultation with NBO & CSO)

- (iii) A note on Current Housing Statistics based on the replies received from the State Govts.

(Action: NBO)

- (iv) A note on concepts and definitions used in the collection of data on housing.

(Action: NBO)

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28. In regard to the extension of the term of the Advisory Group it was agreed that the extension may be sought upto the end of January, 1977.

The meeting concluded with a vote of thanks to the Chairman.

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Summary Record of Discussions

The Third meeting of the Advisory Group on Housing Statistics was held on 3 December 1976 in the Committee Room of the Central Statistical Organisation (CSO), under the chairmanship of Shri V.R. Rao, Director, CSO and Additional Secretary, Department of Statistics.

The list of participants is enclosed. Shri K.P.N. Nair, Adviser, Reserve Bank of India could not participate in the discussions. He, however, met Shri V.R. Rao and Shri B.N. Nair on December 3 and 4, 1976 respectively to give his observations on the various agenda items. A note on the discussions he had with Shri Nair is enclosed.

Welcoming the participants, the Chairman, at the outset, complimented the secretariat for the excellent documentation of the items on agenda and initiated the discussion on organisational operational and technical aspects of the 3-tier scheme of the NBO. Shri Biswas observed that it might be possible to issue instructions to the local bodies to amend their building bye-laws through the State Governments to provide for compulsory issue of completion certificates after construction of houses is completed. The matter might, however, also be raised at the Local Self-Government Ministers conference to request them to pass suitable resolution to this effect. Shri G.C. Mathur remarked that with the implementation of the national building code, it might be possible to collect housing and building statistics both in the public and private sectors with the help of the municipalities.

There was considerable discussion on the current practice of collection housing statistics at the time of authorisation of the plan and also at the time of completion/occupancy of the building. It was recognised that the data on authorisation would give an idea of the intentions and would be useful for the purpose of forecasting. Dr. Alagh also held the same view. It was, however, agreed that the present practice of collection of data at the time of authorisation and completion might continue.

The need for providing the necessary financial assistance/incentives to the States/local bodies and PWD was then raised by the Chairman. As there was no provision in the Fifth Plan, Shri Biswas remarked that some specific projects could be taken up on the basis of payment of honorarium. The Chairman remarked that objective was to set up a statistical machinery on a regular basis and it was not an adhoc arrangement for

specific project. Dr. Alagh felt that the technical Group may recommend the financial assistance for a proposal for the preliminary work for the Sixth Plan, if the various contents of the proposal are properly spelt out. Meanwhile, the NBO could utilise the amount provided for improvement in housing statistics in its annual budget for payment of honorarium to the staff collecting the information in municipalities and PWDs.

The Group recognised the role of NBO to function as a national agency for coordinating and collecting housing and building statistics. The Group, however, decided to discuss the whole organisational arrangements later after the finalisation of the work programme for the improvement of housing statistics.

The Group reviewed the coverage and periodicity of collection of housing statistics and agreed that the larger municipalities should be covered on a regular basis and other municipalities should be covered over a period of two to three years in rotation on a sample basis. It might not be possible to collect information on unauthorised construction and building activities in the periphery of the municipal limits. The number of electric connections given during a period could give some idea of the new houses/buildings completed in the periphery of the municipal limits.

The Group finally decided to recommend that

- (i) Data should be collected on an annual basis both in respect of the public and private sectors, corresponding to the financial years.
- (ii) Larger municipalities in terms of building construction activities should be covered on regular basis, where as other municipalities should be covered over a period of two to three years in rotation on sample basis for collection of housing statistics.
- (iii) A suitable scheme for payment of honorarium as an incentive to the non-statistical staff in the local bodies and Public Works Departments may be worked out. The staff of the State Statistical Bureau should visit the municipalities and PWDs officers to assist them in compiling the information.

(iv) There should be adequate statistical machinery for collection of statistics which should be supported by both the Centre and the States.

(v) The State Statistical Bureau should be responsible for schemes in the States.

Index
Numbers

The Chairman while referring to the development of index number of wholesale prices of building materials and construction of building cost index numbers wanted to know the views of the members on the following: (a) whether the index should be based on retail or wholesale prices? (b) should it include labour component separately or there should be combined index for both material and labour? (c) what should be the weighting diagram?

Smt. Uma Roy Chaudhry mentioned that CSO was presently making use of the index number for pucca houses, kutcha houses, road construction, etc. in the estimation of national income through commodity flow approach and desired that the index should be based on retail prices. She also mentioned the need for index number of repairs and maintenance of buildings.

Dr. Alagh was of the view that it is not desirable to have single index due to major differences in the inputs in different types of construction. He suggested that in the first instance, a list should be prepared of all items for which prices data are received for different kinds of construction activity. After some discussion, it was agreed that the number of index numbers may have to be limited and separate index number might be prepared for (a) residential houses, (b) RCC frame construction, (c) load bearing walls and factory buildings. Separate index would likewise be required for roads and rail construction. A Sub-Committee consisting of representatives from CSO (Smt. Uma Roy Chaudhry), NBO and PP Division of Planning Commission may give more thought to this problem and come up with their suggestions and proposals before the Advisory Group.

Housing
Census

The Group also had for its consideration a Working Paper on the housing census prepared by the Office of the Registrar General, India. Shri Chakravarty while introducing the paper mentioned that there was no Act for Housing Census and gave an account of the data collected at the time of house-listing in the programme of 1961 and 1971 population censuses. He also mentioned that additional tabulation of the data already collected might be considered, if

need be, in June 1977. He felt that it might be considered, feasible to undertake a restricted census with a limited number of items. The Group observed that all the items proposed by NBO, ESCAP, UN may not be relevant and the following could be excluded. (a) age of the house, (b) type of living quarters, (c) state of repairs, (d) type of ownership, (e) type of fuel used for cooking, (f) occupation. It was agreed that information on (a) dwelling units with electricity connections, (b) sources of drinking water supply, (c) toilet facilities (urban areas only) should be useful and might be collected.

The Advisory Group generally agreed to recommend the housing census in 1981 with the restricted item coverage. It was decided that the office of the Registrar General, India might look into this financial estimates prepared earlier in the light of the deliberations of the Group.

Concepts and Definitions The Group noted the concepts/definitions in housing and construction statistics currently being used by the RGI, NSSO and NBO and desired to refer the subject to a Sub-Committee of the Advisory Group consisting of the representatives of the CSO (Dr. M. Holla), Registrar General of India, NBO and NSSO. The Committee was asked to keep in view the U.N. recommendations while formulating its recommendation to schemes for international comparability as far as possible.

Research Studies etc. It was decided that NBO should bring out periodical inventories of research studies with a brief summary of the studies. The Chairman desired that NBO might attempt a list of typical studies relating to different aspects of housing and also examine the feasibility of undertaking such studies. This could give direction to the future programme on socio-economic studies of the NBO.

Statistics of housing for economically weaker sections It was observed that there was no single agency for coordinating the housing statistics for the programmes being undertaken for the economically weaker sections under different schemes. Such an agency is important and the Chairman desired that a note to be prepared to bring out the present status of collection of these data. It was however noted that the data on housing collected by the Census Office might also be tabulated for scheduled caste/scheduled tribe. Similarly, the data on housing conditions collected by the NSSO, when tabulated by expenditure group would provide information for the economically weaker sections of the population.

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It was decided that the following papers may be prepared for the consideration of the Group for its next meeting.

- (i) Report of the sub-group on concepts and definitions.
(Action: NBO)
- (ii) A note on the Building cost Index Numbers
(Action: Mrs. Uma Roy Choudhry)
- (iii) A note on present status of collection of data for economically weaker section.
(Action: NBO)
- (iv) A paper listing the studies in socio-economic and allied aspects of housing to supplement housing statistics.
(Action: NBO)

The meeting ended with a vote of thanks to the Chair.

-(41):-

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(i) Report of the sub-group on concepts and definitions.

(Action: NBO)

(ii) A note on the Building cost Index Numbers

(Action: Mrs. Uma Roy Choudhry)

(iii) A note on present status of collection of data for economically weaker section.

(Action: NBO)

(iv) A paper listing the studies in socio-economic and allied aspects of housing to supplement housing statistics.

(Action: NBO)

The meeting ended with a vote of thanks to the Chair.

Summary record of 3rd meeting of the Advisory Group on Housing Statistics held on 3rd Dec., 1976 in C.S.O.

Present

S/Shri

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| 1. | V.R. Rao, Director,
Central Statistical Orgn. &
Additional Secretary,
Department of Statistics. | Chairman |
| 2. | Dr. Y.K. Alagh,
Adviser (PP Division),
Planning Commission | Member |
| 3. | K. Biswas, Director (UD) Ministry of Works & Housing | <u>Vice</u>
Shri G. Jas, Member
Director
(Housing),
Min. of W&H |
| 4. | G.C. Mathur,
Director,
National Buildings Orgn. | Member |
| 5. | T.P. Abraham,
Director, Survey,
Design & Research
Division | <u>Vice</u>
Shri G.C. Member
Chaudhri,
Chief Execu-
tive Officer,
N.S.S.O. |
| 6. | K.K. Chakravorty,
Asstt. Registrar
General | <u>Vice</u>
Shri R.B. Member
Chari,
Registrar
General of
India |
| 7. | S.D. Christi, Deputy
Director, Bureau of
Economics & Statistics,
Gujarat. | <u>Vice</u>
Shri G.S. Shah, Member
Director,
Bureau of
Economics &
Statistics |
| 8. | B.N. Nair, Joint Director(SE)
National Buildings Organisation | Member-Secretary |

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Others (in attendance)

1. Mrs. Uma Roy Choudhry,
Joint Director, C.S.O.
2. Dr. M. Holla, Joint Director,
C.S.O.
3. Shri K.N. Shrinivasan,
Deputy Director, C.S.O.
4. Miss. Suguna Kumari,
Deputy Director, C.S.O.
5. Shri J.N. Taneja,
Asstt. Director,
C.S.O.
6. Shri K.S. Natarajan,
Senior Research Officer,
Registrar General of India
7. Shri K. Kumar,
Deputy Director (SE)
National Buildings Organisation
8. Shri S.N. Narang,
Deputy Director (SE)
National Buildings Organisation
9. Shri S.M. Krishnamachar
Deputy Director (SE)
National Buildings Organisation
10. Shri A.N. Malik,
Research Officer,
National Buildings Organisation

Record of discussions between Shri K.P.N. Nair,
Reserve Bank of India and Shri B.N. Nair,
National Buildings Organisation, Member-
Secretary, Advisory Group on Housing Statistics
on 4.12.1976

Shri Divatia could not attend the meeting of the Advisory Group on Housing Statistics on 3rd December, 1976 due to personal reasons and, therefore, deputed Shri K.P.N. Nair to represent him. Unfortunately, his plane was delayed and he arrived in Delhi late and was unable to attend the scheduled meeting. Shri Nair, however, called on Director, Central Statistical Organisation on 3.12.76 and Shri B.N. Nair in the N.B.O on 4.12.76. Shri S.N. Narang, Deputy Director, N.B.O was also present during the discussion.

Shri B.N. Nair apprised Shri K.P.N. Nair about the discussion in the meeting on 3.12.76 and requested him to give his requirements and reactions. Shri K.P.N. Nair suggested that:

- i) It will be desirable to have index numbers of building costs for different types of buildings and not just for one building as suggested by N.B.O. in different centres.
- ii) It is essential that data on "starts of buildings" (with break up for residential and non-residential buildings) are collected and published with minimum of time lag at least in respect of larger urban centres.
- iii) Follow up sample surveys should be conducted to build up norms for pattern of investment in the private sector so that value of construction put in place during a given period could be estimated.
- iv) It is necessary that data on land prices are also collected along with those on building materials and wage rates in the centres for which building cost index numbers are proposed to be constructed, as land is a very important component of investment in buildings.
(in the next meeting of the Advisory Group)

While agreeing in general to the suggestions of Shri K.P.N. Nair, J.D.(SE) stated that the record of their discussion will be circulated as an appendix to the record of the main meeting.

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Shri K.P.N. Nair promised to discuss with Shri Divatia and inform early about the representative of Reserve Bank of India, who will participate in meetings of the sub-group on concepts and definitions.

Summary Record of Discussions

The fourth meeting of the Advisory Group on Housing Statistics was held on 25th January 1977 in CSO under the Chairmanship of Shri V.R. Rao, Director, CSO and Additional Secretary, Department of Statistics. The list of participants is enclosed.

Report of Sub-Group on Construction Indices The Chairman initiated the discussion by inviting Smt. Uma Roy Choudhury to apprise the Group about the salient features of the recommendations on the construction of building cost index number. The members were in general agreement with the guidelines suggested. The Chairman, however, felt that the compilation of indices should be restricted to only a few types of constructions and desired that the sub-group might suggest a minimum list of indices for consideration of the Group.

Report of Sub-Group on concepts & definitions In regard to concepts and definitions, the Chairman after the presentation of the Report by the Member-Secretary, observed that concepts and definitions for a large number of items are available as a part of the UN recommendations for the housing census. The CSO after careful consideration of these concepts and definitions vis-a-vis those followed by NSO, NSSO and RGI, has suggested definitions suitable for Indian conditions. The Chairman desired that the sub-Group might examine the list for adoption for the collection of housing data.

Collection of data on E.W.S. About present status of collection of data for economically weaker sections, the Chairman wanted to know the adequacy of the existing arrangements of reporting and also whether there is a single agency to coordinate and process the progress reports. Director(Housing) indicated that till such time when the schemes were linked with financial assistance, the receipt of progress reports from the States was regular and timely. But after the delinking of the central assistance, there has been set back in the regard. He felt that the steps taken by the Ministry of Works and Housing in the past few months as well as in the State Housing Ministers' Conference, would put pressure on the States to send the progress reports periodically. These reports are tabulated in the Ministry. He opined that the stage has not arisen to develop the work further as the time has not come to evaluate social housing schemes. The Chairman, however, felt that the periodical reporting should be made more effective and the reports brought out more frequently.

The Group felt the need for undertaking research studies and surveys on socio-economic aspects of housing to supplement the housing statistics and appreciated the Secretariat for drawing a list of such studies. The Chairman, however, desired that these studies should not be desk-oriented; rather they should be typical, unduplicated case studies, involving some field investigation, in areas of current interest, directed towards policy matters relating to socio-economic aspects of housing. He desired that such studies should be identified and inter se priority allotted and a work programme for a period of, say, 5 years might be drawn. The members were, therefore, requested to examine the list of studies and intimate their views in this regard. It was also decided that when the studies are formulated, a Steering Group with representatives from concerned organisations may be formed to provide guidance for undertaking the studies.

While discussing the overall administrative arrangements required for collection, compilation and analysis of housing and building statistics, the Chairman stated that the functions presently discharged by the Socio-Economic Division relate to:

- (i) Collection, coordination and analysis of housing statistics including the primary tabulation of data;
- (ii) Organisation of surveys and socio-economic studies;
- (iii) Rendering advice to the Ministry of Works & Housing on socio-economic matters; and
- (iv) Conducting training courses, seminars and other related activities.

The Chairman felt that the Group should specify the functions of the division and indicate the level at which the division should function, vis-a-vis other organisations dealing with similar topics. In this connection, the Chairman desired that a detailed note may be made available giving the present functions and the set up required for undertaking the work programme envisaged by the Group.

In the context of the recent creation of a National Institute of Urban Affairs, it was agreed that the

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Socio-Economic Division may confine its activity to Housing and Urban Development sectors only for the time being.

Outline
of
Report

The Chairman desired that discussion on the current status of housing statistics and its historical development should appear briefly in the Report and the Report may cover more or operative aspects rather than a description of the statistics.

Final
meeting
and sub-
mission
of the
Report

Finally, the Chairman desired that the report should be submitted to the Government by 15th February, 1977. In order to finalise the report another meeting may be called on 1st February, 1977.

Annexure

List of participants in the Fourth Meeting of the Advisory Group on Housing Statistics held on 25th January, 1977, in C.S.O.

