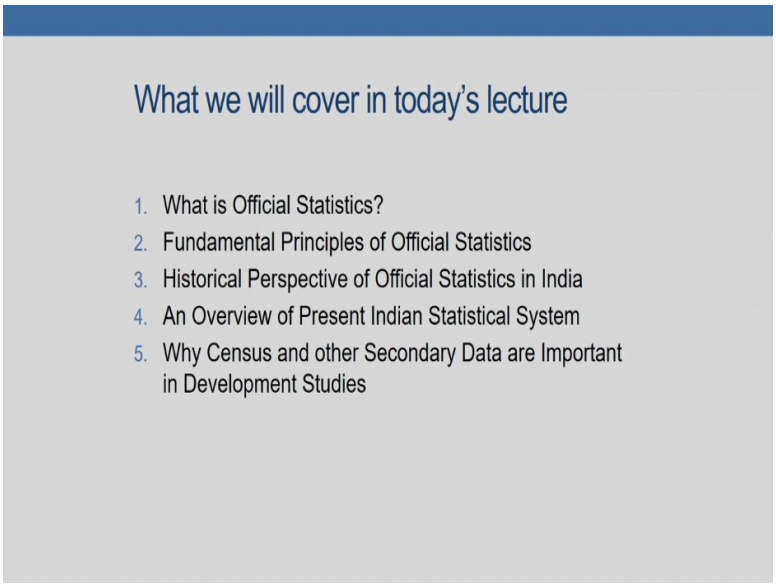
Development Research Methods
Dr. Rajshree Bedamatta
Department of Humanities and Social Sciences
Indian Institute of Technology - Guwahati

Module - 6
Lecture - 18
The Importance of Census and Other Secondary Data in Development Studies

Hello and welcome to the NPTEL MOOC's course on development research methods. In today's lesson, we will learn about the importance of using census and other secondary data sources for development research. When we are researching on development issues, particularly from the developing countries, it is extremely important for researchers to keep in mind, the kind of secondary data that is emanating or emerging from various government sources. Often, it is very costlier to not have official data sources or official data by the government, on which different policies can be formulated and interventions be carried out. Researchers should be slightly suspicious of areas in which secondary data does not exist; or of countries where secondary data is not coming out in regular frequency. Because, that affects the overall planning and design of where we want to go, as far as a particular policy is concerned.

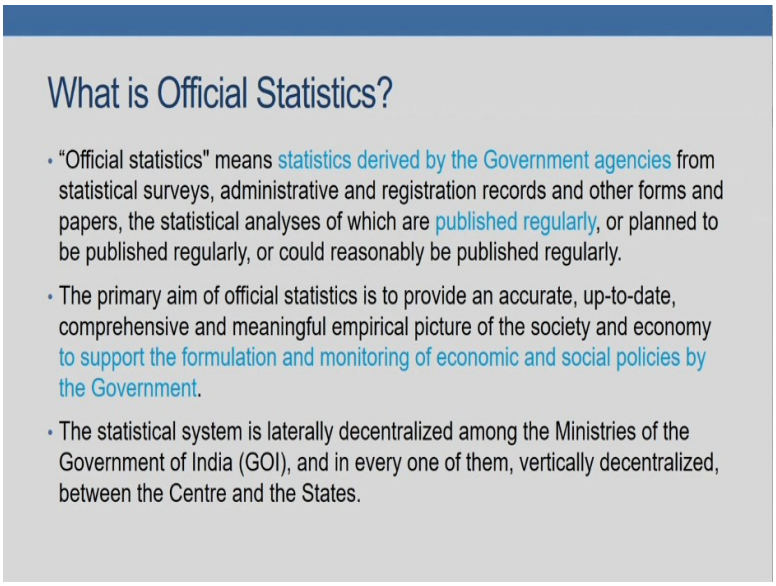
So, in today's lesson, our focus will be on looking at what is the importance of what we call is official statistics, what is official statistics. And the focus will be on Indian official statistics and to understand the statistical architecture of India, particularly with respect to development studies research. So, what we will cover in today's lecture is as follows.

(Refer Slide Time: 02:05)



We will understand what is official statistics; what are the fundamental principles of official statistics. I will also give you a very brief historical perspective of official statistics in India. And then, we will come to an overview of the present Indian Statistical System. And lastly, I will impress upon the students as to the importance of census and other secondary data in development studies research. So, let us begin with this question about official statistics.

