

# Manual for Mapping and Listing

**EMBED Project**  
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## I. INTRODUCTION

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Mapping and listing is a multipurpose exercise at the inception phase of EMBED project. Main purpose of  
Manual for Mapping and listing for EMBED project

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this exercise is to collect information and listing of all resources and stakeholders for project.

The mapping and listing exercise consists of visiting in village, drawing a sketch map of structures in the village as well as drawing location map of clusters of families for village chaupals. This exercise includes recording a description of every structure together with the names of the heads of the households, Rural Health Care Providers, Kirana, drug stores and Paan/bidi shops, ojhas/local healers, mapping of water stagnation points, clustering of families for village chaupals. This exercise will help BCC facilitator in identifying community volunteer and community leaders and stakeholders.

To ensure the quality of the mapping and listing exercise, this manual will briefly discuss the responsibility of the team members involved in mapping and listing exercise, the definition of terms, drawing sketch map of the villages, clustering of village, listing of households, listing of health care providers, listing of outlets, identification and listing of community volunteers and quality control of whole exercise.

## **II. RESPONSIBILITIES OF TEAMS INVOLVED IN MAPPING AND LISTING EXERCISE**

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BCC facilitators and Tehsil Coordinators will work in teams consisting of two in each. Project Coordinator will monitor the entire exercise.

The responsibilities of the *Project Coordinator* are to:

1. Obtain zone maps for all the villages included in the project area
2. Arrange for the reproduction of all materials (listing manuals, village profile forms)
3. Assign teams to zones
4. Arrange for transportation of the teams to the field
5. Monitor the reception of the completed sketch maps and listing forms at district level
6. Verify that the quality of work is acceptable.

The responsibilities of the mapping and listing team (BCC facilitator and Tehsil coordinators) are to:

1. Contact key persons including Sarpanch, ASHA, AWWs in each village to inform them about the mapping and listing operation and to obtain their cooperation.
2. Identify the boundaries of the village
3. Draw a detailed sketch map showing the structures in the village.
4. Draw location map of clusters and list all the clusters in the village
5. List all the households in the village in a systematic manner
6. List all the health care providers in the village
7. List all the outlets in the village
8. Identify and list community volunteers for program support in the village
9. Communicate to the district coordinator problems encountered in the field and follow his/her instructions.

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The staffs in each team should work at the same time in the same area. They identify the village boundaries together, and then one enumerator prepares the location and sketch map, while the other does the family, health care provider, outlet and community volunteer listing.

The materials needed for the household listing operation are:

- This manual
- A zone map of the villages
- Templet for village profile which includes
  - Village mapping information form (Form I)
  - Household Listing Form (Form II)
  - Cluster listing Form (Form III)
  - Health care provider listing form (Form IV)
  - Outlet listing form (Form V)
  - Community Volunteer Listing form (Form VI)

### III. DEFINITION OF TERMS

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**A Zone** is the cluster of 10-12 villages allocated to each BCC facilitator.

**A zone map** is a reference map that contains all villages in zone.

**A sketch map of village** is a map of village, showing the boundaries of the village and the principal physical features, location of structure and landmarks such as mountains, rivers, roads, and electric poles.

**A cluster** is a group of households consists 25-35 households resides in nearby locality in village. A cluster may be a village or a part of the village.

**A structure** is a free-standing building that can have one or more rooms for residential or commercial use. Residential structures can have one or more dwelling units (e.g., a single house or an apartment building).

**A household** consists of a person or group of persons who normally live together and take their meals from a common kitchen unless the exigencies of work prevents any of them from doing so. The persons in a household may be related or unrelated or a mix of both. However, if a group of unrelated persons live in a Census house but do not take their meals from the common kitchen, they are not considered a part of a common household. Each such person is treated as a separate household.

Collective living arrangements such as army camps, boarding schools, or prisons will not be considered as households. Examples of households are:

- A man or woman with his/her spouse/s with or without children
- A man or women with his/her spouse/s, his children, and his parents
- A man or women with his/her spouse/s and his/her married children living together for some social or economical reasons (the group recognizes one person as the household head)
- An unmarried man or woman with his/her parents/other family members/relatives who provides their living essentials and foods
- A widowed or divorced man or woman with or without children.

**A head of household** is the person who is acknowledged as such by members of the household and who is usually responsible for the upkeep and maintenance of the household.

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### IV. LOCATING THE VILLAGE

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The Project Coordinator will provide the listing team with a base map containing the villages assigned

to the team. Upon arrival in a village, the team should contact the local authorities (i.e. Sarpanch, ASHA, AWW etc.) living in the vicinity and request assistance to identify the boundaries of the village. In most cases, the boundaries follow easily recognizable natural features such as streams or rivers, and construction features such as roads or train track. In some cases, the boundaries may not be marked with visible features (especially in remote rural areas). In these cases, attention should be paid to carefully locating the village.