Present

S/Shri

1. V.R. Rao, Chairman
Director,
Central Statistical Organisation &
Adl. Secretary,
Department of Statistics,
New Delhi.
2. Dr. K.C. Majumdar, Vice Dr. Y.K. Alagh, Member
Director (PP Division) Advisor
Planning Commission, (PP Division)
New Delhi. Planning Commission,
New Delhi.
3. G. Jas, Member
Director(Housing),
Ministry of Works & Housing,
New Delhi.
4. K.P.N. Nair, Vice V.V. Divatia, Member
Adviser, Statistical
Reserve Bank of India, Adviser,
Bombay. Reserve Bank of
India, Deptt.
of Statistics,
Bombay.
5. S.C. Sharma, Vice S.C. Chaudhri, Member
Officer on Special Duty, Chief Executive
N.S.S.O. Officer,
New Delhi. N.S.S.O. N. Delhi
6. K.S. Natarajan, Vice R.B. Chari, Member
Sr. Research Officer, Registrar
Office of Registrar General of India,
New Delhi. India,
New Delhi.
7. S.D. Christi, Vice G.S. Shah, Member
Dy. Director, Director,
Bureau of Economics & Bureau of
Statistics, Economics &
Gandhinagar (Gujarat) Statistics,
Gandhinagar (Gujarat)

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8. B.N. Nair,
Joint Director(SE),
N.B.O.

Member-Secretary

Others (in attendance)

1. Mrs. Uma Roy Choudhry,
Additional Director,
C.S.O.
2. Dr. M. Holla,
Joint Director,
C.S.O.
3. Miss Suguna Kumari,
Deputy Director,
C.S.O.
4. Shri K. Kumar,
Deputy Director,
N.B.O.
5. Shri S.N. Narang,
Deputy Director,
N.B.O.
6. Shri S.M. Krishnamachar,
Deputy Director,
N.B.O.
7. Shri A.N. Malik,
Research Officer,
N.B.O.

Shri G.C. Mathur, Director, N.B.O. could not attend the meeting due to preoccupation.

Summary Record of Discussions

The fifth meeting of the Advisory Group on Housing Statistics was held on 1st February 1977 in CSO under the Chairmanship of Shri V.R. Rao, Director, CSO and Additional Secretary, Department of Statistics. The list of participants is enclosed.

2. The Chairman initiated the discussion by inviting Smt. Uma Roy Choudhry to apprise the Group about the categories of the construction activities for which the indices are to be prepared. The Group approved the list drawn up by Smt. Roy Choudhry with the modification that pucca buildings should be further split up by (a) RCC frame and (b) load bearing walls.

3. The residential building cost index number, compiled by the SSBs at the instance of NBO, though centre specific, was found to be useful to the construction agency and other departments undertaking construction programmes. It was, however, desired that NBO might extend the coverage to more building materials like bamboo, steel structures, stone (chips, broken) water supply and electrical fittings and other materials normally used in construction work and collect the prices under uniform procedures so as to bring about comparability between the prices of different centres and States.

4. The Group endorsed the conclusions and recommendations of the sub-group on concepts and definitions.

5. Shri K.P.N. Nair (Reserve Bank of India) highlighted the importance of the data on land prices in the estimation of the total investment in buildings and other construction. Shri B.N. Nair, Member-Secretary, briefly reviewed on the basis of the earlier note the existing arrangement in the Ministry of Agriculture in regard to land reforms in rural areas and the work done in the Ministry of Works & Housing, NBO, TCPO about the land prices and expressed the view that the activities of these organisations would require coordination. In view of the inherent difficulties of organising the collection of data on land prices, the Group felt that this should be confined to urban agglomerations and semi-urban areas. The Group also identified the sources from which the data could be obtained.

6. The Group next took up the question whether it should consider the Organisational and administrative arrangements required to fulfil the work programme proposed by the Group. The Group was informed by the Director, NBO (Shri Mathur) and the Director, (H) (Shri Jas) that the Ministry of Works & Housing was already seized of this question and there should be no difficulty in appropriate augmentation of the existing staff when the recommendations of the Group on the work programme were accepted by the Government. The Group agreed that it need not make any specific recommendations in this regard as this was not one of its terms of reference.

7. The Group generally endorsed the usefulness of a comprehensive data bank being set up in the NBO. The Group was informed that the NBO has already a system of maintaining comprehensive documentations, bibliographies, etc. It was suggested that this system should be further expanded to include systematic collection, storage, maintenance and retrieval of all relevant statistical data.

8. The Chairman desired that the relevant paragraphs in the draft report may be revised in the light of discussions and circulated to the members for comments for consideration in the next meeting. The final meeting may be held some time in the month of February to finalise the Report.

List of participants in the Fifth Meeting of the
Advisory Group on Housing Statistics held on 1st
February, 1977, in C.S.O.

Present

S/Shri

1. V.R. Rao, Chairman
Director,
Central Statistical Organisation &
Additional Secretary
Department of Statistics,
New Delhi.
2. Dr. K.C. Majumdar, Vice Dr. Y.K. Alagh, Member
Director (PP Divn.) Adviser
Planning Commission, (PP Division)
New Delhi. Planning Commn.
New Delhi.
3. G. Jas, Member
Director(Housing),
Ministry of Works & Housing,
New Delhi.
4. G.C. Mathur, Member
Director, N.B.O.,
New Delhi.
5. K.P.N. Nair, Vice V.V. Divatia, Member
Adviser, Statistical
Reserve Bank of India Adviser, RBI,
Bombay Dept. of
Statistics,
Bombay
6. S.C. Sharma, Vice S.C. Chaudhri, Member
Officer on Special Chief Executive
Duty, N.S.S.O., Officer, N.S.S.O.
New Delhi. New Delhi
7. K.S. Natarajan, Vice R.B. Chari, Member
Sr. Research Officer, Registrar General
Office of Registrar of India,
General of India, New Delhi.
New Delhi.

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8. B.N. Nair,
Joint Director(SE),
N.B.O.

Member Secretary

Others (in attendance)

1. Mrs. Uma Roy Choudhry,
Additional Director,
C.S.O.
2. Dr. M. Holla,
Joint Director,
C.S.O.
3. Miss Suguna Kumari,
Deputy Director,
C.S.O.
4. Shri K. Kumar,
Deputy Director,
N.B.O.
5. Shri S.N. Narang,
Deputy Director,
N.B.O.
6. Shri S.M. Krishnamachar
Deputy Director,
N.B.O.
7. Shri Kailash Nath,
Research Officer,
N.B.O.

Shri S.D. Christi, Deputy Director, Bureau
of Economics & Statistics, Gandhinagar
(Gujarat) could not attend the meeting.

Summary Record of Discussions

The Sixth meeting of the Advisory Group on 'Housing Statistics' was held on 26th March 1977 in CSO under the Chairmanship of Shri V.R. Rao, Director, CSO and Additional Secretary, Department of Statistics to consider the draft report prepared by the Secretariat. The list of participants is enclosed.

The Chairman in his opening remarks stated that some reorganisation of the report is required and the repetition of points etc. deleted as far as possible. The report, he suggested, could have the following 6 chapters:

- (i) Introduction
- (ii) Current status of Housing Statistics and their shortcomings.
- (iii) Data requirements.
- (iv) Arrangements for data collection.
- (v) Organisational set up at the State and Centre; and
- (vi) Summary of conclusions and recommendations.

He further suggested that important Agenda papers may also be included as Appendices in the Report.

The Registrar General of India suggested that the report might also deal with the 'end uses' of housing statistics. The Director, NBO expressed the view that the importance of housing statistics along with the state of affairs in other countries should also be included in the report. It was agreed that the NBO would provide the necessary material in this regard for inclusion in the introductory chapter of the report.

There were no comments from the members about any substantive modification of the draft report other than those already forwarded. It was agreed that the comments sent by the representatives of RBI and the SSB, Gujarat could be kept in view while revising the draft. The suggestions of the Planning Commission for the inclusion of additional items in the housing census and the collection of data on consumption of building materials like cement and steel from the municipalities were not considered

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operationally feasible. These requirements could be mostly met by the proposed quinquennial survey of the NSSO on housing and construction.

The Director, NBO stated that housing statistics should also be re-oriented towards rural development, in view of its current importance. Various alternative sources for collection of data through village panchayats, Rural Development Departments of the State Governments were considered in this regard. The Chairman requested the NBO to furnish a note on the current status of statistics of rural housing, data requirements and arrangement for the collection of data, which could be included in the report.

The Chairman informed the Group that the Draft Report would be revised and sent to the members for comments and if necessary another meeting would be called for final adoption.

List of participants in the Sixth Meeting
of the Advisory Group on Housing Statistics
held on 26th March, 1977, in C.S.O.

Present

S/Shri

- | | | | |
|----|--|---|--------|
| 1. | V.R. Rao,
Director,
Central Statistical Organisation &
Additional Secretary,
Department of Statistics,
New Delhi. | Chairman | |
| 2. | G. Jas,
Director(Housing),
Ministry of Works & Housing,
New Delhi. | Member | |
| 3. | K.P.N. Nair,
Adviser,
Reserve Bank of India
Bombay. | <u>Vice</u> V.V. Divatia,
Statistical Adviser,
Reserve Bank of
India, Deptt. of
Statistics, Bombay. | Member |
| 4. | R.B. Chari,
Registrar General of
India,
New Delhi. | Member | |
| 5. | G.C. Mathur,
Director,
N.B.O. | Member | |
| 6. | S.C. Sharma,
Officer on Special
Duty, N.S.S.O.
New Delhi. | <u>Vice</u> S.C. Chaudhri,
Chief Executive
Officer, N.S.S.O.
New Delhi. | Member |
| 7. | Shailendra Sharma,
Sr. Research Officer,
Planning Commission,
New Delhi. | <u>Vice</u> Dr. Y.K. Alagh,
Adviser (PP Divn.)
Planning Commission,
New Delhi. | Member |
| 8. | B.N. Nair,
Joint Director (SE),
N.B.O. | Member Secretary | |

Others (in attendance)

1. Mrs. Uma Roy Choudhury,
Additional Director,
C.S.O.
2. Dr. M. Holla,
Joint Director,
C.S.O.
3. Shri K.S. Natarajan,
Senior Research Officer,
Office of Registrar General of India,
New Delhi.
4. Shri K. Kumar,
Deputy Director,
N.B.O.
5. Shri S.N. Narang,
Deputy Director,
N.B.O.
6. Shri S.M. Krishnamachar
Deputy Director,
N.B.O.
7. Shri A.N. Malik,
Research Officer,
N.B.O.

Shri G.S. Shah, Director, Bureau of
Economics and Statistics, Gujarat
could not attend the meeting due to
preoccupation.

REPORT OF THE SUB-GROUP ON CONCEPTS & DEFINITIONS

At present various concepts and definitions are being used for collection, compilation and analysis of data by various agencies in our country both Central and States. Concepts and definitions used by the United Nations, Registrar General of India, National Sample Survey Organisation and the National Buildings Organisation as listed in the Agenda item No.5 of the third meeting require to be studied further for giving them a uniform precise operational definition.

There was consensus that taking into consideration the substantive condition of housing prevailing in the country in the different regions, there are no valid grounds to strictly conform to the U.N. recommendations. However, continuous efforts should be made to see that the concepts are refined over a period of years to reflect the development taking place in housing under the impact of various programmes and schemes.

The sub-Group attempted to standardise concepts and definitions so that data thrown out by surveys or censuses become comparable and could be used as social and economic indicators to measure development. The definitions suggested are listed in Annex.

The sub-Group recorded its thanks to the Chairman and members of the Advisory Group on Housing Statistics in having reposed trust in it to analyse the various problems and issues.

Concepts and Definitions

<u>S.No.</u>	<u>Iten</u>	<u>Suggested Definitions</u>
1.	Building	A building is any independent or free standing structure comprising one or more rooms or other spaces, covered by a roof and usually enclosed within external walls or dividing walls which extend from the foundation to the roof. Dividing walls refer to the walls of adjoining buildings which have been constructed so that they are contiguous e.g. dividing walls of houses in a row. However, free-standing structure, consisting of a roof with only supports and no walls may also be considered as buildings.
2.	Residential Buildings	A building which is primarily intended or used for dwelling purposes. Other buildings are non-residential.
3.	Industrial Buildings	All buildings intended for housing factories, workshops, plants etc.
4.	Commercial Buildings	All buildings which are built for use primarily in wholesale, retail and service trade including warehousing activities.
5.	Institutional Buildings	All buildin-gs intended primarily for institutional activities such as schools, hospitals, dispensaries etc.
6.	Other Buildings	All buildings other than residential, industrial, commercial and institutional buildings e.g. Cattle sheds, Passenger shelters etc.
7.	New Construction	New construction means the erection of an entirely new structure, whether or not the site on which it is built was previously occupied.
8.	Addition	Addition means enlargement of building by which floor area is added.
9.	Alterations & Improvements	These relate to structural changes and improvements carried out within a building so as to enhance or revive the utility of the original structure.
10.	Current repairs & maintenance	This includes construction work on building and other structures which does not, in principle result in extending their normal life but only prevents their abnormal deterioration and keeps them in a state of normal functioning (current repairs and maintenance on own account are excluded).

<u>S.No.</u>	<u>Item</u>	<u>Suggested Definitions</u>
11.	Completed Building (work completed)	A building on which work is completed and which is physically ready for occupation.
12.	Work started	Work is begun when the first physical operation such as site-preparation, delivery of materials and equipment to the site, start of excavation or laying foundation etc. after the planning and designing stages.
13.	House	A 'house' is a building or a structurally independent part (recognised as a separate unit) of a building having a separate main entrance from the road, common courtyard or staircase etc. It may be intended for residential or non-residential purposes.
14.	Construction material of outer walls.	The material out of which the major portion of the walls of the house are made, as for example, grass, leaves, reeds, bamboo, unburnt bricks, mud, burnt bricks, stone, cement, concrete, timber etc.
15.	Construction material of roof.	The material out of which most of the outer roofs, exposed to the weather and not the ceiling is made i.e. tiles, thatch, galvanised corrugated steel sheets, corrugated iron, zinc or asbestos cement sheets or concrete, slate etc. In the case of multi-storeyed building the intermediate floor or floors will be the roof of the lower floor. If the roof is mainly made of bricks, stone, etc. and has a mud plaster, cement plaster or lime plaster exposed to the sky, the material of roof in such cases will not be 'mud', 'cement' or 'lime' respectively, it will be 'bricks', 'stone' etc. which constitute the fabric of the roof.
16. A	Pucca	(A) <u>Pucca house</u> A pucca house is one of which the predominant material of wall and roof is as given below: <u>Wall</u> : Burnt bricks, G.I. sheets or other metal sheets, stone, cement concrete etc. <u>Roof</u> : Tiles, slate, corrugated iron, zinc or other metal or asbestos cement sheet, bricks, limestone, R.B.C./R.C.C. etc.

<u>S.No.</u>	<u>Item</u>	<u>Suggested Definitions</u>
16. B	Kutchha	(B) <u>Kutchha House</u> (a) <u>Serviceable kutchha</u> : This includes all residential houses which may have mud walls and thatch roof. (b) <u>Unserviceable kutchha</u> : It includes houses which have thatch walls and thatch roofs, i.e. wall made of grass, leaves, reeds, etc. and roof of similar materials.
16. C	Semi-Pucca	(C) <u>Semi-pucca house</u> All houses which do not fall within either of the above two categories will be treated as 'semi-pucca'. Generally, such houses will have either the material of wall or roof for a pucca unit. For instance, a house with mud wall and roof of tiles will be treated as semi-pucca.
17.	Plinth Area	The total plinth area of a building is the sum of plinth areas at every floor, including the basement, if any.
18.	Floor Area	It means inside useable roofed area. It includes the area of rooms, kitchen, w.c. etc. but excludes uncovered area both inside and outside the structure e.g. terrace, stairs, stairways, landing etc.
19.	Dwelling	A room or a suite of rooms with its accessories (viz. kitchen, store, bath, etc.) if any, in a permanent building or a structurally separated part which by the way it has been built, rebuilt or converted is intended for habitation be one household at the census/survey. It should have a separate access to the street, common passage or stairways. Detached room(s) and/or accessories which are clearly meant to be used as part of the dwelling in another building should be treated as such.
20.	Kitchen	A space intended primarily for the preparation of the principal meals.
21.	Bathroom	A separate space intended for bathing.
22.	Room	A covered space in a residential house enclosed by walls from the floor at least two metres high and at least 4 sq. metres in size i.e. large enough to hold a bed for an adult. Unenclosed verandahs, kitchens, bathrooms, garages etc. which are not normally useable for

<u>S.No.</u>	<u>Item</u>	<u>Suggested Definitions</u>
		living, sleeping etc. are not counted as rooms. However, rooms which are used in common for sleeping, sitting, dining, cooking etc. are to be counted as rooms.
23.	Household	A household is a group of persons who usually live together and take their meals from a common kitchen unless the exigencies of work prevents any of them from doing so. There may be one-member, two-member or multi-member households. Again, households may be made up of persons related by blood or unrelated persons such as boarding houses, hostels, residential hotels, orphanages, rescue houses etc. The latter are called institutional households.
24.	Household Head	A person in the household who is recognised as such by the other members. He is generally the person who bears the chief responsibility for the maintenance of the household and for taking decisions on behalf of the household.
25.	Tenure	(i) <u>Owned</u> : If a household is occupying a house or a part of a house owned by itself and is not paying anything to anybody in the form of rent then the household may be considered as living in own house. A household living in a flat or house taken on ownership basis on payment of instalments, is regarded as living in its own house, notwithstanding that all instalments have not been paid. (ii) <u>Rented</u> : A house or part of house is rented if rent is paid or contracted for by the occupants in cash or in kind. Where an owner permits a household to live in a house, rent-free even then the household is treated as living in a rented house.
26.	Houseless Population	Persons who at the time of census have no shelter to live and who sleep on the pavements, piers and such other spaces.
27.	Family Nucleus	A family nucleus consists of (a) a married couple with or without one or more never married children or (b) one parent (father or mother) living with one or more never married children.