(Refer Slide Time: 02:32)



Often, when you are conducting research in development issues, you may have come across questions such as: Have you looked up the official data? What is the official data? For example, anybody who is conducting research in the areas of poverty, let us say for example, you would often face questions as to, what is the official headcount ratio of poverty; what are

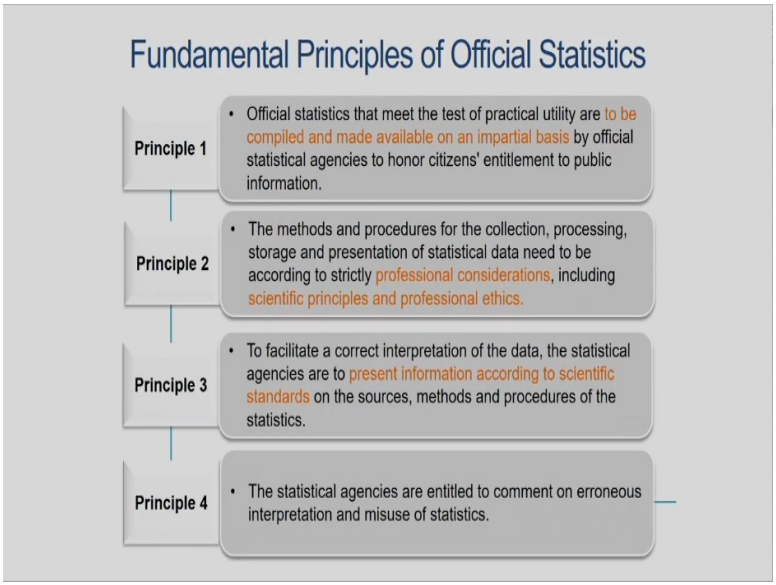
the official poverty estimates; whether it is 30%, 20%, 25%. It is a different question regarding how these estimates are arrived at. But the first question to ask is, where are these coming from, and how reliable these statistics are, and whether or not we should be focusing or relying on these statistics for carrying our development research. So, that is the focus of today's lesson.

So, official statistics basically means, statistics that is derived by the government agencies from statistical surveys, administrative and registration records and other forms and papers. The statistical analysis of which are published regularly or planned to be published regularly or could reasonably be published regularly. And the primary aim of official statistics is to provide an accurate, up to date, comprehensive and meaningful empirical picture of the society and economy to support the formulation and monitoring of economic and social policies by the government.

Now, as official statistics is produced within the government, its credibility and integrity depend upon the professional independence of the various government agencies or the statistical agencies that are bringing out these data and statistics. Now, professional independence is essentially a prerequisite and the means to provide objective statistical information free from any kinds of pressures from within the government. And therefore, that is one of the important things to keep in mind or one of the important things to ensure within a democratic setup, as to how independently the statistical agencies are putting out the estimates. And it is being discussed and analyzed by the public at large. Therefore, official statistics also has a democratic connotation to it, in the sense that, official statistics is largely for public consumption. But of course, the governments also need to comment upon whether these statistics are being properly used and are properly interpreted or not.

Now, the statistical system is laterally decentralized among the ministries of government of India and in every one of them vertically decentralized between the Centre and the states. At the national level, the Ministry of Statistics and Programme Implementation is the nodal ministry, is the nodal organization. And we will look at this bifurcation with regard to the different tires of the statistical agencies that are bringing out this information in some time.

(Refer Slide Time: 05:43)



But before that, let us look at some of the fundamental principles of official statistics. Along with what is official statistics, we also need to know what are the fundamental principles of official statistics. One of the first principles is that, official statistics must meet the test of practical utility and are to be compiled and made available on an impartial basis by official statistical agencies to honor citizens' entitlement to public information. So, every citizen of this country is entitled to public information. And therefore, one of that principles of official statistics is to ensure that these information is coming out in an impartial manner to be used by the public at large. For example, you have the census of India, which gives out various important estimates. For example, with respect to demographic information such as fertility rates, mortality rates, that we can calculate from the census data; sex ratio or literacy rates; various worker and non-worker status estimates that come out from the census are some of the prime examples.

