

Practical Work in Geography Class 12 Solutions

Chapter 5 Field Surveys

Class 12 Practical Work in Geography Chapter 5 NCERT Textbook Questions Solved

1. Choose the right answer from the four alternatives given below:

Question 1(i).

Which one of the following helps most in planning for a field survey?

- (a) Personal interviews
- (b) Secondary information
- (c) Measurements
- (d) Experimentation

Answer:

- (a) Personal interviews

Question 1(ii).

Which one of the following is taken up at the conclusion of a field survey?

- (a) Data entry and tabulation
- (b) Report writing
- (c) Computation of indices
- (d) None of the above.

Answer:

- (c) Computation of indices

Question 1(iii).

What is most important at the initial stages of field survey?

- (a) Outlining the objectives
- (b) Collection of secondary information
- (c) Defining the spatial and thematic coverages
- (d) Sample design

Answer:

- (c) Defining the spatial and thematic coverages

Question 1(iv).

What level of information is acquired during a field survey?

- (a) Macro level information
- (b) Maso level information
- (c) Micro level information
- (d) All of the above levels of information

Answer:

- (a) Macro level information

2. Answer the following questions in about 30 words:

Question 2(i).

Why is a field survey required?

Answer:

Like many other sciences, geography is also a field science. Thus, a geographical enquiry always needs to be supplemented through well planned field surveys. It serves the following objectives:

- (a) These surveys enhance our understanding about patterns of spatial distributions, their associations and relationships at the local level.
- (b) The field surveys facilitate the collection of local level information that is not available through secondary sources.
- (c) The field surveys are carried out to gather required information so as the problem under investigation is studied in depth as per the predefined objectives.

Question 2(ii).

List the tools and techniques used during a field survey.

Answer:

Field survey is basically conducted to collect information about the chosen problem for which varied types of tools are required. These include secondary information including maps and other data, field observation, data generated by interviewing people through questionnaires.

- Recorded and Published Data
- Field Observation
- Measurement
- Interviewing

Question 2(iii).

What type of coverages need to be defined before undertaking a field survey?

Answer:

During field studies, investigator has to decide whether the survey will be conducted in the form of census for the entire population or will be based on selected sample. If the study area is not very large but composed of diverse elements then entire population should be surveyed. In case of a large size area, one can limit the study to selected samples representing all segments of the population.

Question 2(iv).

Describe survey design in brief.

Answer:

From functional point of view, field surveys are designed in the following steps:

1. **Defining the Problem:** The problem to be studied should be defined precisely. It can be achieved by way of statements indicating the nature of the problem. It should also be clear through the title and sub-title of the topic of the survey.

2. Objectives: A further specification of the survey is done by listing the objectives. Objectives provide outline of the survey and in accordance to these, suitable tools of acquisition of data and methods of analysis will be chosen.

3. Scope: Scope of survey needs to be delimited in terms of geographical area to be covered, time framework of enquiry and if required themes of studies to be covered. This multi-dimensional delimitation of the study is essential in relation to fulfilment of the predefined objectives and limitations of analysis, inferences and their applicability.

4. Tools and Techniques: Field survey is basically conducted to collect information about the chosen problem for which varied types of tools are required. These include secondary information including maps and other data, field observation, data generated by interviewing people through questionnaires.

5. Compilation and Computation: Surveyor needs to organise the information of varied types collected during the fieldwork for their meaningful interpretation and analysis to achieve the set objectives. Notes, field sketches, photographs, case studies, etc. are first organised according to sub-themes of the study. Similarly, questionnaire and schedule based information should be tabulated either on a master sheet or on the spreadsheet.

6. Cartographic Applications: Different methods of mapping and drawing of diagrams and graphs and also use of computer in drawing them neatly and accurately. For getting visual impressions of variations in the phenomena, diagrams and graphs are very effective tools. Therefore, the description and analysis should be duly supported by these presentations.

7. Conclusion: At the end a report is prepared. On the basis of the report, we can provide the summary of the investigation.

Question 2(v).

Why is the well-structured questionnaire important for a field survey?