REPORT OF THE SUB-GROUP ON INDEX NUMBER OF
CONSTRUCTION COST

For an appropriate measurement of the value of construction at constant prices detailed information on quantity and prices of different types of materials and services going into construction as inputs is required. Data on input structure need to be collected separately for new construction (including incomplete construction and major additions and alterations which increase the expected lifetime of the assets) and current repairs and maintenance.

2. In view of major differences in the input structure in different types of construction works it will be desirable to have separate index numbers for different types of buildings/structures and other construction works. Coverage of different types of construction works is given in Appendix-I. However, it will be necessary to obtain data on the input structure of each of these different types of construction so that proper weights can be used for construction of the index numbers. The input structure for the purpose would cover the cost of labour as well.

DATA AVAILABILITY:

3. Latest data on input structure for household construction are available from ISS Report Nos.97 (Tables with notes on Capital Formation - Fifteenth Round : Rural) and 136 (Tables with notes on Capital Formation - Seventeenth Round : Urban) and relates to the past years of 1959-60 and 1961-62 respectively which are very much outdated. The NSSO have collected data on input structure of housing in the 27th Round (1972-73) in the housing schedules (survey on investment in and financing of building construction in urban areas) and 1.4 (current building activity in rural areas). The results of these surveys when available are likely to give useful data on input structure of household building activity. However for non-household construction by types no such data on input structure are available. Data on input structure of different types of construction in the non-household sector should be obtained by analysing project Reports/Completion Reports of different types of construction projects available in the Planning Commission, C.I.W.D., railway Board and other concerned authorities at regular intervals.

4. For preparation of cost of construction indices by types it is necessary that retail prices of commodity inputs are made use of. At present, the regular information available in respect of prices of construction materials refer to Economic Advisor's index number of wholesale prices of a

few selected construction commodities. With the object of collecting data on retail prices, the NBO initiated the collection of such prices of building materials and wages of construction labour by States. For each State, data is being collected from 1 or 2 centres excepting West Bengal, Himachal Pradesh, Manipur, Sikkim and some of the Union Territories through the State Statistical Bureaus. The details are regularly published by the NBO in the Statistical Bulletin on Prices of Building Materials and Wage Rates for Building Labour. The NBO's proforma relates only to limited building materials. It is proposed that the same may be extended to cover construction materials like bamboo, steel structurals, stone (chips, broken), water supply and electrical fittings, bitumen and materials required for other construction works.

5. For collection of prices of building materials a detailed procedure was laid down by NBO to cover special situations which might arise on the price collection day and which might involve a process of substitution of the prescribed grades and varieties of different building materials. Presently, wide variations exist in the price data received from the States not only because of diverse construction technology but also because of non-conformity to the methods and procedures laid down for price collection. A review of the position in this regard reveals that most of the SSBs have departed from the prescribed method of price collection. Limitations are primarily of the following kind:

- (i) Price reporting agencies differ from State to State: in most of the States price reporting is done by the FWD presumably on the basis of tender prices and not on the basis of collecting information through fixed-shops in the open market. The examples of such States are: Karnataka, Jammu & Kashmir, Gujarat, Maharashtra, Madhya Pradesh, Nagaland, Punjab and Rajasthan. In other States, reporting is being done through the staff of the District Statistical Offices and Block Development Offices.
- (ii) States like Andhra Pradesh, Gujarat and Delhi have been reporting wholesale prices whereas other States have been giving retail prices. In Nagaland, only issue rates are being reported.
- (iii) In the case of Bihar, Gujarat, Karnataka, Kerala, Maharashtra, Punjab, Tripura and U.P. the prices reported are inclusive of transport charges, sales-tax and local taxes. In other States, the prices are net of transport charges and taxes.
- (iv) The grades and varieties with regard to bricks, timber and sand vary and with them, the prices as well. An important reason for the variations in

types of building materials used is the difference in the technology of construction.

To bring about comparability between the prices of different States it is essential that the uniform procedure is followed in the matter of price collection, measurement of transport charges etc.

METHODOLOGY FOR PREPARATION OF CONSTRUCTIONS COST INDEX NUMBERS

6. NBO is compiling residential building cost index number for Delhi with the year 1950 as base since 1954. C.S.O. for estimation of capital formation at constant prices have prepared indices for general pucca construction, pucca walls, rural buildings, urban buildings and labour intensive construction work. The construction departments such as C.P.W.D., M.E.S., Railways and Posts & Telegraphs are also compiling such index for their own use. Based on the experience it is proposed that index numbers may be prepared on the following lines:

- (i) Weighting diagram may be prepared using survey results or project reports for each type of construction work given in Appendix-I.
- (ii) The year 1970-71 may be taken as the base year.
- (iii) The composite index for each type of construction may include three groups i.e. materials other service charges, like engineers' fee, architects' fee, corporation fee, contingency, as well as labour. Separate indices for each of these groups may also be prepared. The weighting pattern for the composite indices as well as for the sub-group indices would differ for each type of construction depending on the input structure. Items like bricks, sand, cement, iron and steel (in different forms used in different types of construction), timber, sanitary and water supply fittings, electrical fittings are to be included in the material group according to the type of construction and relevant material inputs. Under 'Labour' the wages paid to mason, carpenters, electricians and plumbers and all similar skilled and unskilled labour may be included.
- (iv) Retail prices at the site of construction inclusive of taxes, transport charges are to be used for the compilation of the index. In such cases where the purchases are made at the shops and transported to the site of construction, the transport charges paid (or imputed in case of transportation by own vehicles) are to be added.

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to the prices paid. Transport charges should be realistically estimated taking account of standard rates etc. The treatment of other charges like taxes will be similar.

(v) The index numbers may be compiled using the weighted arithmetic mean method.

7. To begin with it may not be possible to prepare cost of construction indices for all the different types listed in Appendix I. A minimum list of categories is therefore included in Appendix-II and priority should be given to collection of input data and preparation of indices under these broad categories at the first instance.

Details of types of housing and other construction activities:

The detailed input structure* (including materials and service inputs) is required at least once in five years in respect of the following types of construction separately for new construction and for repairs and maintenance.

1. Residential construction
 - 1.1 multi-storeyed (RCC frame & other)
 - 1.2 pucca excluding 1.1
 - 1.3 semi pucca
 - 1.4 kutcha
2. Non-residential construction
 - 2.1 non-residential buildings
 - 2.1.1 commercial buildings like schools, shops, cinema houses, office buildings, community centres.
 - 2.1.2 structure like factory buildings.
 - 2.2 other construction work
 - 2.2.1 platforms, godowns
 - 2.2.2 laying of railway lines and cables for telephone, telegraphs, electricity generation etc.
 - 2.2.3 sewerage, drains, water supply lines.
 - 2.2.4 major and medium irrigation projects.
 - 2.2.5 pucca roads, bridges and culverts.
 - 2.2.6 minor irrigation works like construction of walls, tanks, irrigation ponds, irrigation channels, small check dams.
 - 2.2.7 kutcha construction works like kutcha roads, bunding, levelling, laying of orchards, cattle sheds, etc.
3. Repairs and maintenance
 - 3.1 buildings
 - 3.2 other construction works.

* value of various inputs required per rupee of cost of construction of each type.

MINIMUM LIST OF TYPES OF CONSTRUCTION

- I. Building construction
1. Residential buildings
 - 1.1 pucca (a) R.C.C. frame (b) load bearing walls
 - 1.2 kutcha
 - 1.3 *Semi pucca*
 2. Non-residential buildings
 - 2.1 pucca
 - 2.2 kutcha
 - 2.3 *Semi pucca*
- II. Other construction works (pucca)
1. Roads, bridges, culverts and major and medium irrigation projects covering the main reservoir and the supply canals.
 2. Laying of railway lines, telephone and telegraph wires and cables, electricity transmission lines, etc.
 3. Other pucca construction not elsewhere classified (both in the household and non-household sectors).
- III. Kutcha construction other than buildings like bunding, levelling, kutcha roads, kutcha wells & ponds, laying of orchards and plantations etc.
- IV. Repair and maintenance
1. Buildings
 2. Other construction works.

DATA COLLECTED ON HOUSING CONDITIONS IN VARIOUS ROUNDS OF NSS

NSS Round	Item coverage	Report rel- eased or not	Items tabulated
(1)	(2)	(3)	(4)
<u>7th round</u> (Oct. '53- Mar. '54)	1. Plinth type 2. Wall type 3. Roof type 4. Latrine type 5. Drinking water type 6. Period built since 7. Period repaired since 8. Number of rooms 9. Floor space (sq.ft.) 10. Cost of construction & improvement of house during the reference period.	Report No.26	All items except 6, 7 and 10
<u>8th round</u> (Jul. '54- Oct. '54)	as in the 7th Round	No Report.	
<u>9th round</u>	10. rented or not rented 11. if rented, monthly rent.	item 1 to 9 same as above & in addition No Report.	
<u>10th round</u> (Dec. '55- May. '56)	12. if not rented, cost of repair & maintenance during the reference period.	Report No.50	All items except 6, 7, 10, 11 & 12.
<u>11th round</u> (Aug. '56- Jan. '57)	13. Approximate evaluation on the date of survey	Same as in the 9th & 10th rounds and in addition the following item: Report No.51	All items except 7, 10, 11, 12, & 13.
<u>12th round</u> (Mar. '57- Aug. '57)	Item 1 to 11 same as for 9th & 10th round. Additional information was obtained on the following: room area, covered verandah area, courtyard area, distance of the source of	Report No.67	All items except 6,7, 10,11 covered verandah, courtyard area, reason for dis-satisfaction with refer-

Contd....

(1)	(2)	(3)	(4)
	<p>drinking water, bath type, kitchen type & reason for dissatisfaction, if any, with reference to the condition of the house and local facilities (medical, educational, market).</p>		<p>ence to the condition of the house etc. information on building & repair works.</p>
	<p>In addition to housing conditions, information was collected on building and repair works during last year.</p>		
<p>15th round (Jul. '59- Jun. '60)</p>	<ol style="list-style-type: none"> 1. type of dwelling 2. number of storeys 3. sewerage or drainage system. 4. condition of structure 5. ventilation 6. passage to dwelling 7. period built since 8. number of households 9. plinth 10. wall 11. roof 12. number of rooms 13. area of rooms 14. area of roofed verandah, corridors. 15. area of roofed kitchen, stores, bath & stairs. 16. total floor area 17. kitchen 18. latrine use 19. latrine type 20. bath 21. drinking water: source 22. drinking water: distance 23. lighting, type 24. tenure status 25. ownership 26. rented, not rented 27. if rented, monthly rent 28. portion used for non-residential purposes. 	<p>Report No.146</p>	<p>Only items Nos.1, 12, 16, 19, 21, 22,23 & the rest not tabulated.</p>

<u>16th round</u> (Jul. '60- Aug. '61)	1. condition of structure 2. period built since 3. drinking water source 4. drinking water distance 5. rented, not rented 6. if rented, monthly rent 7. if not rented, the cost of repair and mainten- ance during the last year.	Report No.137	All items
<u>17th round</u> (Jul. '61- Jun. '62)	as in the 16th round	Report No.150	All items except 3, 4 & 5.
<u>18th round</u> (Feb. '63- Jan. '64)	as in the 17th round 1. structure type 2. age of house 3. latrine type	Report No.170	All items except 5.
<u>19th round</u> (Jul. '64- Jun. '65)	4. source of drinking water 5. number of rooms 6. floor space 7. rented, not rented 8. if rented, monthly rent 9. cost of minor repairs & maintenance during last year,	Report No.195	All items except item 9.
<u>20th round</u> (Jul. '65- Jun. '66)	As in the 19th round	Report not available.	Not tabu- lated.
<u>21st round</u> (Jul. '66- Jun. '67)	As in the 20th round	-do-	-do-
<u>22nd round</u> (Jul. '67- Jun. '68)	1. type of structure 2. period since built 3. type of latrine 4. source of drinking water 5. bathing facility 6. cooking facility 7. number of rooms 8. floor space 9. whether rented 10. monthly rent 11. cost of minor repairs & maintenance during the last year.	-do-	-do-
<u>23rd round</u> (Jul. '68- Jun. '69)	As in the 22nd round	-do-	-do-

(1)	(2)	(3)	(4)
<p>28th round (Oct. '73- Jun. '74)</p>	<ol style="list-style-type: none"> 1. area of the plot 2. land: owned, rented or leased in 3. tenure status of the household. 4. monthly rent. 5. plinth level. 6. plinth area 7. type: chawl, bustee, independent house or flat. 8. type of structure 9. condition of structure 10. period since built 11. period since last major repairs undertaken 12. sewerage arrangement 13. number of living rooms 14. area of living rooms 15. number of other rooms 16. area of other rooms 17. no. of rooms without windows. 18. area of covered verandah. 19. area of uncovered verandah. 20. kitchen 21. material of wall 22. material of roof 23. material of floor 24. ventilation 25. source of drinking water 26. facilities of drinking water 27. distance to the source of the drinking water 28. distance to the bathing place 29. type of latrine 30. latrine facility 31. distance of latrine used 32. no. of persons using the latrine 33. type of lighting 34. no. of electric points with the household 35. no. of kerosene lamps with the household 36. no. of electric fans, if any. 	<p>Report not available</p>	<p>All itens except 1,9, 10,11,17,18, 20,24,25,27, 28,31,32,34, 35 & 36 tabulation is in progress.</p>

केन्द्रीय/Central
राज्य/State

प्रथम/द्वितीय/तृतीय
Original/Duplicate/Triplicate

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय ।
MINISTRY OF WORKS AND HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

अनुसूची-I मार्च/सितम्बर 19.....को समाप्त होने वाली छमाही विवरणी
SCHEDULE-I Return for the half year ending March/September 19.....

यह सांख्यिकीय विवरण 20,000 रु० या इससे अधिक लागत वाली भवन निर्माण प्रायोजनाओं के लिए भरना है ।

This statistical return is to be filled up for the building projects costing Rs. 20,000 or more.

I. पहचान बिन्दु/Identification particulars:

1. प्रायोजना का नाम/Name of project.....
2. प्रायोजना की स्थिति/Project location
(क) स्थान/(a) Place..... (ख) जिला/(b) District..... (ग) राज्य/(c) State.....
3. बिन्दुवार तकनीकी प्राक्कलन की मंजूरी संख्या/
Sanction number of detailed technical estimates.....
4. निर्माण प्रभाग/Works Division.....
5. कार्य द्वारा किया गया/Work done by लोक निर्माण विभाग/उकेदार/PWD/Contractor

II. मूलभूत बिन्दु/Basic Details:

6. निर्माण की प्रकृति
Nature of Construction नया निर्माण/मौजूदा इमारतों में वृद्धि
New construction/Additions to existing buildings.
*कुर्सी क्षेत्रफल (वर्ग मी०) फर्शी क्षेत्रफल (वर्ग मी०)
*Plinth area (sq. mt.) Floor area (sq. mt.)
7. निर्मित का प्रकार
Type of Construction **कूट Code
**कूट Code
8. इमारत में मंजिलों की संख्या/Number of Storeys in the building.....
9. रिहायशी एककों की संख्या तथा प्रकार/Number and type of dwelling units

रिहायशी एककों की संख्या/Number of dwellings

1 कमरे वाले एकक 1 room Unit	2 कमरों वाले एकक 2 room unit	3 कमरों वाले एकक 3 room unit	4 या अधिक कमरों वाले एकक 4 or more room unit
--------------------------------	---------------------------------	---------------------------------	---

नई निर्मित/मौजूदा इमारतों में
वृद्धि या जिनके परिणाम-
स्वरूप नए रिहायशी एकक बने हों
New construction/Additions
to existing buildings
resulting in dwellings

(2)

10. मास और वर्ष जिसमें/Month and year in which :

- (क) विस्तृत तकनीकी प्राक्कलन को मंजूरी मिली/
(a) detailed technical estimates sanctioned.....
- (ख) कार्य प्रारम्भ किया/(b) Work started.....
- (ग) कार्य पूरा हुआ/(c) Work completed
- (घ) टेडर के अनुसार कार्य को पूरा करने का निर्धारित समय/
(d) stipulated period of completion in the tender.....