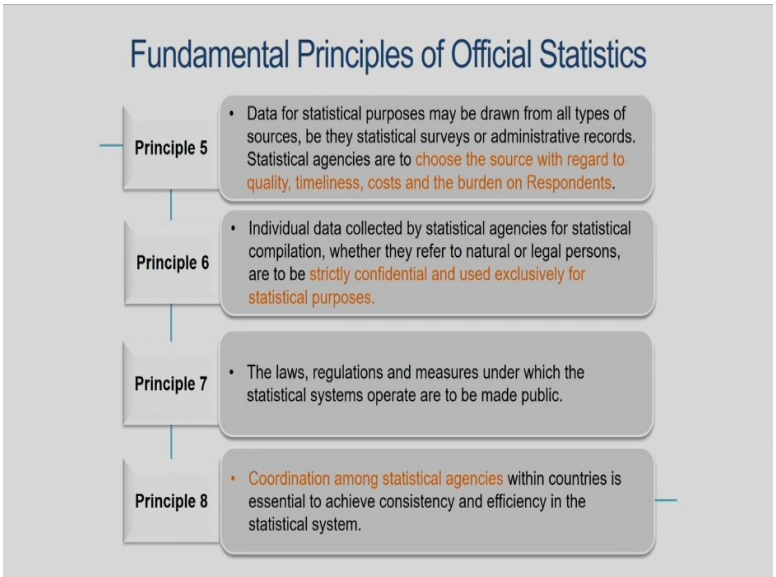
The second principle is that the methods and procedures for collection, processing, storage and presentation of statistical data need to be according to strictly professional considerations, including scientific principles and professional ethics. And this is again very important, because when statistical agencies are bringing out the data, there needs to be proper ethical guidelines with respect to how the data needs to be collected and processed and brought out to the public. And India has a long history of creating such statistical systems. And they have stood the test of time.

A third principle is to facilitate a correct interpretation of the data. The statistical agencies are to present information according to scientific standards, on the sources, methods and

procedures of the statistics. And here, over a period of time, over the period of last 3 or 4 decades, various international organizations have also laid down guidelines and Indian statistical agencies have tried to align themselves to the international guidelines, so that data can emerge, which are comparable across countries and across time.

A fourth principle is that the statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics. This is again a very important factor with regard to using of official statistics. When as researchers we embark upon the journey of analyzing statistical data and from our earlier classes, you would know that the data is not able to tell a story all by itself, but it largely depends upon the paradigms that we are using for our research and the kind of story that we want to provide to our data. And in these circumstances, if we are coming from different paradigms or we have different philosophical assumptions regarding how we want to use the data, it runs the risk of being misutilized or misinterpreted, and therefore, then it becomes the responsibility of the statistical agencies to comment upon how best to use the information.

(Refer Slide Time: 09:16)



The fifth principle is with regard to the quality, timeliness, costs and burdens on respondent. Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. And statistical agencies are to choose the source with regard to quality, timeliness, costs and burden on respondents. For example, when we talk about child nutrition for example, we know that there are various indicators with regard to

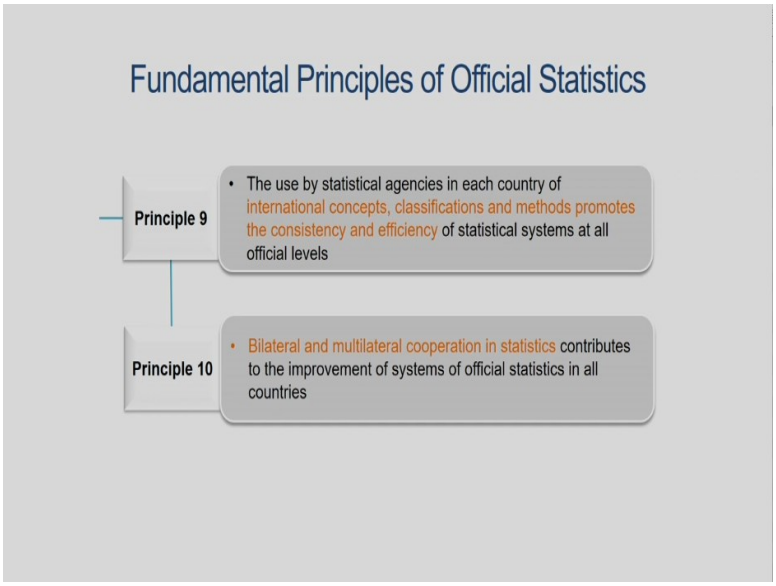
child nutrition, data on which is not collected by the census of India. However, there are various vital statistics that are collected through sample registration system in different intervals from the various administrative units such as the panchayats, by the Anganwadi workers and the ASHA workers, which are maintained in their records that can be used for a further analysis. So, therefore, it is the autonomy of the statistical agencies themselves to decide with regard to what are the data sources that they want to collect data on and compile them for further use.