Answer:

Questionnaire plays an important role in a field survey. If it is properly designed, certainly we shall get accurate results from our investigations. On the other hand, if it is not properly designed then it will lead to many problems. Rather the entire purpose of field survey will be defeated. Questionnaire is the most commonly used method in survey. Questionnaire is a list of questions either open-ended or close-ended for which the respondent gives answers. Questionnaire can be conducted via telephone, mail, live in a public area, or in an institute, through electronic mail or through fax and other methods. There are some points which must be borne in mind while constructing a questionnaire. To draft a questionnaire or schedule is an art. The success of statistical investigation depends on proper drafting of the questionnaire. It is a highly specialised job and following points should be borne in mind:

- The number of questions in a schedule should be brief and limited as possible. Only relevant questions to the problem under investigation should be added. Ideally it should be between 20-30.

- The questions should be simple, clear and precise. Its language should be very simple so that informants may easily understand.
- All unambiguous questions should be avoided at all, complicated and long- worded questions irritate the respondents which results in careless; replies.
- No personal questions should be asked from respondents. Such questions should be avoided.
- For example
 - Do you take alcohol?
 - Do you tell a lie?
 - Does your boss scold you? ‘
- Questions should be framed with right words. This ensures the validity. Starting a question with negative is undesirable. For example, Don't you think India is a corrupt country?
- Questions should not be based on calculations. Only those questions should be asked which the respondents may reply immediately. Moreover, questions should avoid memories.
- The objective type questions should be given preference. Either MCQ or yes-no options should be given but in case of need and requirement of investigation, open ended questions can also be used.
- The arrangement of the questions should be such it involves a logical flow of questions. For example, it is not making sense to ask a person:
 - What is your income?
 - Are you employed?
 - Or
 - How many kids do you have?
 - Are you married?

3. Design a field survey on any one of the following problems:

- Environmental Pollution
- Soil Degradation
- Floods
- Energy Issues
- Land Use Change Detection

Answer:

Students will choose the topic themselves and conduct a survey.

Class 12 Practical Work in Geography Chapter 5 NCERT Extra Questions

Class 12 Practical Work in Geography Chapter 5 Very Short Answer Type Questions

Question 1.

How are information gathered in field surveys?

Answer:

Sources of collecting information can be primary or secondary. Primary sources include field surveys, interviews, direct oral investigation, etc. Secondary sources can be

published or unpublished. For example, different government, semi government, non-government, national and international agencies and other than this newspapers, magazines, private publications and electronic media are other sources.

Question 2.

Do field surveys provide completeness to geographical investigation?

Answer:

Actually Geography is a field descriptive science. To make its subject matter reliable and full proof we need to conduct field surveys. These are helpful in providing completeness to geographical investigation.

Question 3.

Which features can be exhibited in maps in field surveys?

Answer: Maps topographic details including relief, drainage, water bodies, settlements, means of communications and other topographical features of a village and its surrounding region can be shown through maps. These maps provide spatial dimension of inequality in land distribution if plotted by ownership of households.

Question 4.

What is the role of the investigator in field survey?

Answer:

Investigator plays an important role in any field survey. He has to define the problem, determine the objectives of field survey, scope of field survey and decide the tools and techniques to be used for survey. The investigator has to comprehend the situation and processes in totality and at the place of their occurrence. He is the one who finally prepares a report and derives final conclusions.

Question 5.

Why is it necessary to organise collected data?

Answer:

It is necessary to organise collected data because:

- Organised data are attractive and impressive.
- These are simple and easily understandable.
- Organisation of data is useful in comparison.
- It saves time, effort and energy by simplifying data.

Class 12 Practical Work in Geography Chapter 5 Short Answer Type Questions

Question 1.

Explain the importance of field survey in scope of the subject matter of geography.

Answer: Geographical issues addressed pertain to global or national or regional or local level. In other words, the given information helps us understand the issues at macro level. The regional level information is used to analyse different physical and human parameters of a large area. Similarly, information has to be gathered at the local level by

conducting primary surveys for generating information. For understanding these issues many primary surveys are conducted. The primary surveys are also called field surveys. They help in understanding all such issues to a great extent.

Question 2.

Why is field survey required?