11. कार्य की प्रगति/Progress of work.....

अनुमानित लागत और किये गये कार्य मूल्य (केवल निम्नलिखित मदों तक सीमित रहते हुए)
Estimated cost and value of work done (mention to the extent of the following items only)

(रु० में)
(in Rs.)

व्यय के शीर्ष	अनुमानित लागत	चालू छः माहों में किये गए निर्माण का मूल्य	कार्य प्रारम्भ किए जाने के बाद अब तक किये गए निर्माण कार्य का मूल्य (चालू छः माहों सहित)
Heads of expenditure	Estimated cost	Value of work done during the current half year	Value of work done since beginning of the work (including current half year)
(क) इमारत का भाग			
(a) Building portion			
(ख) स्वच्छता और जल पुरि संयोजन			
(b) Sanitary and water supply installations			
(ग) विद्युत् संस्थापन			
(c) Electrical installations			
(घ) योग			
(d) Total			

*एन कर्षी क्षेत्रफल मंरे तलों के क्षेत्रफलों का योगफल है।

*Total plinth area means the sum total of plinth area of all the floors in case the building has more than one floor.

**रिहायशी प्रकार 1, अन्य रिहायशी स्थान 2, औद्योगिक 3, व्यापारिक 4, संस्थाओं की इमारतें 5, अन्य इमारतें 6।

**Dwellings 1, Other residential places 2, Industrial 3, Commercial 4, Institutional 5, Others 6.

MGIPRRND—1 NBO/75, Sec. VIII, dated 11-7-75—396000.

36. no. of electric fans, if any.

केन्द्रीय Central
राज्य State

प्रथम द्वितीय तृतीय
Original Duplicate Triplicate

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
Ministry of Works & Housing
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION
अनुसूची 1
Annexure 1

(सार्वजनिक भवन निर्माणकार्यों के आंकड़े संकलित करने के लिए फार्म)
(Form for Consolidation of Statistics of Building Activity in Public Sector)

I पहचान ब्योरे
Identification particulars

1. समाप्त होने वाली छमाही जिसमें विवरणी का सम्बन्ध है।
Returns relating to half year ending
 2. निर्माण एजेंसी का नाम
Name of Construction Agency.....
 3. राज्य (कूट)
State (Code).....
 4. निर्माण की प्रकृति (कूट)
Nature of Construction (Code)
नई रचना
New Construction.....1
- परिचयन
Additions.....2

[P.T.O.]

[I] प्राथमिक तथा प्राथमिक-मह-गैर प्राथमिक इमारतों में रिहायशी एककों का विवरण*
Details of dwellings in residential and non-residential-cum-residential buildings*

निर्माण की अवस्था Stage of Construction	रिहायशी एककों की संख्या Number of dwellings				कुल Total
	1 कमरे वाले एकक 1 room unit	2 कमरों वाले एकक 2 room unit	3 कमरों वाले एकक 3 room unit	4 या अधिक कमरों वाले एकक 4 or more room unit	
1	2	3	4	5	6

इमारत वाले भाग के लिए निर्माण परियोजना

Construction projects with work in building portion.

- (1) अवधि के दौरान प्रारम्भ किया गया परन्तु अभी प्रसमान
Started during the period but not completed.
- (2) पिछली अवधि में चालू परन्तु प्रसमान
Continued from previous period but not completed
- (3) अवधि के दौरान पूरा किया गया
Completed during the period.

*सम्बन्धित सम्बद्ध प्रायोजनार्थों के मामले में रिहायशी एककों की संख्या का सम्बन्ध अतिरिक्त एककों (यदि बनाए गए हों) से होना चाहिए।
 *In case of projects relating to additions, number of dwellings should relate to additional units created, if any.

अनुसूची II
SCHEDULE II

प्रथम/द्वितीय/तृतीय
Original/Duplicate/Triplicate

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
MINISTRY OF WORKS & HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

नगर पालिका/निगम का नाम/Name of Municipality/Corporation . . .

1. निर्माण की प्रकृति
Nature of construction

नया निर्माण/मौजूदा इमारतों में वृद्धि
New construction/Additions to existing buildings

2. निर्माण का प्रकार
Type of construction

कूट कुल कुर्सी क्षेत्रफल (वर्ग मी०) कुल फर्शी क्षेत्रफल (वर्ग मी०)
Code *Total plinth area Total floor area
(sq. mt.) (sq. mt.)

कूट
**Code

3. इमारतों में मंजिलों की संख्या/Number of storeys in the building.....

P.T.O.

*कुल कुर्सी क्षेत्रफल सर्व तलों के क्षेत्रफल का योगफल है।

*Total plinth area means the sum total of plinth area of all the floors in case the building has more than one floor.

*कूट (क) (i) रिहायशी इमारतें (ii) अन्य रिहायशी स्थान (2) (ख) औद्योगिक (3) (ग) व्यापारिक (4) (घ) संस्थाओं की इम (5) श्रेष्ठ इमारतें (6)

3	4	5	6	7	8	9	10	11

अतिरिक्त कार्य द्वारा बनाए गए अतिरिक्त कुर्सी/फर्नी अंतरफल से होगा ।
 Additional plinth area and floor area created by the project/work.

सूची II
SCHEDULE II

प्रा. दु. प्र. प्र.
Original Duplicate Triplicate

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
MINISTRY OF WORKS & HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

नगर पालिका/निगम का नाम/Name of Municipality/Corporation

- | | |
|--|---|
| 1. निर्माण की प्रकृति
Nature of construction | नया निर्माण मौजूदा इमारतों में वृद्धि
New construction Additions to existing buildings |
| 2. निर्माण का प्रकार
Type of construction | कूट *कुल कुर्सी क्षेत्रफल (वर्ग मीटर) *कुल कुर्सी क्षेत्रफल (वर्ग मीटर)
Code *Total plinth area (sq. mt.) Total floor area (sq. mt.) |
| | **Code |
| 3. इमारतों में मंजिलों की संख्या/Number of storeys in the building | P.T.O. |

*कुल कुर्सी क्षेत्रफल सभी तलों के क्षेत्रफल का योगफल है।
*Total plinth area means the sum total of plinth area of all the floors in case the building has more than one floor.
*कूट (क) (i) निहायती इमारतें (ii) अन्य निहायती स्थान (2) (ख) औद्योगिक (3) (ग) व्यापारिक (4) (घ) सरकारी का
इय) (5) अन्य इमारतें (6)

F (ia)

- | | |
|--|---|
| 3. औद्योगिक इमारतें
Industrial buildings
(क) नई निर्मिति
(a) New construction
(ख) वृद्धि
(b) Additions | उर्ध्व
रूक-उप.
s/
classified
on cate-
or consis. |
| 4. व्यापारिक इमारतें
Commercial buildings
(क) नई निर्मिति
(a) New construction
(ख) वृद्धि
(b) Additions | |
| 5. संस्थागत इमारतें
Institutional buildings
(क) नई निर्मिति
(a) New construction | |

[P.T.O.]

and kitchen

(a) total value

"

State with urban
and rural break-ups.

अनुसूची II
SCHEDULE II

प्रथम, द्वितीय, तृतीय
Original Duplicate Triplicate

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
MINISTRY OF WORKS & HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

नगर पालिका/निगम का नाम/Name of Municipality/Corporation

1. निर्माण की प्रकृति
Nature of construction

नया निर्माण/मोजदा इमारतों में वृद्धि
New construction/Additions to existing buildings

2. निर्माण का प्रकार
Type of construction

कूट Code: कुल कुर्सी क्षेत्रफल (वर्ग मी०) *Total plinth area (sq. mt.) कुल फर्शी क्षेत्रफल (वर्ग मी०) Total floor area (sq. mt.)

कूट **Code:

3. इमारतों में मजिलों की संख्या/Number of storeys in the building

P.T.O.

*कुल कुर्सी क्षेत्रफल सर्व तलों के क्षेत्रफल का बीगफल है।

*Total plinth area means the sum total of plinth area of all the floors in case the building has more than one floor.

*कूट (क) (i) रिहायशी इमारतें (ii) अन्य रिहायशी स्थान (2) (ख) औद्योगिक (3) (ग) व्यापारिक (4) (घ) सभ्याओं की इमारतें (5) अन्य इमारतें (6)

F. t. a

3. आध्यात्मिक इमारतें

Industrial buildings

(क) नई निर्मिति

(a) New construction

(ख) वृद्धि

(b) Additions

urban
break-ups. I

s/
classified
on cate-
er census. I

4. व्यापारिक इमारतें

Commercial buildings

(क) नई निर्मिति

(a) New construction

(ख) वृद्धि

(b) Additions

I

5. संस्थापक इमारतें

Institutional buildings

(क) नई निर्मिति

(a) New construction

[P.T.O.]

and kitchen

(a) total value

"

State with urban
and rural break-ups.

I

1. रचना में रिहायशी एककों की संख्या तथा प्रकार/Number and Type of dwelling units

रिहायशी एककों की संख्या/Number of dwellings

1 कमरे वाले एकक, 2 कमरों वाले एकक, 3 कमरों वाले एकक, 4 या अधिक कमरों वाले एकक
1 room unit, 2 room unit, 3 room unit, 4 or more room unit.

1 room unit	2 room unit	3 room unit	4 or more room unit

नई निर्माण/मीत्रद इमारतों में वृद्धि के कारण बने रिहायशी एकक

New construction/Additions to existing buildings resulting in dwellings.

निम्नलिखित मदों के व्योरे केवल रिहायश के लिए दखल प्रमाण-पत्र का प्रावेदन करने समय देने चाहिए
Particulars for the following items should be given while applying for occupancy certificate only.

5. निर्माण की लागत का अनुमान (यदि प्राप्त हो) रु०
Estimated construction cost (if available) Rs.....
6. प्राधिकरण प्रमाण-पत्र की संख्या व उसकी तारीख
Number and date of issue of authorisation certificate.
7. निर्माण प्रारम्भ होने की तारीख
Date of commencement of construction.....
8. निर्माण पूरी होने की तारीख
Date of completion of construction.

तारीख
Date.....

प्रावेदनकर्ता के हस्ताक्षर
(Signature of applicant)

प्रावेदनकर्ता का नाम व पता साफ अक्षरों में
(Name and address of applicant in block letters).....

केवल कार्यालय के इस्तेमाल के लिये
(For use in Office only)

प्रार्थना पत्र की संदर्भ संख्या
Reference number of application.....

प्राधिकरण/रिहायश के लिए दखल प्रमाण-पत्र की संख्या व तारीख
Number and date of issue of authorisation/occupancy certificate.....

MGIPRRND—2NBO:75—Sec. II(D)—22-7-75—6,75,000

6.2

6.3

अनुबन्ध II
ANNEX II

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
MINISTRY OF WORKS & HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

(नगरपालिकाओं से संग्रहित किये गये भवन निर्माण कार्यों के आंकड़े संकलित करने का कार्य)

(Form for consolidation of Statistics of building activity collected from municipalities).

समाप्त होने वाली तिमाही
Quarter ending.....

नगरपालिका का प्रकार
*Size of municipality.....

निर्माण कार्य का न्यौरा
Details of building works

नगरपालिका का नाम
Name of municipality.....

कूट
Code

राज्य
State.....

निर्माण का प्रकार Type of construction	मंजूर किये गये नक्शों/पूरी हुई इमारतों की संख्या No. of plans sanctioned/buildings completed	कुल कुर्सी क्षेत्रफल (वर्ग मी०) Total plinth area (sq. mt.)	कुल फर्शी क्षेत्रफल (वर्ग मी०) Total floor area (sq. mt.)
1	2	3	4
1. रिहायशी इमारतें (रिहायशी एकक) Residential buildings (Dwellings)			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
2. अन्य रिहायशी इमारतें Other residential buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
3. औद्योगिक इमारतें Industrial buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
4. व्यापारिक इमारतें Commercial buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
5. संस्थापक इमारतें Institutional buildings			
(क) नई निर्मिति (a) New construction			

1. रचना में रिहायगी एककों की संख्या तथा प्रकार/Number and Type of dwelling units

रिहायगी एककों की संख्या/Number of dwellings

1 कमरे वाले एकक, 2 कमरों वाले एकक, 3 कमरों वाले एकक, 4 या अधिक कमरों वाले एकक
1 room unit, 2 room unit, 3 room unit, 4 or more room unit.

नई निर्माण/मीटर इमारतों में वृद्धि के कारण बने रिहायगी एकक

New construction Additions to existing buildings resulting in dwellings.

निम्नलिखित मदों के व्योरे केवल रिहायश के लिए दखल प्रमाण-पत्र का आवेदन करने समय देने चाहिए।

Particulars for the following items should be given while applying for occupancy certificate only.

5. निर्माण की लागत का अनुमान (यदि प्राप्त हो) रु०
Estimated construction cost (if available) Rs.....
6. प्राधिकरण प्रमाण-पत्र की संख्या व उसकी तारीख
Number and date of issue of authorisation certificate.
7. निर्माण आरम्भ होने की तारीख
Date of commencement of construction.....
8. निर्माण पूरी होने की तारीख
Date of completion of construction,

1 room unit	2 room unit	3 room unit

तारीख

Date.....

आवेदनकर्ता के हस्ताक्षर
(Signature of applicant)

आवेदनकर्ता का नाम व पता साफ अक्षरों में
(Name and address of applicant in block letters).....

केवल कार्यालय के इस्तेमाल के लिये

(For use in Office only)

प्राथम्यता पत्र की संदर्भ संख्या

Reference number of application.....

प्राधिकरण/रिहायश के लिए दखल प्रमाण-पत्र की संख्या व तारीख

Number and date of issue of authorisation/occupancy certificate.

अनुबन्ध II
ANNEX II

भारत सरकार
GOVERNMENT OF INDIA
निर्माण और आवास मंत्रालय
MINISTRY OF WORKS & HOUSING
राष्ट्रीय भवन निर्माण संगठन
NATIONAL BUILDINGS ORGANISATION

(नगरपालिकाओं से संग्रहीत किये गये भवन निर्माण कार्यों के आंकड़े संकलित करने का कार्य)
(Form for consolidation of Statistics of building activity collected from municipalities).

समाप्त होने वाली तिमाही
Quarter ending.....

नगर पालिका का आकार
*Size of municipality.....

निर्माण कार्य का न्यौरा
Details of building works

नगरपालिका का नाम
Name of municipality.....

कूट
Code

राज्य
State.....

निर्माण का प्रकार Type of construction	मंजूर किये गये नक्शों/पूरी हुई इमारतों की संख्या No. of plans sanctioned/buildings completed	कुल कुर्मी क्षेत्रफल (वर्ग मी०) Total plinth area (sq. mt.)	कुल फर्शी क्षेत्रफल (वर्ग मी०) Total floor area (sq. mt.)
1	2	3	4
1. रिहायशी इमारतें (रिहायशी एकक) Residential buildings (Dwellings)			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
2. अन्य रिहायशी इमारतें Other residential buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
3. औद्योगिक इमारतें Industrial buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
4. व्यापारिक इमारतें Commercial buildings			
(क) नई निर्मिति (a) New construction			
(ख) वृद्धि (b) Additions			
संस्थापक इमारतें Institutional buildings			
(क) नई निर्मिति (a) New construction			

[P.T.O.]

and KUTCHA
(a) total value

"

State with urban
and rural break-ups.

	1	2	3	4
(ख) वृद्धि				
(b) Additions				
6. अन्य प्रकार की इमारतें				
Other Buildings				
(क) नई निर्मिति				
(a) New Construction				
(ख) वृद्धि				
(b) Additions				
योग				
Total				
रिहायशी तथा गैर रिहायशी इमारतों में रिहायशी एककों की संख्या				
Number of dwellings in residential and non-residential-cum-residential buildings.				

निर्माण की अवस्था	एक कमरे	दो कमरों	तीन	चार या
	वाले एकक	वाले एकक	कमरों वाले एकक	अधिक कमरों वाले एकक
Stages of construction	1 room unit	2 room unit	3 room unit	4 or more room unit

- मंजूर किये गये नक्शे
Plans sanctioned.
 - नई निर्मिति में रिहायशी एककों की संख्या
(a) No. of dwelling units in new construction works.
 - वृद्धि कार्य में यदि कोई रिहायशी एकक हों तो उनकी संख्या
(b) No. of additional dwelling units created, if any, in additional works.
- पूरा किया गया कार्य
Works completed.
 - नई निर्मिति में रिहायशी एककों की संख्या
(a) No. of dwelling units in new construction works.
 - वृद्धि कार्य में यदि कोई रिहायशी एकक हों तो उनकी संख्या
(b) No. of additional dwelling units created, if any, in additional works.