A sixth principle is with regard to individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons are to be strictly confidential and used exclusively for statistical purposes or research purposes; and mostly when you are using it for policy formulation. Therefore, the data is highly confidential and has to be used exclusively.

Seventh principle is that the laws, regulations and measures under which the statistical systems operate are to be made public. The public at large must be aware of what are the laws rules and regulations under which the data is being collected, personalized data is being collected from them. Whether they are entitled, whether they are bound to provide information to the statistical agencies regarding the information that is being collected from them. So, therefore, that is also within the mandate of the official statistics, laws, rules and regulations, that the officials must be ready to carry out.

Eighth principal is regarding the coordination among statistical agencies within countries to achieve consistency and efficiency in the statistical system. So obviously, when we are carrying out, when the official agencies are carrying out data collection processes, it needs to be compatible across time. And therefore, efficiency and consistency are 2 important markers that needs to be looked out, as far as official statistics is concerned.

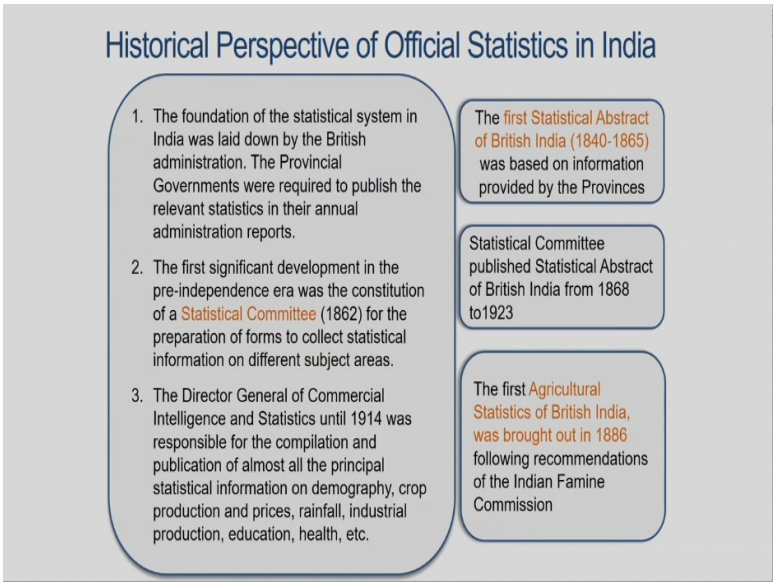
(Refer Slide Time: 12:01)



A ninth principle is that the use by statistical agencies in each country of international concepts, classifications and methods promote the consistency and efficiency of statistical systems at all official levels. And lastly, bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

So, in a way to summarize what is official statistics, these are statistics that are put out by the government through its various statistical agencies. And it is largely a merit good, a public good. The amount of official statistics that are coming out is to be used by the public at large, for understanding the different kinds of policies that are being designed and implemented for them. So, in that sense this is a merit good on which every citizen of India is entitled to gather information, public information regarding the data that is being collected. And as far as development researches are concerned, these kinds of data that are coming out which form secondary data sources, when we carry out our study are extremely essential for us to base our hypothesis on and sometimes, to also give an overall picture of what we are setting out to do.