Answer:

Field surveys are required because it serves the following objectives:

- These surveys enhance our understanding about patterns of spatial distributions, their associations and relationships at the local level.
- The field surveys facilitate the collection of local level information that is not available through secondary sources.
- The field surveys are carried out to gather required information so as the problem under investigation is studied in depth as per the predefined objectives.
- Such studies also enable the investigator to comprehend the situation and processes in totality and at the place of their occurrence. This is possible through 'Observation', which is a useful method of gathering information and then to derive inferences.

Question 3.

How is field survey conducted?

Answer:

Field survey is conducted in the following ways:

- **Problem:** The problem to be studied should be defined precisely.
- **Objectives:** A further specification of the survey is done by listing the objectives.
- **Scope:** Scope of survey needs to be delimited in terms of geographical area to be covered, time framework of enquiry and if required themes of studies to be covered.
- **Tools and Techniques:** Field survey is basically conducted to collect information about the chosen problem for which varied types of tools are required.
- **Compilation and Computation:** Notes, field sketches, photographs, case studies, etc. are first organised according to sub-themes of the study. Similarly, questionnaire and schedule based information should be tabulated either on a master sheet or on the spreadsheet.
- **Conclusion:** At the end a report is prepared. On the basis of the report, we can provide the summary of the investigation.

Question 4.

From where should we obtain recorded and published data?

Answer:

These are collected and published by different government agencies, organisations and other agencies. This information along with cadastral and topographical maps, provides basis to prepare the framework of survey. Different types of data can be obtained from specialised agencies. For example, listing of households, persons, landholdings in the survey area can be done using the official records or electoral rolls available with the

village panchayat or the revenue officials. Essential physical features like relief, drainage, vegetation, land use and cultural features like settlements, transport and communication lines, irrigation infrastructure, etc. can be traced out from the topographical maps.

Question 5.

Why are interviews given importance in surveys related to social issues?

Answer: In all field surveys, dealing with social issues information is gathered through personal interviews. Experiences and knowledge of each individual about his/ her environs as well as about his/her own livings are nothing but information. These experiences, if retrieved efficiently are important sources of information. However, extraction of information through personal interviews is greatly influenced by interviewer's abilities in terms of understanding of the subject and the people to be interviewed, communicative skills and rapport with the people.

Class 12 Practical Work in Geography Chapter 5 Long Answer Type Questions

Question 1.

Present the outline of a field survey related to land use of a surrounding rural area.

Answer:

Agriculture is the main occupation in rural India. Majority of rural people get employment in this occupation. Some people get jobs outside rural areas and get migrated. But their minority is not capable of changing occupational structure of the rural areas. Still the area selected for field survey: Alipur, since last decade 2001, land use pattern is going through many changes. An observation:

1. Introduction: In Alipur, a village in Meerut district is an agrarian village. Some of the population of the village is engaged in agriculture while others are self-employed. All the people engaged in agriculture are not land owners. Rather they are working on others' land as labourers. In this village 400 poor families are living, out of which only 230 families have their own cultivable land. Rest of the families are either agricultural labourers or get employment outside the village. Some of them are also self-employed.

2. Objective of Survey: To find the changes and the causes of changes in the land use pattern in village Alipur.

3. Outline of the Survey:

- Introducing yourself to regional development officer of the district and introduce him objectives of the survey;
- Also a request will be sent for getting special information related to land, land papers, land ownership records, maps and list of families. In this way, the information related to agriculture before survey and other details can be obtained.

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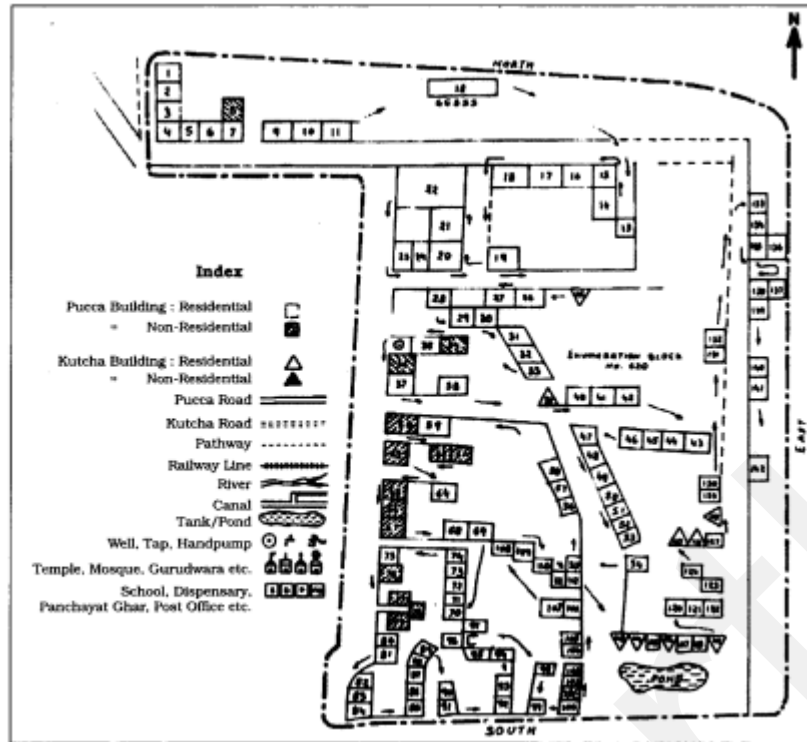