*नगर पालिका जिनकी जनसंख्या (i) 10,000-19,999 (1) (ii) 20,000-49,999 (2) (iii) 50,000-99,999 (3) (iv) 1,00,000-2,99,999 (4) (v) 3,00,000-4,99,999 (5) (vi) 5,00,000 या अधिक (6)

*(Municipalities with population of (i) 10,000-19,999 (1), (ii) 20,000-49,999 (2), (iii) 50,000-99,999 (3), (iv) 1,00,000-2,99,999 (4) (v) 3,00,000-4,99,999 (5), (vi) 5,00,000 or more (6).

नोट:—1. यह विवरणी 10000 तथा इससे अधिक जनसंख्या वाली सभी नगरपालिकाओं के लिये भरी जाती है

NOTE: This return has to be filled in for all municipalities with population 10,000 and above.

2. प्रत्येक तिमाही में दो विवरणियां भरी जाती हैं—एक मंजूर किये गये कार्य के विषय में तथा दूसरी पूरे किये गये कार्य के लिए।

Two returns have to be filled each quarter—one relating to the works sanctioned and the other to works completed.

MGIPRRND—4 NBO/75—II (N)—21-6-75—72,000

DATA REQUIREMENTS OF USER ORGANISATIONS

At its first meeting, the Advisory Group on Housing Statistics desired that the user organisations may draw up detailed notes on their data needs, their periodicity, level and priorities. Based on the notes received from C.S.O., Planning Commission, Reserve Bank of India and the National Buildings Organisation, the data requirements indicated by them are briefly described as under:

1. Central Statistical Organisation:

Data on 'housing' are generally required for preparation of estimates of domestic product in the sectors of construction and ownership of dwellings and capital formation in the form of residential houses. For this purpose, the information is required on the one hand regarding details of construction activity including annual expenditure on repairs and maintenance, and on the other, rental per dwellings, payment of house tax, current market value of house property, number of residential houses, etc. The aspects of housing statistics on which information need to be collected are detailed below:

Item of information	Periodicity	Level	Priorities
1. average rental per dwelling.	annual	State with urban and rural break-ups.	I
2. details of house tax assessed, rental (along with corresponding number of houses on which information is based)	"	local bodies/ panchayats classified by population categories as per census.	I
3. details of expenditure on repairs and maintenance (as provided for tax purposes)	"	"	I
4. expenditure on new construction (including incomplete construction major additions and alterations which add to the value of assets by type of construction viz. pucca, semi-pucca and kutcha			
(a) total value	"	State with urban and rural break-ups.	I

Item of information	Periodicity	Level	Priorities
(b) details along with input structure.	Once in five years	State with urban and rural break-ups.	II
5. current market value of residential houses property along with age distribution.	"	"	II
6. Number of residential houses.	"	"	II

2. Planning Commission:

The data requirements of the Planning Commission mainly relate to the construction of input-output table and formulation of planning models. For input-output tables, construction has been treated as a single sector covering all types of construction activities like residential buildings (rural and urban), non-residential buildings (rural and urban), farm construction activities like cattle sheds, threshing floors etc., factory buildings, irrigation dams, canals, bridges, culverts, etc. The data requirements for the construction of input-output table, are mainly two-fold: one relates to the inputs of the materials and other services used in construction activities and the other pertains to gross fixed capital formation in the form of construction. For the latter, the estimates are made by the C.S.O. periodically and published. However, this information is required in much greater detail for the purpose. The broad break up of the expenditure on construction in terms of "new construction" and "repairs and maintenance" for the economy as a whole are needed. Secondly, the estimates for these two broad components should be available separately for the general government, household and industrial sectors for the purpose of estimating more realistically the current expenditure on repairs and maintenance of these sectors separately. The C.S.O. is preparing, of course, these estimates on the basis of certain bench-mark estimates available from (a) All India Rural Debt and Investment Survey - 1961-62 (AIRDIS) of the Reserve Bank of India, (b) NSS report No.97, "Table with Notes on Capital Formation - 15th Round (rural)", (c) NSS report entitled "Table with Notes on Capital Formation - 17th Round (urban)", etc. These bench-mark estimates are, however, very much outdated. It is necessary that we should compile information periodically at least once in five years, on repairs and maintenance providing details for rural and urban areas separately as well as for the different sectors (general government, household, etc. sectors) and for the

different types of construction. Information relating to itemwise inputs going into repairs and maintenance is different sectors/types of construction should also be collected at least once in five years by means of sample surveys.

Besides, information in great details on the different types of materials and services inputs going into various types of new construction, activities is essentially required. Presently, the commodity flow approach adopted by the C.S.O. covers cement, iron and steel products, bricks and tiles, timber and round wood, permanent fixtures and fitting and other building materials. However, there is no information on the flow of these materials into different types of construction activities, though the C.S.O. takes into account the use of some of the above materials in public and private sectors separately for the valuation of these inputs. Further, there are a number of other inputs which are not covered specifically by the commodity flow approach and for arriving at the value of such materials, the C.S.O. is using the norms based on the "Report on the Survey of Building activity" - Bombay, Calcutta and Madras. (Reserve Bank of India Bulletin, April 1960). Many of these norms are much outdated. The input structure of the different types of construction activities is undergoing constant changes on account of the technological improvements in the field, relative cost of different inputs, changes in the income distribution, changes in the procedures for term-lending, large scale construction activities undertaken by the State Housing Boards and Urban Development Corporations, etc. It is, therefore, necessary that there is a continuous flow of information periodically on the detailed input structure of the different types of construction apart from more realistic estimates fixed capital formation in terms of construction for different purposes.

Sophisticated planning models can be attempted if information on capital stock in the economy is available for any particular point of time. Construction forms an important element of capital stock and attempts should be made to obtain information on capital stock in the form of construction of all types. While attempts could be made to assess this component with the available data in the case of public sector as well as private corporate sector, there is very little information on the stock of residential housing. The information collected in this respect during the 1971 Census (at the instance of N.B.O.) provided only qualitative information on the type of structure, accommodation, etc. and do not give any quantitative information on the cost of construction, year of construction, etc. It would be, therefore, desirable to undertake a fullfledged housing census at the earliest to collect both the qualitative and quantitative information. The qualitative data should cover items like availability of water supply, electricity, independent toilet, etc., while the quantitative information should cover items like the initial capital cost, year of construction, rental value per annum,

annual expenditure on repairs and maintenance, property taxes, etc. With the fast growth of urban residential complexes individual housing units are giving place to multi-storeyed flats where the type and structure of construction differs very much from the older type of individual units because of different common service amenities provided in the multi-storeyed construction undertaken in the private and public sector housing projects. In view of all these rapid changes, it is suggested that a housing census covering all these aspects is undertaken at least once in five years, which would help also in the policy formulation for housing schemes.

Building materials constitute about 70 to 75 per cent of the total cost of building construction. Therefore, collection of prices of building materials at various district centres and specified prices paid by the construction division of central and state government departments is highly essential. At present, the data on wholesale prices of selected building materials are available for important markets in the country on a weekly basis. However, there is very little information on retail prices which are in fact the operative prices for the construction activities undertaken by the household sector as well as the local bodies. It is, therefore, suggested that the retail prices of more number of building materials are collected at all district centres at least once in a month which would help in taking into account the regional variations in building costs, which are quite substantial in the case of materials like bricks, lime, etc. produced mainly in the unorganised sector.

Regular collection and maintenance of data in respect of different categories of workers engaged in various types of construction activities is essential not only for assessing the employment potential of the different schemes, but also to ensure proper manpower planning with a view to provide adequate supply of skilled labour in the large construction programmes envisaged in the development plans of the central and state Government. The data on employment in the construction sector as a whole collected by the Directorate General of Employment and Training, Ministry of Labour is known to be very inadequate in view of the fact that the coverage of the private sector, especially the individual contracts and small firms, is very poor. It is, therefore, desirable to collect data on regular basis relating to the employment of different categories of workers engaged in various types of construction activities covering both the public and private sectors through proper annual surveys especially for the private sector. Information relating to wages of the different categories of workers in the different regions of the country should also be collected during such surveys. Since labour costs form nearly 25 to 30 per cent of the total cost of construction, the collection of data on wages on a regular basis would help in planning for mobility of labour in cases where there are shortages of specified types of skilled

labour as well as wide divergences in wage rates between the different regions.

The details of the data requirements and the periodicity are as follows:

The detailed input structure* (including materials and service inputs) is required at least once in five years in respect of the following types of construction separately for new construction and for repairs and maintenance.

- I. Residential construction
 - (i) Rural housing - pucca and kutcha
 - (ii) Urban housing
- II. Non-residential construction
 - A. Rural:
 - (i) Farm construction like bunding, levelling, laying of orchards, cattle sheds, etc.
 - (ii) Minor irrigation sources like construction of walls, tanks, irrigation ponds, minor irrigation channels, small check dams, etc.
 - (iii) Non-farm rural construction activities like rural roads (kutcha and pucca), schools, health centres, veterinary centres and similar types of construction in the rural areas.
 - (iv) Major and medium irrigation projects covering the main reservoir and the supply canals.
 - B. Urban:
 - (i) Road construction, viz. municipal and metropolitan roads, district, state and national highways.
 - (ii) Bridges and culverts.
 - (iii) Non-residential urban private constructions like commercial buildings (shops, cinema houses, office buildings, etc.) and non-commercial private buildings like schools, colleges, etc.
 - (iv) Non-residential factory buildings both in private and public sectors.
 - (v) Construction of buildings in the public sector in urban areas like schools, colleges, hospitals, and other public institutions like government offices, post offices, railway

* Quantity and value of various inputs required per rupee of cost of construction of each type.

stations, bus terminals, markets, etc. This would cover all types of construction activities undertaken in the urban areas by the Central and State Governments and also the local bodies like corporations, municipalities, etc.

Apart from the above, the following statistics would also be required for formulation of more realistic planning models and policies:

- | | |
|--|--------------------|
| 1. Capital stock in the form of construction of all types. | Once in five years |
| 2. Prices of building materials. | Monthly |
| 3. Employment and wages. | Annual |

3. Reserve Bank of India:

Construction is an important sector of activity from the point of view of the national income estimates. It is even more important for the purposes of capital formation estimates and household savings of which physical asset formation by household forms an important component accounting for approximately 50 per cent of the savings of the households. The national income estimates for construction activity are compiled through commodity flow approach for large part of this activity and this method is replete with several assumptions as regards proportions of various building materials going into new construction. These proportions do not seem to be changing over time and their constancy affects the trends in the contribution of construction sector to national income, capital formation, household savings and so on. A further limitation of this method is that at State level, it is not possible to apply this method for obvious reasons and the estimation of value added and capital formation at State level is indeed extremely necessary. The method in vogue both at the national level and at state level has no cross checks whatsoever and it is important that there is some direct source of information available in regard to this information. It is from this point of view that the 3-tier scheme of the NBO should be strengthened right from municipal level to the central level. If all municipalities cannot be covered every year, it should be considered whether a stratified sample of corporations, municipalities of cities, large and small towns and other local bodies cannot be taken up for building up estimates for the private sector in urban areas both with regard to residential and non-residential construction.

As regards villages, sample survey can be conducted by the NSSO with a frequency of once in three years, if not annually. This should include construction not only by households but also community construction in the selected villages.

A natural corollary to the above suggestions is that a separate index for wholesale prices of building materials is built up so that constant price estimation is facilitated.

Another item which is of equal importance is to estimate the investment, employment, wages and salary and wage rates paid in the construction industry. Estimates of these items should be available every year. For the national income estimation, it is also necessary that more realistic estimates of rental value of own residential houses as well as rented ones are available, annually.

As an indicator of economic activity, in advanced countries information on 'housing starts' is regularly published. If such information cannot be collected in time all over the country, it should be possible to at least organise collection of similar information from metropolitan corporations and municipalities of large cities, since housing in urban areas has considerable effect on the economic life of the people residing in these areas. It also usually acts as an advance signal for coming recessionary or high economic activity status. It is, therefore, important that such information is available with a time lag of about a month only. Number of construction plans submitted and/or commencement certificates issued (if possible along with some idea about the size of activity in terms of area of construction or value estimates) could serve as quick indicators of construction activity in urban areas.

Information on land prices is also of great relevance in the overall system of housing statistics. Land absorbs an important share of the total investment in buildings and other constructions. This is particularly so in urban areas, especially the metropolitan cities. Information on the trends in land prices will be, therefore, very useful in the budgeting of construction programmes which involve land acquisition. The information has its uses in construction programmes on owned land also, for estimating realistically the total investment at current market prices. Such estimation will be necessary, for example, when the choice between alternate schemes has to be decided not only in the context of social objectives, but also having regard to the return of investment. Again, an estimate of total investment is necessary, for example, in assessing the element of subsidy in subsidised housing programmes on Government owned land. The series on land prices may therefore be constructed by processing the data available in the registration records of State Governments.

-(91):-

National Buildings Organisation:

N.B.O. has indicated its data requirements under the following heads:

Item of information	Periodicity	Level	Priority
1. Housing stock	Decennial	Town/District/ State/All India (urban & rural)	I
2. Housing condition	Once in five years	Regions/State/All India (urban and rural)	I
3. Current Housing Statistics - Urban	Annual	Public/Private/ State/all India	I
4. Current Housing Statistics - Rural	"	Regions/State/ all India	I
5. Production and consump- tion of statistics of key building materials	"	"	II
6. Market price of buildings materials	Quarterly	Selected urban centres	I
7. Wages of building labour			
8. Statistics of employment	Annual	Regions/State/ all India (rural/ urban)	II
9. Statistics of housing finance & investment including input statistics.	Once in five years	"	I
10. Monitoring of social housing schemes.	Monthly	Scheme-wise	I
11. Statistics from local bodies.	Annual	Group of local bodies according to population	I
12. Consumer preference survey.	ad hoc	-	I

REPORT OF THE AD-HOC WORKING GROUP ON
HOUSING AND CONSTRUCTION STATISTICS

At the 18th meeting held on 26th December, 1974 the Governing Council for the National Sample Survey Organisation while discussing the general question of the availability of data on construction had suggested that a Working Group be constituted by the CSO to examine the existing arrangements for collection of housing and construction statistics and to suggest appropriate measures for improving their scope and coverage through periodical surveys. Accordingly, an Ad-hoc Working Group on Housing and Construction Statistics was constituted early in 1975 under the Chairmanship of the Director, Central Statistical Organisation (CSO) with the following membership:

- | | | | |
|--------|--|-----|------------------|
| (i) | Dr. Rabindar Singh,
Director,
National Buildings Organisation | ... | Member |
| (ii) | Shri R.B. Chari,
Registrar General of India | ... | " |
| (iii) | Shri P.K. Srinivasan,
Joint Director,
Housing & Urban Development Division,
Planning Commission. | ... | " |
| (iv) | Shri V.R. Vaish,
Engineer-in-Chief,
C.P.W.D. | ... | " |
| (v) | Shri A.P. Farooq,
Director (C),
Bureau of Public Enterprises,
Ministry of Finance | ... | " |
| (vi) | Shri T.P. Abraham,
Director,
Survey Design & Research Division,
National Sample Survey Organisation.. | | " |
| (vii) | Mrs. Uma Roy Chaudhry,
Joint Director,
Central Statistical Organisation. | ... | " |
| (viii) | Dr. M. Holla,
Joint Director,
Central Statistical Organisation. | ... | Member-Secretary |

2. The Working Group met three times - in July, 1975, January, 1976 and May, 1976. At its first meeting, the Group considered two background papers prepared by the National Buildings Organisation (NBO) and the C.S.O., summaries of which are appended to this report (vide Appendix I). They briefly deal with the current status of housing and construction

statistics, the major data gaps and the manner in which the gaps may be bridged.

3. With a view to laying down a concrete programme for collection of data for housing and construction through periodical surveys of the NSSO, the Group invited the user organisations, particularly, the NBO, CSO and the Planning Commission to specify their data needs in full and the inter-se priorities. The N.S.S.O. was also requested to furnish details of (1) the nature of data on housing and construction collected in the previous rounds, (2) the extent to which these data have been processed so far, (3) the possibility of retrieving additional information from the results of the past rounds and (4) the end-use to which the available information has been put. Accordingly, two working papers - one highlighting the requirements of the user organisations and the other reviewing the role of the N.S.S.O. in collection and compilation of housing and construction statistics were submitted to the Group (vide Appendices II and III) and these were considered by the Group at its second meeting held in January, 1976.