(Refer Slide Time: 13:29)



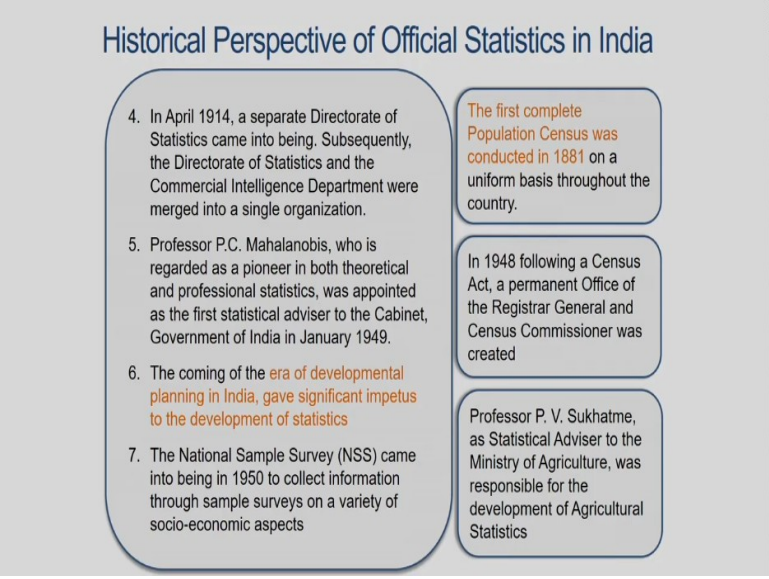
Now, let us get a brief historical perspective of official statistics in India, because official statistics in India has a long history and we have been churning out official statistics particularly with regard to demographics in India, right from the pre-independence period. And that will also give you a sense of what are the data to look out for when we are doing some kind of a long-term analysis or a longitudinal study on certain indicators.

Now the foundation of the statistical system in India was laid by the British administration, because the provincial governments were required to publish relevant statistics in their annual administration reports. And this is how the first Statistical Abstract of British India was based on information provided by the provinces. The first significant development in the pre-independence era was the constitution of a Statistical Committee in 1862, for the preparation of forms to collect statistical information on different subject areas. So, you have the Statistical Committee published, Statistical Abstract of British India from 1868 to 1923.

The director general of Commercial Intelligence and Statistics until 1914 was responsible for compilation and publication of almost all the principle statistical information on demography, crop production and prices, rainfall, industrial production, education and health, etcetera. And the first Agricultural Statistics of British India was brought out in 1886, following the recommendations of the Indian Famine Commission. And some of you who are aware of this literature would know that, the 1860s and the 1870s, the later part of the nineteenth century and the early part of the twentieth century, where famines were a regular occurrence in India. Various statistical exercises took place at the behest of the British Government to come up with the number of deaths that occurred due to famines. And that is how we have a very

reliable information with regard to famine deaths in India, right from the pre-independence period.

(Refer Slide Time: 15:51)



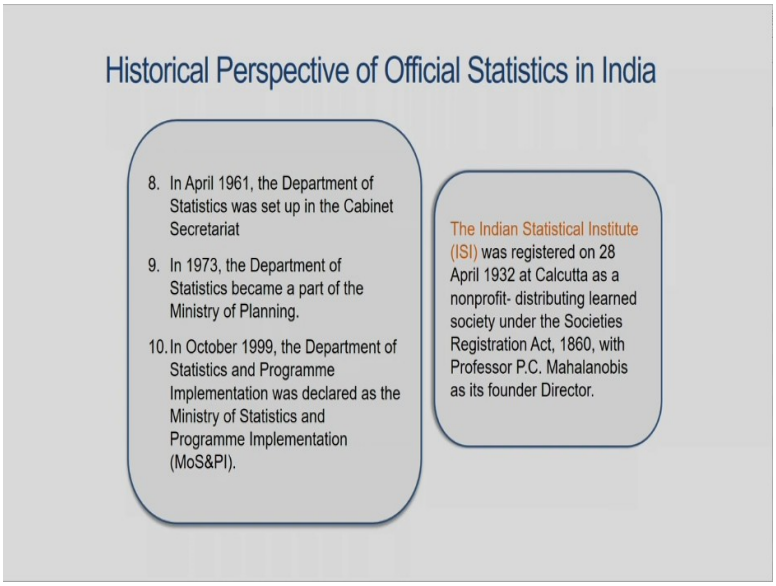
In April 1914, a separate Directorate of Statistics came into being. And subsequently, the Directorate of Statistics and Commercial Intelligence department were merged into a single organization. Professor P. C. Mahalanobis, who is regarded as a pioneer in both theoretical and professional statistics, was appointed as the first statistical advisor to the Cabinet, Government of India, in January 1949. And that also marked the coming of the era of development planning in India, which gave significant impetus to the development of statistics.