Fig. Notional Map of the Settlement with Grids for Sampling

4. To determine the techniques to be used in field survey:

- To determine if the survey will be based on census or sample.
- To determine the timing of interview and place of interview.
- To prepare a questionnaire for the interview.
- To determine the timing to meet the sarpanch and other senior members of the village.

S. No.	Name of the head of land owner	Land in hectares	Irrigated area in hectares	Rabi crops in hectares	Kharif crops in hectares	Other crops
1.	Surya Kant	0.4	0.3	0.4	0.3	0.1

- Express gratitude to those who have given valuable information to you.
- Tabulating the collected data, analysing them using statistical methods, presenting graphs and showing land use pattern changes using maps and cartograms and finally giving conclusions.

5. Presenting report and deriving conclusions: Data are presented properly to exhibit the true picture of the area using flawless methods of data analysis so as to reach at proper conclusions.

Question 2.

Choose an industrial area and prepare a survey report on pollution related problems in that area.

Answer:

In the modern world where on one side we are touching new heights of development, environmental pollution is becoming a serious problem on the other hand. There are three main components of environment: water, air and earth. These are seriously

struggling with the problems of pollution. The impact of pollution is visible on flora, fauna, human and air. The factors which cause pollution are called pollutants. Pollutants are chemical, solid waste and poisonous gases. Natural and human factors are responsible for this pollution. Volcanic eruptions and landslides are natural causes while industrial and domestic factors are responsible for pollution as human factors. In this we shall select an industrial region and suggest measures for the development of such systems which can help to control and improve the situations.

- **Industrial Area, An Introduction:** Students can choose an industrial area according to his own convenience. Name the area and its location in introduction. If possible, describe the history of its growth.
- **Regional Problem:** Impact on health of pollution, any specific problem due to pollution or its repetition or explanation of any disorder and its impact can be explained under regional problem.
- **Objectives:** The diseases commonly caused due to contaminated water are diarrhea, intestinal worms, hepatitis, etc. What is the number of incidents of such diseases in this area?
- **Planning:** Determining the boundaries of given industrial area and time to be allotted for completion of the survey. For this find the map of the selected industrial region and make a list of working industrial units in the area.
- **Outline of the Survey:**
 - Divide the students in proper groups.
 - Determine the responsibilities of each group.
 - Send one group to government agencies to collect data on health and pollution related diseases.
 - Some of them should be engaged in survey job where students should be sent according to block and sector for doing the practical or face to face investigation. If possible collect information related to solid wastes, water pollutants and air pollutants, etc. which are being disposed off by this area.
 - **Data Processing:** Whatever statistics have been collected through interviews or questionnaire they need to be organised, presented and analysed to reach at conclusions.
 - **Conclusions:** On the basis of statistical facts reach at conclusions and suggest measures for improvement.

Class 12 Practical Work in Geography Chapter 5 Viva Questions

Question 1.

What do you mean by map orientation?

Answer:

It involves setting the map in the right direction.

Question 2.

How are information gathered in field surveys?

Answer:

Information can be gathered through primary or secondary sources. Primary sources include field surveys, interviews, direct oral investigation etc. secondary sources can be

published or unpublished. For example, different government, semi government, non government, national and international agencies and other than this newspapers, magazines, private publications and electronic media are other sources.