4. On the basis of a detailed examination of various working papers, the Working Group has reached the following conclusions:

(1) There should be a fulfilled enquiry on construction which should be conducted once every five years. This should cover both building and non-building activities of the rural and urban households. The enquiry should also obtain information on items like housing conditions, input-output structure, volume of employment, investment in and financing of construction. A minimum list of items to be covered by the quinquennial survey is attached.

(2) The quinquennial survey may be so timed as to give information on the construction activity about the mid-point of consecutive population censuses.

(3) Information on certain items like type and stage of construction, alterations and additions, value of new construction (covering both building and non-building activities) undertaken by the households may be collected by the NSSO on an annual basis either through the house-listing schedule or through a separate household block designed for that purpose.

(4) Data on volume of production, consumption and distribution of building materials and the prices of such materials, volume of employment and wages of labour engaged in construction activity fall outside the purview of NSS socio-economic surveys and separate arrangements should be made for collecting such information.

(5) It is desirable to have a fulfilled housing census along with the Population Census programme. The question of having such a Census during the course of 1981 Population Census may be committed to the Advisory Group on Housing Statistics set up by the Ministry of Works and Housing.

LIST OF ITEMS REQUIRED TO BE COLLECTED IN THE PROPOSED
QUINQUENNIAL SURVEY OF HOUSING CONDITIONS AND CURRENT
CONSTRUCTION.

Group A: Household Characteristics

- Items: 1) household size and composition (male, female, adults, children, number of couples),
2) household industry - occupation code,
3) household monthly expenditure,
4) land owned (acres),
5) household group code, and
6) period since built.

Group B: Housing conditions

(a) Particulars of land and building

- 1) land area (sq.m.),
- 2) status of land (owned-1, rented-2, leased in-3, others-4),
- 3) status of dwelling (owned-1, rented-2),
- 4) plinth level (m),
- 5) plinth area (sq.m.),
- 6) type of dwelling (chawl-1, bustee-2, independent house-3, flat-4),
- 7) type of structure (kutcha-1, semi-pucca-2, pucca-3),
- 8) condition of structure (bad-1, moderately good-2, good-3),
- 9) sewage arrangement (no arrangement-1, unsatisfactory-2, moderately satisfactory-3, satisfactory-4, good-5).

(b) Particulars of room, wall, roof:

- 1) Living rooms with area of 4 sq.mt. and above
 - (i) No.
 - (ii) Area
- 2) Living rooms with area less than 4 sq. mt.
 - (i) No.
 - (ii) Area
- 3) Other rooms (such as godown, store house) with area of 4 sq.mt. and above
 - (i) No.
 - (ii) Area
- 4) Other rooms (such as godown, store house) with area less than 4 sq. mt.
 - (i) No.
 - (ii) Area

- 5) separate kitchen (yes-1, no -2)
- 6) wall type (mud, bamboo, reed-1, timber wood, C.I. sheet-2, concrete, stone-3, bricks-4, others-5)
- 7) roof type (straw, grass, bamboo, reed and mud-1, C.I. sheet, asbestos, tiles including country tiles-2, cement, concrete-3, stones including stone block-4, others (to be specified) -5).
- 8) floor type (mud-1, timber, wood, bamboo, reed-2, brick, cement stones-3, others (to be specified) -4).

(c) Particulars of water, sanitation and lighting facilities

- 1) source of drinking water (tap-1, well-2, tubewell-3, tanks and ponds-4, rivers, lakes and springs-5, canal-6, hand pump (drawing shallow water from underground) -7, tanker-8, others (to be specified) -9).
- 2) facilities of drinking water (for household's exclusive use-1, for community use-2, household sharing with other household in the same building-3, others-4).
- 3) Bathing facility - (i) bathroom within the premises (for exclusive use of household-1, shared with other households-2),
(ii) bathroom outside the premises (for exclusive use of household-1, shared with the other household-2)
(iii) No built up bath room.
- 4) type of latrine (flush system-1, septic tank system-2, service-3, no latrine-4, others (to be specified) -5).
- 5) latrine facility (as in c(2) above)
- 6) type of lighting (no lighting arrangement-1, kerosene-2, electricity-3, others-4).

Group C: Current building (residential/non-residential) construction

(a) Construction Particulars as on date of survey

a) For new construction (over last one year)

- 1) area of plot (sq.m.), plinth area, floor area,
- 2) value of plot (Rs.),
- 3) Building location (within block-1, within town-2, outside town-3),
- 4) commencement date,
- 5) completion date (if already completed),
- 6) whether building site owned (yes-1, no-2),
- 7) material used for (i) floor, (ii) wall, and (iii) roof separately (cement concrete-1, oven burnt bricks-2, stones-3, jack board/timber-4,

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- tiles-5, galvanised iron-6, asbestos cement sheets-7, marble stone-8, marble chips-9, others (specify) -10),
- 8) type of construction (residential family dwelling-1, non-family dwelling-2, non-residential industrial use-3, commercial use (shop, office, etc.) -4, institutions (schools, colleges, hospitals, library, place of worship) -5, residential-cum-commercial use-6, residential-cum-industrial use-7, others-8)
 - 9) type of structure (kutchha, semi-pucca, pucca),
 - 10) stage of construction (complete, incomplete),
 - 11) construction responsibility (owner undertaking construction with paid labour-1, fully given to contractor-2, contractor given partial responsibility-3),
 - 12) total estimated cost (Rs.),
 - 13) period since work started (months) (for building under construction)
- b) For alterations, additions and improvement (separately for major repairs and minor repairs), (over the last one year)
- 1) construction responsibility (codes as given)
 - 2) expenditure during the last one year (Rs.)
 - 3) total estimated cost (Rs.)
 - 4) type of construction (codes as given)
- *c) expenditure (quantity in std. units and value in rupees) on building (both residential and non-residential) construction: (over last one year)

The data need to be collected separately for (a) new construction, and (b) addition, alteration, improvement etc.

i)	<u>input items</u>	<u>Unit</u>	<u>Value (Rs.)</u>
1)	stone blocks	square metre	
2)	stone (chips, broken)	cubic metre	
3)	bricks (burnt, unburnt)	(000)	
4)	sand	cubic metre	
5)	cement	quintal	
6)	lime	quintal	
7)	wood and timber	cubic metre	
8)	tiles	(000)	
9)	asbestos sheets	metric ton	
10)	corrugated iron sheets	metric ton	
11)	iron and steel	metric ton	
12)	doors and windows	X	
13)	paints and varnishes	litre	

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<u>input itens</u>	<u>Unit</u>	<u>Value</u> <u>(Rs.)</u>
14) glass fittings	X	
15) bamboo, cane, reed	X	
16) straw and grass	X	
17) sanitary fittings	X	
18) electrical fittings	X	
19) plumbing and water supply fittings	X	
20) other materials	X	
21) materials supplied from home	X	
22) total	X	
ii) <u>Labour</u>		
1) labour hired skilled	man days	
2) labour hired unskilled	man days	
3) labour supplied from home	man days	
4) total labour	man days	
iii) <u>Other charges</u>		
1) architects' fee	X	
2) supervision charges	X	
3) municipal fees	X	
4) rental and hire charges for construction machinery and implements	X	
5) other charges	X	
iv) <u>grand total</u>	X	
*d) <u>expenditure (quantity in std. units and value in rupees) on other construction (over last one year)</u>		
i) type of construction (codes below); (agricultural land-1, development of other land-2, ponds-3, wells separately for tubewells, pucca and kutcha wells-4, tanks-5, canals and ditches-6, other water areas-7, orchards-8, reclamation of land-9, levelling of ground-10, raising of ground-11, cleaning of jungles-12, bringing of new land under cultivation-13, laying of new plantation-14, bunding-15, fencing-16, and others-17).		
<u>input itens</u>	<u>Unit</u>	<u>Value (Rs.)</u>
1) stone blocks	square metre	
2) stone (chips, broken)	cubic metre	
3) bricks	(000)	
4) sand	cubic metre	
5) cement	quintal	
6) lime	quintal	
7) wood and timber	cubic metre	
8) other materials	X	

<u>input item</u>	<u>Units</u>	<u>Value (Rs.)</u>
9) materials supplied from home	X	
10) iron & steel (e.g. fencing wires, poles etc.)	X	
11) permanent fixtures and fittings (e.g. those for pumping set, tubewells, etc.)	X	
12) total	X	
ii) <u>Labour</u>		
13) labour hired	man days	
14) labour supplied from home	man days	
15) other expenses	X	
iii) <u>total expenses</u>	X	

Group D: Source of finance: (for the expenditure incurred over the last one year)

For (a) and (b) below, the data will be collected under the breakdown (i) amount (Rs.), (ii) rate of interest and (iii) year of repayment.

a) borrowing from employers (Rs.)

- | | |
|------------------|------------------------|
| 1) Government, | 2) Public Undertaking, |
| 2), Private, and | 4) others |

b) borrowing from other sources (Rs.)

- | | |
|---------------------------|-------------------------|
| 1) Government, | 2) Cooperative bank, |
| 3) insurance companies, | 4) Provident Fund, |
| 5) commercial bank, | 6) housing association, |
| 7) housing agency, | 8) money lender |
| 9) friends and relatives, | &10) others. |

c) Own sources (Rs.)

- | | |
|------------------------------------|-----------------------|
| 1) savings, | 2) pension, gratuity, |
| 3) inherited wealth, | provident fund, |
| 5) subsidy and outright grant, and | 4) gifts |
| | 6) others. |

d) total:

* Only information on the value of the items are to be collected for the items for which 'X' marks have been given for the standard unit.

CURRENT STATUS OF HOUSING AND CONSTRUCTION STATISTICS

For the consideration of the first meeting of the Ad-hoc Working Group on Housing Construction Statistics, two working papers were prepared - one by the NBO and the other by the National Income Division of the CSO. These papers discuss the position of housing and construction statistics and the salient features presented in them are summarised below:-

National Buildings Organisation: The NBO has discussed the position of housing statistics under eight heads namely, (a) Housing stock, (b) current housing statistics, (c) Housing conditions, (d) Housing construction and finance, (e) Statistics of building materials, (f) Statistics of employment in the building construction, (g) Prices of building materials and wages of building labour, and (h) Consumer preference surveys.

(a) Housing Stock: Estimation of housing requirements is dependent on the availability of data regarding inventory of housing stock and its characteristics. Such data are provided by organising a "Housing Census". In India, no housing census has been conducted so far. However, at the instance of the NBO a standardised house-listing schedule was introduced in the 1961 population census and the same was repeated in 1971 census. The data thrown up during the house-listing operations was of a limited value in as much as the same do not permit a detailed analysis of the housing situation in the absence of the necessary information about the facilities and amenities available in the census house and the characteristics of the occupants residing in the census houses. These house-listing operations cannot, therefore, be equated to a housing census and it has been suggested that the same may be conducted along with the population census of 1981.

(b) Current housing statistics: The data on housing stock along with those on the population and other household characteristics help in assessing the present and future housing requirements which are utilised in formulating the housing programme. The volume of construction to be provided for in housing programme depend upon the existing rate of construction and also to what extent it could be expanded. For this purpose, the data on current housing statistics are needed giving information on nature of construction (new construction, additions or alterations), type of construction (residential or non-residential), floor area and investment. These characteristics broadly indicate the output of the housing and building industry in terms of numbers, rooms, area etc.

The NBO tried to collect the necessary data by sponsoring a plan scheme on current housing statistics to be implemented by the State Governments and the Central Construction Agencies. The scheme envisaged a three-tier arrangement by locating one statistical cell in the PWD to collect data on building projects costing Rs.20,000 or above in the public sector, the second cell in the local-Self Government Department to collect data about

private building constructions in municipal areas in towns having population of 10,000 or above and the third one in the SSBs to provide guidance to the aforesaid two cells and co-ordinating the data in a manner so as to build up the total picture at the State level and undertake analytical studies on housing and building activity. Although all the States except West Bengal and Haryana had agreed to take up the scheme, they have not evinced much interest in the implementation of the scheme. As a result, the progress under the scheme is slow and in a few States it is actually retarding. Independently of the three-tier scheme, the NBO tried to collect data on current housing through the NSSO. A survey on "investment in and sources of financing in building construction", in urban areas conducted during 1971-74 was intended to provide data about the number of pucca and semi-pucca houses, completed by sizes. As regards rural areas, data regarding number of pucca houses constructed was collected from 22nd round onwards with the exception of 25th round, where this item was dropped. In the 27th round, a separate schedule on housing and building activity was introduced.

(c) Housing conditions: The quality of the housing stock could be judged by the housing conditions. The National Sample Survey started collecting some essential data on housing conditions and facilities in urban and rural areas from the 7th round (October, 1953-March, 1954) and continued to collect the same with varying items of information till the 23rd round. From 24th round to 27th round, enquiry on housing conditions was dropped but in 28th round (October, 1971-June, 1974) a separate schedule on housing condition has been introduced. The data collected through NSS on housing conditions give information on various isolated items pertaining to different periods with the results that it is not possible to build up an integrated picture of housing condition, apart from the fact that the data collected on all the items have not been tabulated.

(d) Housing construction and finance: Housing construction is undertaken in Government, corporate and non-Government-non-corporate sectors. Under the scheme of current housing statistics sponsored by NBO, data on construction undertaken by the Government agencies including public undertakings, was to be collected but the scheme as pointed out earlier has not made any satisfactory progress. In regard to corporate sector, an effort was made by the NBO to collect the information through the Department of Company Affairs. Here again, the response to the questionnaire issued by the Department of Company Affairs to about 27,000 companies at work in 1968-69 has been very poor as only 18% of the companies sent their replies. As for the investment in housing and building by the household sector, the NSSO had organised an intensive sample survey during 1971-74 in urban areas while for rural areas, a schedule on current building activity was canvassed in the

27th round as a part of the socio-economic enquiry. Both these surveys organised through NSSO are expected to yield a good deal of information on investment in and financing of building construction by the household sector.

(e) Statistics of building materials: While statistics of production of certain building materials like cement, steel, sanitary wares and sheet glass produced in the organised sector are available, similar information for other materials like bricks, tiles, lime and timber produced in the unorganised sector are not available. Even the available data don't give the break-up of consumption of materials separately for the building industry.

(f) Statistics of employment in the building construction: In the fourth Plan the NBO sponsored a statistical scheme to be implemented by the DGET for improving the coverage of the construction sector under their Employment Market Information Programme. While the steps taken by the DGET has improved the coverage in the private sector, the collection of employment data in private sector still requires the streamlining of the procedure for the regular flow of the data on employment in building sector.

(g) Prices of building materials and wages of building labour: A time series data on building materials, prices and wages of building labour have been built up in the NBO for a few centres and more centres are added every year.

(h) Consumer preference surveys: The composition of the household changes as a result of the economic factors and changes in social values. This affects materially the likes and dislikes of households in respect of design of the buildings which in turn has a bearing on the cost of construction. NBO has conducted consumer preference surveys to study the consumer needs and preferences for housing in relation to income, educational levels, demographic factors and other characteristics. These surveys provide basic materials for designing houses so as to give maximum satisfaction to the occupants.

2. To sum up, the NBO have put forth the following suggestions:

- (i) "A Housing Census" should be conducted in 1981 in conjunction with the population census.
- (ii) Till the scheme for the collection of data on "Current Housing Statistics" is put on a sound footing, the NSSO may collect data about the number of new pucca, semi-pucca and kutchra houses constructed in urban and rural areas by including this item of information in the listing schedule in each round.
- (iii) NSSO should include in their work programme the requirements of NBO particularly relating to the collection of information on housing conditions, investment and production statistics of building materials. They should

also take up on a priority basis the tabulation of the data collected earlier in respect of housing conditions.

Central Statistical Organisation (National Income Division):

3. Measurement of total value of construction undertaken during a given year is of utmost importance as it forms more than half of total fixed capital formation in the economy. Value added by construction activity undertaken during a given year is also essential for measurement of net national product or national income.

4. At present, though data exist on expenditure on construction in public sector and organised private sector, no information is available on the construction activity carried out in unorganised sectors and within the individual households. The estimates of total value of pucca-construction and prepared using data on net availability of construction materials and labour inputs. From the total estimates so obtained, the share of institutional sectors for which independent data on expenditure on construction are available, namely, public and private corporate sectors are deducted to arrive at the estimates of the residual sector. This methodology as applied for arriving at all India estimates suffers from a number of limitations due to paucity of basic data, in as much as no satisfactory information exists on the proportions of trade and transport margins required for estimating the value of construction materials at consumers' prices, the proportions of the cost of basic construction materials to the total cost of all materials used for construction by types of construction like buildings, roads, bridges etc. and the proportion of factor payments to the total value of construction by types.