Before doing the mapping and listing, the team should tour the village to understand locality for listing all the structures. Divide the village into parts if possible. A part can be a majra/tola of structures. It is useful to make a rough sketch map of the village indicating the boundaries of the parts, as well as the relative location of landmarks, public buildings (e.g., schools, temples, panchayat bhavan, Anganwadi centre and markets), and main roads. This rough sketch will serve as a guide for the team when it begins the main work.

## V. PREPARING LOCATION AND SKETCH MAPS

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The Project Coordinator will designate one enumerator of the team as the *mapper*. The second enumerator will be the *lister*. Although the two have separate tasks to perform, they must move together and work in team; the mapper prepares the maps, and the lister collects information on the structures (and corresponding households) indicated on the sketch map.

The mapping of the village and the listing of the households should be done in a systematic manner so that there are no omissions or duplications. If the village consists of a number of majra/tola, then the team should finish each majra/tola before going to the adjacent village. Within each majra/tola or village, start at one corner of the majra/tola or village and move *clockwise* around the majra/tola or village. In villages where the structures are frequently found in small groups, the team should work in one group of structures at a time, and in each group they can start at the center (choosing any landmark, such as a school, to be the center) and move around it clockwise.

On the MIS village mapping information Form (Form MIS/1, see Appendix 2), the mapper will prepare a location map of the village by first filling in the identification box for the village. All information needed for filling in the identification box is provided by the district coordinator. In the space provided, draw a map showing the location of the village and include instructions on how to get to the village. Include all useful information to find the village and its boundaries directly on the map and in the space reserved for observations if necessary. Draw a sketch map of all structures found in the village. It is important that the mapper and lister work together and coordinate their activities, because the structure numbers that the mapper indicates on the sketch map must correspond to the serial numbers assigned by the lister to the same structures.

On the sketch map, mark the starting point with a large X. Place a small square at the spot where each structure in the village is located. For any nonresidential structure, identify its use (e.g., a store, cattle house etc). Number all structures in sequential order beginning with "1." Whenever there is a break in the numbering of structures (e.g., when moving from one block to another), use an arrow to indicate how the numbers proceed from one set of structures to another. Remember that this is the serial number of the structure as assigned on the household listing form, which is the same as the number indicated on the sketch map.

Although it may be difficult to pinpoint the exact location of the structure on the map, even an approximate location is useful for finding the structure in the future. Add to the sketch map all landmarks (e.g., chaupals, park), public buildings (e.g., school, temple, panchayat bhawan, anganwadi center), and streets or roads. Sometimes it is useful to add to the sketch map landmarks that are found outside the village boundaries if they are helpful in identifying other structures inside the village.

## VI. LISTING THE HOUSEHOLDS

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The BCC facilitator will use the MIS Survey Household Listing Form (Form MIS/II, see Appendix 3) to record all households found in the village. Begin by entering the identification codes of the village.

Complete the rest of the form as follows:

Column (1) [*Serial Number of Structure*]: For each structure, record the same serial number that the BCC facilitator enters on the sketch map.

Column (2) [*Address/Description of Structure*]: Record the street address of the structure. Where structures do not have visible street addresses, give a description of the structure and any details that help in locating it (e.g., in front of the school or next to the store).

Column (3) [*Residence Y/N*]: Indicate whether the structure is used for residential purposes (eating and sleeping) by writing Y for “Yes.” In cases where a structure is used for commercial or other purposes, write N for “No.” Structures used both for residential and commercial purposes (e.g., a combination of a store and a home) should be classified as residential (i.e., mark Y in Column 3). Make sure to list any household unit found in a nonresidential structure (e.g., a guard living inside a factory or in a church).

Do not forget to list vacant structures and structures under construction, as well as structures where the household members refuse to cooperate, or are not at home at the time of the listing. In such cases, leave Columns (4) and (5) blank, and in Column (6) [Observations], give some explanation (e.g., under construction, refusal, or not at home).

Column (4) [*Serial Number of Household in Structure*]: This is the serial number assigned to each household found in the structure; there can be more than one household in a structure. The first household in the structure will always have number “1.” If there is a second household in the structure, then this household should be recorded on the next line (a “2” is recorded in Column (4), and Columns (1) to (3) are left blank).

Column (5) [*Name of Head of Household*]: Write the name of the head of the household. There can only be one head per household. If no one is home, ask neighbors for the name of the head of the household. If a name cannot be determined, leave this column blank. Note that it is not the name of the landlord or owner of the structure that is needed, but the name of the head of the household that lives there.

Column (6) [Observations]: This space is provided for any special remarks that might help the project team locate the structure or identify the household during the project implementation.

If the structure is an apartment building, assign one serial number to the entire structure (only one square with one number appears on the sketch map), but complete Columns (2) through (6) for each apartment in the building individually. Each apartment should have its own address, which is the apartment number.

The listing team should be careful to locate hidden structures. In some areas, structures have been built so haphazardly that they can easily be missed. If there is a pathway leading from the listed structure, check to see if the pathway goes to another structure. People living in the area may help in identifying the hidden structures.

