

APPENDIX-1

SAMPLE DESIGN
FOR

NSS 53rd Round (January - December 1997)

C.1. Sample Design

C.1.1 Sampling frame : For rural areas, 1990 EC frame is used for selection of villages (Panchayat wards for Kerala & 1981 population census frame for selection of villages for J & K). Latest available lists of UFS blocks are used as sampling frame for selection of sample blocks for all cities and towns.

C.1.2 Stratification

C 1.2.1 Rural: To net adequate number of NDTE's in the sample, each district (NSS region x district for Gujarat) is divided into two area types namely (i) area type 1 consisting of the villages having at least one NDTE and (ii) area type 2 consisting of the remaining villages of the district.

C.1.2.2 Urban: In urban areas, trading enterprises are mostly concentrated in the bazaar area. Thus to net adequate number of trading enterprises in the sample, each town class within a district* is divided into two area types namely (i) Area type 1 consisting of the UFS blocks identified as 'bazaar area' and (ii) area type 2 consisting of the remaining UFS blocks of the town class.

C.1.2.2.1 Composition of town classes in a district falling in an NSS region : There will be a maximum of 5 town classes as described below :

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town class          composition of town class  
code  
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1          all towns with population less than 1 lakh  
  
2          all towns with population 1 lakh or more but less  
           than 5 lakhs  
  
3          all towns with population 5 lakhs or more but  
less      than 10 lakhs  
  
4/5       each city with population 10 lakhs or more  
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* In case of Gujarat , a district may fall in two regions

C.1.2.3 All-India sample size and its allocation over the states/U.Ts :

(i) The total all-India sample size (rural & urban combined) will be a maximum of 15,600 FSUs for the central sample. Total sample size is allocated to different states/U.Ts in proportion to number of workers engaged in OATEs/NDTEs (to be estimated as number of OATEs/NDTEs according to EC '90 multiplied by estimates of number of workers per enterprise based on NSS 46th round) subject to a minimum allocation depending upon the total number of districts and town classes for the state/U.T.

(ii) The state/U.T. level total sample size is allocated between rural and urban sectors in proportion to number of workers. The state/U.T. level rural allocation is further allocated among the districts (NSS region x districts for Gujarat) and the urban allocation among the town classes of each district in proportion to number of workers. While allocating as above, it is maintained that NSS region level allocations (separately for rural & urban) are multiples of 8 and the district level allocations for rural/town class level allocations for urban are at least 4 but in multiples of 2. This is done in order to allocate at least two sample FSUs in each of the two area types. Lastly the district level (rural) allocation is further allocated to the two area types 1 & 2 in proportion to number of OATEs & NDTEs such that allocation for each area type is in multiples of 2 and the town class level (urban) allocation is also allocated between the two area types 1 & 2 in such a way that UFS blocks of area type 1 get completely surveyed (considering state & central samples combined) subject to a maximum of 50% of allocation at town class level and the residual allocation to area type 2. As in rural, area type wise allocation for the urban areas will also be in even numbers.

C.1.2.4 Selection of FSU's : Sample FSUs from each area type are selected circular systematically in the form of two independent sub-samples with probabilities as follows :

| sector | area type | selection probability of the FSU |
|-----------------------|-----------|--|
| * rural (district) | 1 | in proportion to number of (OATEs + NDTEs) |
| | 2 | in proportion to number of OATEs (after assigning '1' to those FSUs having no trading enterprises) |
| ** urban | 1/2 | equal probability |

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* For J & K (rural), the villages are selected circular systematically with probability proportional to population as per 1981 population census.

** Before drawing sample blocks from each town class in a district, the towns within the town class are arranged by their increasing order of population.

C.1.2.5 Listing of households & non-agricultural enterprises in the sample villages/blocks : There will be no hamlet-group/sub-block formation in the sample FSUs whatever may be their sizes in terms of population or number of non-agricultural enterprises. In other words, all the houses, households and non-agricultural enterprises present in the sample FSU will be listed. This is a major departure from the previous NSS rounds.