5. For the residual sector covering the unorganised sectors of the economy and the households, the only possible source of data on construction activity whether at the national or at the State level, is the sample surveys except for such administrative records on new construction which might be available with the municipalities. In so far as sample surveys are concerned, data on capital formation in the household sector was collected for the first time by the NSSO in the 15th round (1959-60) covering rural areas, giving information inter-alia on expenditure on construction of residential houses, non-residential houses and other structures. Almost similar data at the State level were collected for the urban household sector in the 17th round of the NSS. Data on capital formation in household sector was collected in respect of both urban and rural areas in the 19th round of the NSS (July, 1964-June, 1965) giving information on expenditure on constructions, improvement and major repairs of pucca, semi-pucca and kutcha buildings as also improvement and major repairs of land. However, no information on private unincorporated enterprises and non-profit institutions serving households was collected at all in the survey nor any information

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given regarding input structure for different types of construction or the distribution of construction of buildings between residential and non-residential. The NSSO at the instance of NBO collected some data on construction of pucca houses in rural and urban areas in the 22nd and 23rd rounds while details regarding the various aspects of expenditure incurred by rural and urban households were collected for the period 1972-73 along with its 27th round.

Similar data have again been collected by the NSSO in its 29th round (July, 1974-June, 1975). As regards the data on building construction available in municipal records, it is seen that the information relates only to the number of plans sanctioned for new construction and do not contain data on cost of construction. For major additions/alterations, in the existing buildings, no approval is generally necessary and hence no information is available. Available information, therefore, relates only to number of plans sanctioned and the rental value.

6. It would, therefore, be seen from the foregoing para that no satisfactory data exist for any bench-mark estimates on construction activity in the unorganised sectors of the economy and the households. Further, there is no regular flow of the data necessary to measure the change in the construction activity over time. It has, therefore, been suggested that the NSSO in one of its future rounds, devote major part of its resources to an intensive survey of the construction activity in the residual sector covering both the households as well as unincorporated households and non-household enterprises in the rural and urban areas. The survey should obtain information on (i) construction undertaken by households either directly or through contractors for residential purposes as well as for household establishments; (ii) construction undertaken by unincorporated enterprises either directly or through contractors in rural and urban areas; (iii) other construction activities such as improvement of land, minor irrigation works, grain golas, cattle sheds, etc. undertaken by the households.

Requirements of user organisations of
housing and construction statistics.

At its first meeting held in CSO in July, 1975, the Working Group on Housing and Construction Statistics desired that the user organisations may draw up detailed notes on their data needs and indicate how much of it could possibly be obtained by the survey techniques followed in the NSS and what should be the inter-se priority among the items of data to be collected. Based on the notes received from NBO, Planning Commission and National Income Division of the CSO, the data requirements indicated by them are briefly described as under:

(1) National Buildings Organisation

NBO has indicated its data requirements under following six sub-heads:

(a) Rate of house construction in urban and rural areas:

The latest information collected about pucca, semi-pucca and kutcha houses with details about the type and stage of construction in respect of both urban and rural areas relate to the 28th round of the NSS. NSSO should collect this information on housing and building construction in urban and rural areas regularly through the listing schedules. This information is considered useful in assessing the output of housing and building industry which is not available from any other source.

(b) Housing Condition:

In its 28th round, the NSSO collected information on housing condition. As housing conditions do not, however, change very rapidly, it has been suggested that the data on the same may be collected once in five years preferably a year close to the 1981 census so that the census and sample survey data can together provide an adequate picture of the housing situation in the country.

(c) Investment in and financing of building construction in urban and rural areas by the household sector:

For that part of the household sector falling outside public and private corporate sectors, it is suggested that the data on investment in and financing of building construction in both urban and rural areas should be collected through sample surveys. The NSSO has already collected information in the recent past (for urban areas in 1972-74 and for rural areas in 1972-73) and it is desirable that the survey is organised at periodical intervals once in three years, the next one preferably in 1979.

(d) Production of building materials in the unorganised sector:

NSSO may design a special survey to collect data about building materials like bricks, lime, timber, tiles and the enquiry may be repeated once in three years.

(e) Trend in size and composition of household:

At the instance of NBO, NSSO collected data on the size and composition of the households with other details such as marital status, age, relationship with the head etc., in the 22nd and 23rd rounds and it is suggested that the same may be collected more frequently at least once in two years.

(f) Statistics of housing construction by employers for their employees in the industrial sector:

At present information is collected by the NSSO as a part of their annual survey of industries which may be continued.

(2) Planning Commission:

The Planning Commission has suggested the collection of the data under the following nine broad categories out of which information on three items namely (i) current housing statistics, (ii) production, consumption and distribution of building materials, (iii) investment and its distribution and sources of financing of various residential constructions are common to those suggested by NBO:

- (i) Housing Census
- (ii) Current housing statistics
- (iii) Production, consumption and distribution of building materials
- (iv) Prices of building materials
- (v) Volume and type of employment in housing and building activity
- (vi) Wages of building labour
- (vii) Investment and its distribution on various types of residential and non-residential building constructions
- (viii) Sources of financing of various residential and non-residential constructions and
- (ix) other data

Information collected in the 1971 census through house-listing schedules was not adequate and left many gaps unfilled such as the classification of housing units by the facilities available therein for living (for example, water supply, toilet, electricity, bath etc.) rental value of the housing unit, capital cost of the unit, year of construction, demographic, social and economic characteristics

of the households. It has, therefore, been suggested that a fullfledged housing census covering as many items as possible on housing stock and housing conditions should be organised for the purpose of providing a valuable guide for policy formulation in the field of housing. As building materials constitute about 70 to 75 per cent, and labour costs account for some 25 to 30 per cent of the total cost of the building construction, it is suggested that the prices of the building materials and wages of building labour along with volume and type of employment should be collected. Information on investment and its distribution and sources of financing should also be collected in respect of non-residential constructions. In addition to building construction, it would be essential to collect statistics regarding other construction activities as detailed information with regard to the construction activities as a whole are of vital importance in the field of input-output studies. The commodity-wise detailed information on the input structure of the entire construction sector, is at present very inadequate. The input-output table is the main tool used in the input-output model for projecting plan targets for various sectors of the economy. The table, therefore, should be based on reliable and adequate data on inputs and outputs of various sectors. Examples of other construction activities are reclamation of land, improvement of land, bunding, construction of wells, tanks and other irrigation sources, laying of orchards and plantations, construction of cattle-sheds and other types of farm construction, irrigation dams, road construction, bridges etc. For the purpose of an input-output table, the cost of different types of construction materials and various types of services (banking, insurance, transport, medical etc.) is required together with the actual volume of employment and wages and also the total output (value) of the different categories of construction. Similarly, information on repairs and maintenance on construction, are also required separately for private sector, public sector and the rest.

While the existing surveys conducted by the NSSO in regard to housing statistics should be repeated as often as possible, some of the statistical requirements indicated above could also be included under the household surveys of the NSSO especially for collecting data regarding construction materials in unorganised sector.

(3) Central Statistical Organisation (National Income Division):

Data on total value of construction undertaken during a given year is essential for measurement of capital formation during the year and of the contribution of construction activities in net domestic product. Information on value of construction undertaken either in the household sector or in the unorganised unincorporated enterprises is not, however, available and, at present, only rough estimates are prepared

using broad indicators. In addition to collecting data on the total expenditure on construction, it would also be useful to obtain information on input structure (construction materials and labour) for different types of construction so that the commodity flow approach can be applied to obtain an independent estimate of total value of construction undertaken and its contribution to net domestic product.

The National Sample Survey in its past rounds has collected data both on the input structure and the total value of construction for households. The latest in the series is in the 27th round under household schedule (c): Survey on investment and financing of building construction canvassed for urban area and schedule No.1.4 of current building activity in rural area. These schedules can be used for the future surveys on the subject with the following modifications:

- (1) The survey should cover both household and non-household unincorporated enterprises. For households, data should be collected both on construction for residential purposes as well as for non-residential purposes i.e. for household enterprises.
- (2) The survey should collect information separately for different types of construction viz. residential buildings, non-residential buildings and other construction works such as reclamation and improvement of land, bunding, wells, other irrigation works, laying of orchards and plantations, cattle sheds, storage depots etc. A complete list of different types of construction to be covered is annexed in Statement I.
- (3) The schedules should be amended to have separate blocks for new construction (including incomplete construction) major additions and alterations which add to the value of asset and current repairs and maintenance separately by types of construction, viz., pucca, semi-pucca and kutcha.
- (4) The schedules should be extended to cover a few more items of inputs, the details of which are given in Statement II annexed.

As regards the survey techniques, it will not be possible to cover the unorganised unincorporated enterprises construction by types through household approach although the same could provide information on construction both for residential and non-residential purposes. Area sampling survey approach could be one of the techniques adopted for covering the entire construction activity including the construction undertaken by the public and private corporate sectors once the area where construction activities are concentrated, can be located within the sample villages and

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urban blocks. In the case of enterprise approach, the coverage will be limited to non-household unincorporated enterprises only. Comprehensive surveys covering the entire construction activity including the unorganised sectors and the households should be undertaken either following area approach or a household-cum-enterprise approach at regular intervals and the same be supplemented by collecting data on broad indicators on annual basis for the purpose of building up the series. One of the most convenient indicators for the purpose could be the value of new construction undertaken during the year by households and unincorporated enterprises and the same could be collected in the household block of the annual NSS surveys irrespective of the subject covered in that particular round of the survey.

2. It is seen from the position summarised in the foregoing paragraph that a fulfilled survey of construction activity could be organised once in five years through one of the future rounds of the NSS while for items like investment in and sources of financing, production of building materials and trend in size and composition of households, the data could be collected at an interval ranging from two to three years. For purposes of comprehensive survey, Statement I Type of construction, and Statement II List of Items to be covered, could serve as an output and input tables respectively with a few more additions to these tables as indicated by Planning Commission and NBO. In so far as information on housing stock or rate of house construction in urban and rural areas and the value of new construction undertaken during the year by households and unincorporated enterprises is concerned, the same could be collected on annual basis through the listing schedules of the NSS or through the household block of the annual rounds of the NSS.

Annex

STATEMENT I : Type or Construction

1. Residential Buildings
 - 1.1 residential family dwellings
 - 1.2 residential non-family dwellings.
2. Non-residential buildings
 - 2.1 for industrial use (agriculture, manufacturing, etc.)
 - 2.2 for commercial use (shop, office, etc.)
 - 2.3 institutions (school, college, hospital, library, places of worship, etc.)
3. Other construction except land improvement (undertaken in non-household sector.)
 - 3.1 railway road, beds and rail roads,
 - 3.2 roads
 - 3.3 airports
 - 3.4 bridges, viaducts, sub-ways and tunnels
 - 3.5 sewers, pipelines, drainage and sanitation projects, water supply, gas mains and pipes
 - 3.6 telephone and telegraph lines, electricity transmission lines etc.
 - 3.7 canals and water-ways, water power projects, dams and dikes, wells, other irrigation and flood control projects.
4. Land improvement, plantation and orchard development:
 - 4.1 Land improvement
 - 4.1.1 Land reclamation and land clearance
 - 4.1.2 bunding, terracing and other land improvement
 - 4.1.3 afforestation of timber tracts and forests
 - 4.2 plantations and orchards.
 - 4.2.1 tea, coffee, and rubber plantations
 - 4.2.2 other fruit bearing and sap-bearing plantations and orchards.

STATEMENT II : List of items to be covered

Urban
Rural

1. stone blocks
2. stone (chips broken)
3. bricks
 - * (a) pucca (burnt)
 - * (b) kutcha (unburnt)
4. sand
5. cement
6. lime
7. timber and round wood
 - * (a) sawn (other than railway sleepers)
 - * (b) round wood

-(110):-

8. tiles
9. asbestos sheets
10. corrugated iron sheets.
- 11* iron and steel structurals
- 12* iron bars and rods
13. other iron and steel goods
14. doors and windows (wooden)
15. paint and varnish
16. sanitary fittings
17. electrical fittings
18. plumbing and water supply fittings
19. bamboos
20. thatch
- 21* items required for electricity transmission and distribution
 - (a) wires
 - (b) poles
 - (c) other materials
- 22* telephone and telegraph
 - (a) wires
 - (b) cables
 - (c) poles
 - (d) other material
23. sewer and drainage pipes
 - (a) cement
 - (b) iron
 - (c) others
 - (d) other material
24. water supply
 - (a) pipes
 - (b) other material
- 25* railway lines
- 26* railway sleepers
- 27* other railway track material
- 28* coal-tar, bitumen etc.
29. other items (specify major items)
30. labour hired
 - (a) skilled
 - (b) unskilled
31. supplies from homes
 - (a) materials
 - (b) labour
32. architects fee
33. municipal fees etc.,
34. other expenses

Items marked (*) indicate the additional information which has not been covered in 27th round.

Housing & Construction Statistics -
Collection and Compilation in past rounds of NSS

1.0 Introduction: Housing & Construction Statistics are an important socio-economic or level of living indicator. It is, therefore, only natural that almost since the beginning of its existence the National Sample Survey (NSS) started collecting data on Housing Condition and also subsequently on Current Building (Construction) Activities on a country-wide basis. The role of NSS in collection & compilation of housing and construction statistics will be discussed in the following paragraphs:

2.1 Statistics on Housing Condition:

(a) Collection: NSS started collection of data on housing condition and on availability of the basic facilities within the houses, such as, drinking water, sewerage, etc. both in rural and urban areas from the NSS-7th round (October 1953-March 1954). But the collection of data on housing condition formed only a part of the main enquiry, i.e. the enquiry on consumer expenditure. Only a separate block for items on housing condition was attached to the main Schedule on consumer expenditure. Of course, this particular survey on housing condition was exploratory in nature. The same procedure was, however, followed up to the 11th round.

In the NSS-12th round, instead of tagging a block with the Schedule on consumer expenditure, a separate Schedule for collection of data on 'housing condition and vital statistics' was canvassed. In this round also exclusive emphasis was not given on the collection of data on housing condition.

In the 13th and 14th Rounds, 'housing condition' was not included in the subject coverage of the NSS. Again from the 15th Round onwards till the 23rd Round, a separate block having items on housing condition was tagged with the main Schedule on consumer expenditure. No enquiry on housing condition was undertaken in the 24th to 27th Round. In the 28th Round, for the first time, a comprehensive enquiry on housing condition was conducted both in rural and urban areas with a very large sample base.

Apart from the general survey, which covered the entire population, at the instance of the Ministry of Home Affairs, a special survey on housing conditions of scheduled tribes households of Manipur and Tripura was conducted by NSS in its 18th Round (June 1963-May 1964).

An important point to be noted is that only on a few items data have been collected in all the Rounds. Some of the items were repeated in successive surveys and subsequently dropped to allow other new items to take their place. As a result, no time series on a large number of items of information could be built up. Another important point is that no standard

definitions for different items were uniformly adopted in these surveys for making the data amenable to comparison over rounds.

Whatever little information have been collected on housing condition through NSS till the 23rd Round, the requests for inclusion for such enquiries mainly came from two Organisations: the CSO and the NBO. Some participating States also occasionally suggested inclusion of this subject in NSS in some of its Rounds.

Before setting up of the Governing Council of NSSO, the Programme Advisory Committee (PAC) of the NSS used to take final decision on the NSS subject coverage for each Round. Among the Organisations who were represented in the PAC, the name of the Central Statistical Organisation, the Indian Statistical Institute and the Planning Commission may be particularly mentioned. The PAC was responsible for taking decision both on the subject coverage and also tabulation programme of NSS Rounds.

(b) Tabulation: Altogether information on 30 items relating to housing conditions was collected in the different earlier NSS rounds. Out of these 30 items, very few common items were included in all the Rounds. Only 13 out of the above 30 items have been covered in tabulation. Again, for some of the NSS Rounds (8th, 9th, 20th, 21st, 22nd & 23rd), no tabulation of housing condition data was taken up. The primary reason of exclusion of items of data on housing condition from tabulation was the paucity of tabulation resources. The resources being given, the priority (in tabulation) was assigned to the items of data on consumer expenditure and in consequence the data on housing condition which were assigned relatively much lower priority were pushed back with the expectation that it would be possible to tabulate them on some future date. A table showing the items of data collected in different rounds, the extent of tabulation of data and the number of Reports already released is given in the Annex.

Subsequently, however, the back-log in tabulation mounted up and the PAC and in the recent period the Governing Council of the NSSO decided in favour of assigning higher priority in tabulation to the survey data of relatively current rounds and thereby the chance of earlier rounds data being tabulated is quite remote. NSSO Governing Council has recently taken a more positive decision of abandoning the idea of tabulation of any data collected earlier than 23rd round.