Question 3.

Do field surveys provide completeness to geographical investigation?

Answer:

Actually Geography is a field descriptive science. To make its subject matter reliable and full proof we need to conduct field surveys. These are helpful in providing completeness to geographical investigation.

Question 4.

For what purpose can we use topographical maps in field surveys?

Answer:

Essential physical features like relief, drainage, vegetation, land use and cultural features like settlements, transport and communication lines, irrigation infrastructure, etc. can be traced out from the topographical maps.

Question 5.

How many families are normally selected for conducting a household survey?

Answer:

50 to 100 families are normally selected for conducting a household survey.

Field Surveys Notes

- Geographical issues addressed pertain to global or national or regional or local level. In other words, the given information helps us to understand the issues at macro level. The regional level information is used to analyse different physical and human parameters of a large area. Similarly, information has to be gathered at the local level by conducting primary surveys for generating information. The primary surveys are also called field surveys.
- Sources of collecting information can be published or unpublished. For example, different government, semi government, non government, national and international agencies and other than this newspapers, magazines, private publications and electronic media are other sources.
- Geography is also a field science. Thus, a geographical enquiry always needs to be supplemented through well-planned field surveys.
- Field surveys are conducted to gather required information. These surveys enhance our understanding about patterns of spatial distributions, their associations and relationships at the local level.

- The field survey is initiated with well-defined procedure. It is performed in the following stages:
 - The problem to be studied should be defined precisely. This can be achieved by way of statements indicating the nature of the problem. This should also be reflected in the title and sub-title of the topic of the survey.
 - A further specification of the survey is done by listing the objectives. Objectives provide outline of the survey and in accordance to these, suitable tools of acquisition of data and methods of analysis will be chosen.
 - Like clearly defined objectives, scope of survey needs to be delimited in terms of geographical area to be covered, time framework of enquiry and if required themes of studies to be covered.
 - Field survey is basically conducted to collect information about the chosen problem for which varied types of tools are required. These include secondary information including maps and other data, field observation, data generated by interviewing people through questionnaires.
- Recorded and Published Data should be collected from reliable government agencies and organisation on whose reliability there is no suspense. Listing of households, persons, landholdings in the survey area can be done using the official records or electoral rolls available with the village panchayat or the revenue officials.
- Essential physical features like relief, drainage, vegetation, land use and cultural features like settlements, transport and communication lines, irrigation infrastructure, etc. can be traced out from the topographical maps.
- Landscape scenario can also be captured by photography of the landscape, objects and activities. At times, when suitable large-scale map is not available, a sketch or a notional map of the survey area can be prepared based on reconnaissance survey. This kind of exercise also helps in getting or, self introduced with the area as each feature needs to be observed carefully for locating them in the sketch.
- In all field surveys, dealing with social issues information is gathered through personal interviews. Experiences and knowledge of each individual about his/ her environs as well as about his/her own livings are nothing but information.
- The basic objective of regional survey is to understand interrelationship between geography and human activities. Surveyor makes use of photography, maps, graphs, pictograms and maps to exhibit and analyse geographical features and human activities.
- Surveyor can make use of Tohi Survey or google earth website and can understand these phenomena.
- Notes, field sketches, photographs, case studies, etc. are first organised according to sub-themes of the study. Similarly, questionnaire and schedule-based information should be tabulated either on a master sheet or on the spreadsheet.
- For getting visual impressions of variations in the phenomena, diagrams and graphs are very effective tools. Thus, the description and analysis should be duly supported by these presentations.

The field study report in concise form should contain all the details of the procedures followed, methods, tools and techniques employed. The major part of the report will be devoted to the interpretation and analysis of information gathered and computed along

with supportive facts in the form of tables, charts, statistical inferences, maps and references. At the end of the report, you should also provide the summary of the investigation.

There are many regional issues on which field survey can be conducted. Important among these are Ground Water Change, Environmental Pollution, Soil Degradation, Poverty, Droughts and Floods, Energy Issues, Land use survey and Change Detection.

Field Surveys Important Term

- **Field Survey:** It is carried out to gather the required information so as to study the problem under investigation in detail as per the predefined objectives.
- **Tabulation:** The data collected from the primary and secondary sources has to be organised in a systematic manner for easily processing and interpreting.