## VII. CLUSTERING OF VILLAGES

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After completing the mapping and listing exercise, BCC facilitator will subdivide the village into clusters of 25-35 households, and all clusters will be marked separately. BCC facilitator should first tour the village and make a quick count to get the estimated number of households residing in the village. The decision of clustering and number of clusters to be created will be made by the BCC facilitator.

The ideal would be to have clusters of approximately equal size, but it is also important to adopt cluster boundaries that are easily identifiable. Begin by drawing a sketch map of the entire village. Using identifiable boundaries, such as roads, streams, and electric power lines, divide the village into the designated number of roughly equal-sized clusters. On the map of the village, show clearly the boundaries of the clusters created. Number the clusters sequentially. Estimate the size of each cluster in the following manner: quickly count the number of households in each cluster, add them up, and calculate the proportion of households in each cluster.

*Example:* A village of 152 households has been divided into 5 clusters and the results are as follows:

Cluster number	Number of households	Percentage	Percentage
1	27	18%	18%
2	30	20%	38%
3	28	18%	56%
4	32	21%	77%
5	35	23%	100%




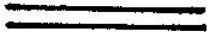




















On Form MIS/III (the MIS clustering Form, see Appendix 4), write the size of the clusters in the appropriate columns (number and percentage) and calculate the cumulative percentage. The last cumulative percentage must be equal to 100 percent. Draw a boundary of each cluster on sketch map and mention cluster number in that.

## VII. QUALITY CONTROL

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To ensure that the work done by each mapping and listing team is acceptable, a quality check will be performed. The District coordinator will do an independent listing of 10 percent of each cluster. If errors are found in 2 percent or more of the relisted sample, the whole cluster will be relisted. If less than 2 percent of the original sample listing is wrong, corrections will be made on the household listing form, and no relisting is necessary.

## ANNEXURE 1. EXAMPLES OF SYMBOLS FOR MAPPING

Orientation to the East	
Boundaries of the village	
Boundaries of the cluster	
Pakka (Paved) road	
Kachcha (Unpaved) road	
River, water spring etc.	
Bridge	
Water stagnation points (Lake, pond, etc.)	
Mountains, hills	
Drinking water source (wells, hand pump, community tap etc.)	
Market	
School	
Panchayat Bhawan, Anganwadi Centre, community center	
Church, temple	
Mosque	
Cemetery	
Residential structure	
Nonresidential structure	
Vacant structure	
Hospital, clinic, etc.	
Electric pole	
Tree, bush	
Rural Health Care Provider (RHCP)	
Ojha/local healer	

Kirana shop

Paan/bidi shop

Drug store

Community volunteer

K

P

M

V



**ANNEXURE 2. SLUM MAPPING INFORMATION FORMS**

Form MIS/I

मच्छर जनित रोगों के उन्मूलन हेतु परियोजना के लिये स्लम का विवरण

स्लम/गाँव का नाम –		वॉर्ड/नेट्स –लेटीट्यूड : लॉगीट्यूड		स्लम/गाँव का कोड –	
वार्ड सं या पंचायत नाम –	जोन –	म्युनिसिपल या ब्लॉक –	जिला –		
कुल परिवार –	क्लस्टर –	कुल जनसंख्या –			
बी.सी.सी.एफ. का नाम –			सामुदायिक सहयोगी –		
गाँव का सामाजिक मानचित्र			घरों की सूची		
सामाजिक मानचित्र बनाने का दिनांक				सामाजिक मानचित्र बनाने में सहयोगी	
सेवा प्रदाता का नाम			सेवायें		
अर्बन/ आशा का नाम		आरोग्य केन्द्र	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
आंगनबाड़ी कार्यकर्ता का नाम		अर्बन स्वास्थ्य एवं पोषण दिवस	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
आंगनबाड़ी सहायिका का नाम		उप स्वास्थ्य केन्द्र	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
पार्षद का नाम		स्वास्थ्य सेवा प्रदाता	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
वार्ड मेंबर का नाम		ओझा / गुनिया / पण्डा	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
ए. एन. एम. का नाम		प्राथमिक विद्यालय	<input type="checkbox"/> हाँ		
			<input type="checkbox"/> नहीं		
स्वास्थ्य सेवा प्रदाताओं की संख्या की संख्या					
ओझा / गुनिया / पण्डा की संख्या					
दुकानों की / आउटलेट की संख्या			पानी जमा होने वाले स्थानों की संख्या		
स्लम के नजदीक स्वास्थ्य सेवा इकाइयाँ एवं दूरी					
उप स्वास्थ्य केन्द्र का नाम एवं दूरी	प्राथमिक / सामुदायिक स्वास्थ्य केन्द्र का नाम एवं दूरी	जिला स्तरीय चिकित्सालय का नाम एवं दूरी	निजी चिकित्सालय का नाम एवं दूरी		