The data on housing condition surveys tabulated so far are available at all-India level separately for rural and urban areas except for the results of 10th, 11th and 12th Rounds for which some tables have been presented for six population zones in rural areas and for three size class of towns in urban areas.

(c) Release of Reports: The tabulated results of 7th, 10th, 11th, 12th, 15th, 16th, 17th, 18th, and 19th Rounds are available respectively in NSS Report Nos. 26, 50, 51, 57, 146, 137, 150, 170, 195. The results thrown-up from the special survey on housing conditions of Scheduled Tribes households of Manipur & Tripura were presented in the NSS Report No.169.

3.1 Statistics on Current Building Activity (Construction):

Collection of Statistics on Current Building Activity i.e. the Construction Statistics are required to measure the quantum and the extent of capital formation in the construction sector which forms an important segment of National Accounts. Also for planning the country's housing programme, current statistics on (i) the nature of construction (new construction and improvements by way of additions or alterations), (ii) type of construction (residential or non-residential), (iii) floor area, and (iv) financing of and investment in building construction are needed. In the NSS, Statistics on all these aspects were collected. Emphasis was laid on different aspects in different NSS Rounds. The details of which are given below:

(1) Collection: (a) Since the 15th Round (July, 1959-June, 1960) NSS, mainly at the instance of the Central Statistical Organisation started collecting data both in rural and urban areas on different aspects of construction statistics. The National Income Division of CSO was also eager to get data on capital formation for the construction sector. In the NSS-17th Round (September, 1961-June, 1962) data, similar to that obtained from the NSS-15th Round, were also collected.

(b) Subsequently, at the request of the National Buildings Organisation a count of residential pucca houses completed during 365 days ending on the day previous to the day of household listing in sample villages and urban sample blocks was taken through NSS listing schedules O.1 and O.2. Similar data were collected in the NSS-23rd and the NSS-24th Round. In the 24th Round, the enumeration of completed pucca houses, however, was restricted to rural areas only. In the NSS-25th and 26th Round, no data on current construction activity were collected.

(c) In the NSS-27th Round, again, complete listing of all pucca, semi-pucca and kutcha houses completed during the 365 days preceding the date of household listing and also a list of all new constructions (pucca, semi-pucca and kutcha) started during the same period were made through the NSS listing schedules O.1. and O.2. This enumeration, was however, conducted only in rural areas.

(d) In the NSS-28th Round, following the same procedure of enumeration at the household listing stage, a complete count of (i) completed buildings, (ii) new buildings under construction, and (iii) buildings in which additions, alterations and improvements were made, was taken with separate

breakdowns for (i) pucca, (ii) semi-pucca, and (iii) kutcha and also for purposes (i) residential, and (ii) non-residential.

(e) To determine whether household is the suitable sampling unit for surveys on building construction, NSS undertook a Pilot Enquiry in the 22nd Round (July, 1967-June, 1968). Drawing upon the results of this Enquiry, the sampling frame prepared for the survey on Current Building Activity conducted by NSSO in its 27th and subsequent Rounds was suitably adjusted.

(f) The NBO sponsored in 1971 a "survey on Investment in and financing of building construction in urban areas" for which data collection was done by NSSO. The survey was undertaken to collect information on different aspects of new construction and additions and improvements for only pucca and semi-pucca structures, construction of which was in progress or was completed during 365 days preceding the date of survey. Only household construction was brought under the survey coverage. The survey was conducted in two phases. The first phase was started in May, 1971 and was completed in 1974. The second phased named as "Report Survey" was started in November, 1974.

(g) Again, along with the main NSS enquiry in the 27th Round, a parallel survey sponsored by NBO was conducted by NSSO. The survey entitled "Current Building Activity in Rural Areas" was meant for collection of data on construction activity for rural households during 365 days preceding the date of survey. In this enquiry data on all completed and incomplete structures in the sample village were collected through two schedules 1.4 and 1.4(s).

(2) Tabulation: (a) The survey data of the NSS-15th Round were tabulated to generate the following tables:

- (i) Per household expenditure in quantitative and monetary terms on construction and improvement of residential/non-residential building and structure.
- (ii) Percentage distribution of different items of expenditure on residential/non-residential building and structure.
- (iii) Per household addition to floor space by type of structure for residential/non-residential building and structure and per capita addition to floor space for residential building only.
- (iv) Percentage distribution of source of finance separately for construction, improvement.

The tabulated results were presented in the NSS Report No.97.

(b) The NSS-17th Round Survey data on construction activity were tabulated to generate the following tables:

- (i) Per household expenditure on some broad items of construction and improvement of buildings and other structure - separately for residential and non-residential type.
- (ii) Per household expenditure on building materials and for construction and improvement of buildings and other structures - separately for residential and non-residential type.
- (iii) Per household expenditure on purchase and construction of new physical assets (including buildings and other structures).
- (iv) Percentage distribution of expenditure on purchase and construction of new physical assets (including buildings and other structures).
- (v) Per household expenditure on purchase of new buildings and other assets.
- (vi) Per household expenditure on construction and improvement of non-residential buildings and other structures.

The tabulated results were presented in the NSS Report No.136.

(c) The count of the number of pucca houses for residential purposes only completed during the 365 days preceding the day of household listing taken while listing households in sample villages and urban sample blocks in the NSS-22nd Round were tabulated and results were presented in the NSS Report No.171.

(d) Similar counts taken at the household listing stage in sample villages and sample blocks in the NSS-23rd Round were tabulated and presented in the NSS Reports No.211 and 212.

(e) Similar data collected in the NSS-24th and 27th Rounds in rural areas only have not yet been tabulated as the necessary resources required for tabulation were not made available.

(f) The tabulation of the similar counts of pucca, semi-pucca and kutchha houses - both residential and non-residential taken during the NSS-28th Round household listing in sample villages are at an advanced stage of tabulation and the data will be released soon.

(g) The results of the Pilot Enquiry on Building Construction conducted in the NSS-22nd Round were tabulated to generate the following tables:

- (i) Percentage distribution of blocks by density of building construction based on information available from (a) on the spot enquiry and (b) municipal records.
- (ii) Percentage of houses reporting new construction, addition and improvement.

- (iii) Percentage distribution of houses by construction type and by purpose.
- (iv) No. of complete and incomplete new houses, houses carried out additions and improvements.
- (v) Per household expenditure on construction, additions and improvements.
- (vi) Percentage of household with electricity and drinking water facilities.

4.1 Retrieving of data collected in the earlier NSS Rounds:

It has been shown in the foregoing paragraphs that not all the data on Housing Conditions and on Current Construction activity in different NSS Rounds have been tabulated. For some rounds collected data have not been tabulated at all and for other rounds only partial tabulation has been done.

Now, while considering the question of the feasibility of retrieving the data collected in the earlier rounds, one should perhaps decide to what use these data would be put to. Excepting, perhaps, the utilisation of the data of earlier rounds for constructing some time series or for other historical analysis, no immediate purpose will be served with the old data. Secondly, the punched cards on which the data have been transferred may not now be in useable condition at all and also the question of transferring the data from the old schedules may be simply ruled out on the ground that reading of data from the Schedules will be an impossible task. So, we may forget about the data collected in 8th, 9th, 10th, 11th, 12th and 15th Rounds considering them as too old and therefore unuseable.

The question of tabulation of data collected in more recent Rounds i.e. in the 20th, 21st, 22nd and 23rd Rounds may be considered. But, on this issue also the NSSO Governing Council has taken a decision of not tabulating NSS data collected earlier than 23rd Round in view of serious shortage of resources. But, if resources, other than those available in the Data Processing Division of NSSO, can be made available, there is no difficulty in making the collected data useful for further analysis and study. Of course, some of the punched cards on which the data have been transferred may have to be reproduced in view of those having been damaged in course of past years. This is a matter of policy decision and should be tackled at the appropriate level.

DATA COLLECTED ON HOUSING CONDITIONS IN VARIOUS ROUNDS OF NSS

NSS Round	Item coverage	Report released or not	Items tabulated
(1)	(2)	(3)	(4)
<u>7th round</u> (Oct. '53- Mar. '54)	1. Plinth type 2. Wall type 3. Roof type 4. Latrine type 5. Drinking water type 6. Period built since 7. Period repaired since 8. Number of rooms 9. Floor space (sq.ft.) 10. Cost of construction & improvement of house during the reference period.	Report No.26	All items except 6, 7 and 10
<u>8th round</u> (Jul. '54- Oct. '54)	as in the 7th Round	No Report.	
<u>9th round</u>	item 1 to 9 same as above & in addition 10. rented or not rented 11. if rented, monthly rent.	No Report.	
<u>10th round</u> (Dec. '55- May. '56)	12. if not rented, cost of repair & maintenance during the reference period.	Report No.50	All items except 6, 7, 10, 11 & 12.
<u>11th round</u> (Aug. '56- Jan. '57)	Same as in the 9th & 10th rounds and in addition the following item: 13. Approximate evaluation on the date of survey	Report No.51	All items except 7, 10, 11, 12, & 13.
<u>12th round</u> (Mar. '57- Aug. '57)	Item 1 to 11 same as for 9th & 10th round. Additional information was obtained on the following: room area, covered verandah area, courtyard area, distance of the source of	Report No.67	All items except 6,7, 10,11 covered verandah, courtyard area, reason for dissatisfaction with refer-

Contd....

(1)	(2)	(3)	(4)
	<p>drinking water, bath type, kitchen type & reason for dissatisfaction, if any, with reference to the condition of the house and local facilities (medical, educational, market).</p>		<p>once to the condition of the house etc. information on building & repair works.</p>
	<p>In addition to housing conditions, information was collected on building and repair works during last year.</p>		
<p>5th round (Jul. '59- Jun. '60)</p>	<ol style="list-style-type: none"> 1. type of dwelling 2. number of storeys 3. sewerage or drainage system. 4. condition of structure 5. ventilation 6. passage to dwelling 7. period built since 8. number of households 9. plinth 10. wall 11. roof 12. number of rooms 13. area of rooms 14. area of roofed verandah, corridors. 15. area of roofed kitchen, stores, bath & stairs. 16. total floor area 17. kitchen 18. latrine use 19. latrine type 20. bath 21. drinking water: source 22. drinking water: distance 23. lighting, type 24. tenure status 25. ownership 26. rented, not rented 27. if rented, monthly rent 28. portion used for non-residential purposes. 	<p>Report No.146</p>	<p>Only items Nos.1, 12, 16, 19, 21, 22,23 & the rest not tabulated.</p>

<u>16th round</u> (Jul. '60- Aug. '61)	1. condition of structure 2. period built since 3. drinking water source 4. drinking water distance 5. rented, not rented 6. if rented, monthly rent 7. if not rented, the cost of repair and mainten- ance during the last year.	Report No.137	All itens
<u>17th round</u> (Jul. '61- Jun. '62)	as in the 16th round	Report No.150	All itens except 3, 4 & 5.
<u>18th round</u> (Feb. '63- Jan. '64)	as in the 17th round 1. structure type 2. age of house 3. latrine type	Report No.170	All itens except 5.
<u>19th round</u> (Jul. '64- Jun. '65)	4. source of drinking water 5. number of rooms 6. floor space 7. rented, not rented 8. if rented, monthly rent 9. cost of minor repairs & maintenance during last year,	Report No.195	All itens except item 9.
<u>20th round</u> (Jul. '65- Jun. '66)	As in the 19th round	Report not available.	Not tabu- lated.
<u>21st round</u> (Jul. '66- Jun. '67)	As in the 20th round	-do-	-do-
<u>22nd round</u> (Jul. '67- Jun. '68)	1. type of structure 2. period since built 3. type of latrine 4. source of drinking water 5. bathing facility 6. cooking facility 7. number of rooms 8. floor space 9. whether rented 10. monthly rent 11. cost of minor repairs & maintenance during the last year.	-do-	-do-
<u>23rd round</u> (Jul. '68- Jun. '69)	As in the 22nd round	-do-	-do-

(1)	(2)	(3)	(4)
<u>28th round</u> (Oct. '73- Jun. '74)	<ol style="list-style-type: none"> 1. area of the plot 2. land: owned, rented or leased in 3. tenure status of the household. 4. monthly rent. 5. plinth level. 6. plinth area 7. type: chawl, bustee, independent house or flat. 8. type of structure 9. condition of structure 10. period since built 11. period since last major repairs undertaken 12. sewerage arrangement 13. number of living rooms 14. area of living rooms 15. number of other rooms 16. area of other rooms 17. no. of rooms without windows. 18. area of covered verandah. 19. area of uncovered verandah. 20. kitchen 21. material of wall 22. material of roof 23. material of floor 24. ventilation 25. source of drinking water 26. facilities of drinking water 27. distance to the source of the drinking water 28. distance to the bathing place 29. type of latrine 30. latrine facility 31. distance of latrine used 32. no. of persons using the latrine 33. type of lighting 34. no. of electric points with the household 35. no. of kerosene lamps with the household 36. no. of electric fans, if 	Report not available	All items except 1,9, 10,11,17,18, 20,24,25,27, 28,31,32,34, 35 & 36 tabulation is in progress.

LIST OF SOCIO-ECONOMIC STUDIES*

	Desk	Desk & Field	Field
I. Housing Needs & Demands	(i) A detailed analysis of the housing needs at the all-India, State, Regional and District levels.	(i) To analyse the current rate of housing and building construction by type of houses.	(i) To study the rate of household formation and obsolescence of buildings.
	(ii) To lay down the minimum acceptable standard of housing for different areas and income levels.	(ii) To estimate demand for housing in view of paying capacity.	
II. Housing Finance	(i) To study the credit market and dynamics of money market structure with the development of institutional finances in housing.	(i) To study the consequences of taking certain fiscal and monetary measures to provide the necessary incentive to the private sector.	
	(ii) The possibility of levying of cess on the wages of workers for raising resources for housing.	(ii) Introduction of mortgage loan insurance and the development of secondary mortgage market to mobilise resources and minimise illiquidity of housing investment.	
	(iii) Utilisation of employees' provident fund within the existing legal and administrative framework.	(iii) Working of the existing institutional system for housing finance its shortcomings and areas for improvement.	
	(iv) Land as a resource for mobilizing financial resources.	(iv) Impact of differential rate of interest on housing market.	
		(v) Marginal and average saving propensities in relation to the propensity to own housing.	

* The proposed steering group can decide the priorities.

	Desk	Desk & Field	Field
II. Building Materials	<ul style="list-style-type: none"> (i) Materials budgetting studies for key building materials as well as for local building materials and their utilisation. (ii) The possibility of introducing new and substitute materials and their impact in the context of projected building and construction activities. 		
IV. Employment	<ul style="list-style-type: none"> (i) To analyse the employment potential of alternative building technique in rural and urban areas. (ii) Induced employment in building materials production and servicing industries as a result of a given investment in building construction. (iii) Inter-relationship of employment and rise in construction cost and changes in construction technologies. 		<ul style="list-style-type: none"> (i) Employment relationship in the building industry including working and living conditions, training systems wage differentials and ways and means to increase productivity through incentive schemes.
V. Land Problems	<ul style="list-style-type: none"> (i) A study to evolve optimum plot sizes. (ii) The control and plan development of urban land preventive measures, direct government intervention, nationalisation etc. 		<ul style="list-style-type: none"> (i) Horizontal development versus vertical development.

Desk

Desk & Field

Field

VI. Low Cost Housing

- (i) Evaluation of 'sites and services' scheme.
- (ii) Study into the system of channelising funds and materials to low income groups.
- (iii) Analysis of space standards specifications and standards for environment and community development including infra-structural facilities provided in relation to their adequacy.
- (iv) Urban Land Ceiling and its impact on the creation of housing stock for the economically weaker sections, building activity in general and savings in building materials.

VII. Rural Housing

- (i) Studies into the effect of development in rural areas on migration to urban areas.
- (ii) Evaluation of projects where self-help has been tried and suggest suitable method of rendering technical assistance and erecting other necessary amenities.

VIII. Evaluation of Public Housing

- (i) To study and recommend a suitable mix of houses for different income groups keeping in view the resources.

	Desk	Desk & Field	Field
IX. Social aspects			<ul style="list-style-type: none"> (i) Studies on child development in multi-storeyed buildings. (ii) Effect of good housing on improvement in health, decrease in delinquency and other social ills.
X. Administrative institutional and planning framework.	<ul style="list-style-type: none"> (i) A study of existing administrative and institutional support available for investment in housing and its shortcomings. (ii) Study into the legal framework for housing and development of model housing legislations. 		