C.1.2.6 Selection of trading enterprises : After listing all the non-agricultural enterprises, only OATEs & NDTEs excluding those in the public sector are considered for selection for detailed survey. However if some of such enterprises operated for less than 30 days (15 days for seasonal enterprises) during the last 365 days preceding the date of survey, they are also excluded. (For details of coverage of trading enterprises, see para 1.0.9.10). The eligible trading enterprises are classified into three classes termed as enterprise class by total number of workers (including hired) employed in the enterprises on a regular basis as follows :

| Enterprise class code | Composition of the class |
|-----------------------|--------------------------|
|-----------------------|--------------------------|

- 1 all OATEs & NDTEs with one worker only
- 2 all OATEs & NDTEs with two workers only
- 3 all OATEs & NDTEs with 3 or more workers

After grouping the trading enterprises into the enterprise classes, the enterprises in each class are to be arranged in ascending order of their NIC codes (the trading enterprises are given 3 digit NIC codes). The required number of enterprises (see sub-para 1.3.7 (q) (iii) in this context) are to be selected circular systematically with equal probability independently from the arranged frame of each of the enterprise classes. A sample of 4 enterprises from enterprise class 1, 6 from class 2 and also 6 from class 3 is, in general, to be selected. However, if required number of enterprises to be selected from a enterprise class is not available, the short fall will be made up from the other enterprise classes in the priority order of the enterprise class codes 3/2/1.

C.1.2.7 Selection of households : After arranging all the households by m.l. codes (means of livelihood codes details for which are given in chapter one), a sample of 4 households will be selected for detailed survey. It may be noted that sch 1.0, type 1 will be canvassed in the households selected from the FSUs with odd sample village/block numbers and sch 1.0, type 2 in the FSUs with even sample village/block numbers. Sample village/block numbers of the FSUs are indicated in col.(8) (for rural samples)/ col.(9)(for urban samples) of the sample list.

C.1.2.8 Distribution of sample villages/blocks for each state/u.t by rural & urban separately for central samples & state samples are given below:

| state/ut | no. of sample fsu's | | |
|---------------------------|---------------------|--------------|-------------|
| | central rural | sample urban | state rural |
| (1) | (2) | (3) | (4) |
| 1. Andhra Pradesh (02) | 592 | 536 | 592 |
| 2. Arunachal Pradesh (03) | 48 | 32 | 48 |
| 3. Assam (04) | 224 | 160 | 224 |
| 4. Bihar (05) | 536 | 456 | 536 |
| 5. Goa (06) | 16 | 16 | 24 |
| 6. Gujarat (07) | 288 | 504 | 576 |
| 7. Haryana (08) | 112 | 200 | 224 |
| 8. H.P (09) | 72 | 48 | 72 |
| 9. J&K (10) | 48 | 64 | 96 |
| 10. Karnataka (11) | 424 | 496 | 424 |
| 11. Kerala (12) | 504 | 296 | 504 |
| 12. M.P (13) | 464 | 520 | 464 |
| 13. Maharashtra (14) | 520 | 1024 | 520 |
| 14. Manipur (15) | 40 | 32 | 80 |
| 15. Meghalaya (16) | 32 | 32 | 32 |

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|-----------------------|------|------|------|
| 16. Mizoram (17) | 16 | 24 | 16 |
| 24 | | | |
| 17. Nagaland (18) | 32 | 40 | 32 |
| 120 | | | |
| 18. Orissa (19) | 392 | 256 | 392 |
| 256 | | | |
| 19. Punjab (20) | 144 | 312 | 144 |
| 312 | | | |
| 20. Rajasthan (21) | 296 | 384 | 296 |
| 384 | | | |
| 21. Sikkim (22) | 16 | 24 | 16 |
| 24 | | | |
| 22. Tamilnadu (23) | 488 | 624 | 488 |
| 624 | | | |
| 23. Tripura (24) | 32 | 24 | 32 |
| 24 | | | |
| 24. U.P (25) | 744 | 1120 | 744 |
| 1120 | | | |
| 25. West Bengal (26) | 1024 | 768 | 1024 |
| 768 | | | |
| 26. A & N Is (27) | 16 | 8 | - |
| 27. Chandigarh (28) | 8 | 24 | - |
| 48 | | | |
| 28. D & N Haveli (29) | 8 | 8 | - |
| - | | | |
| 29. Daman & Diu (30) | 8 | 16 | 8 |
| 16 | | | |
| 30. Delhi (31) | 16 | 336 | 48 |
| 1008 | | | |
| 31. Lakshadweep (32) | 8 | 8 | - |
| - | | | |
| 32. Pondicherry (33) | 8 | 32 | 8 |
| 32 | | | |
| ----- | | | |
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| 33. All-India | 7176 | 8424 | 7664 |
| 10496 | | | |
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