And that also saw the formation of the National Sample Survey Organization in 1950, which was empowered to collect information through sample surveys in a variety of socio-economic aspects. And along with the Census of India, the National Sample Survey Organization is another very important data source, providing sample data, a large sample data on various aspects. For example, on employment, unemployment; consumption, expenditure; on morbidity, mortality rates; on occupational structures of the country and so on. So, these are two important data sources, which saw its beginning, because of this kind of a statistical revolution happening in the country post-independence.

Certain important information to keep in mind: The first complete population census was conducted in 1881, on a uniform basis throughout the country. In 1948, following a Census

Act, a permanent Office of the Registrar General and Census Commissioner was created. And Professor P. V. Sukhatme served as Statistical Advisor to Ministry of Agriculture; and was responsible for the development of Agricultural Statistics.

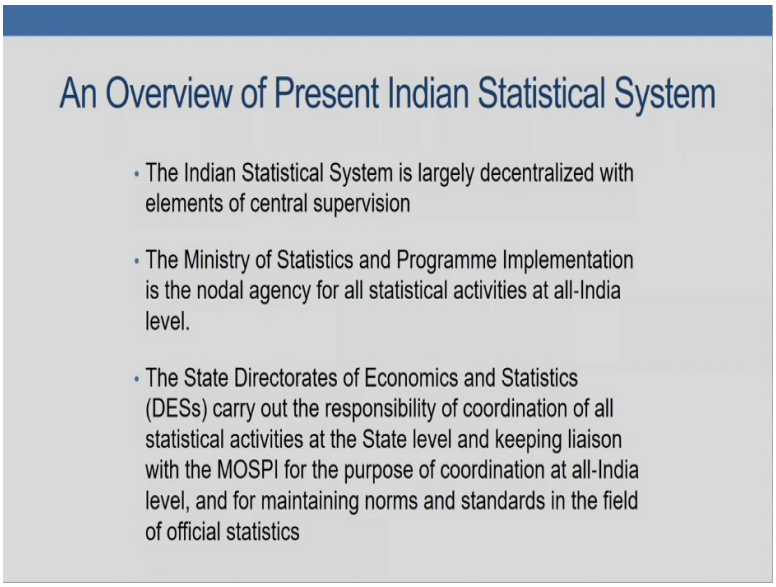
(Refer Slide Time: 17:39)



In 1961, the Department of Statistics was set up in the Cabinet Secretariat. And in 1973, the Department of Statistics became a part of the Ministry of Planning. In October 1999, the Department of Statistics and Programme Implementation was declared as a Ministry of Statistics and Programme Implementation. And the Indian Statistical Institute was registered in 1932 under the directorship of Professor P. C. Mahalanobis for carrying out furthering research on official statistics in India.

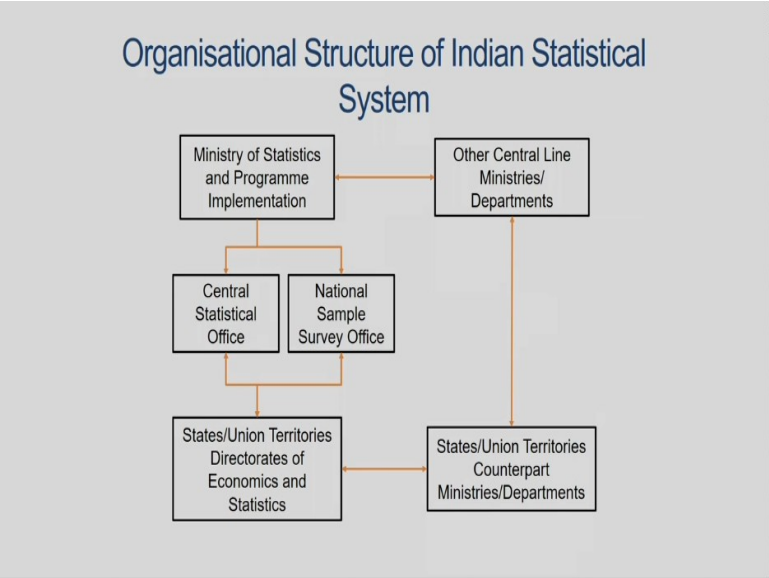
So, this is a brief timeline of how the statistical system in India has developed. And, a number of changes have happened within the statistical system over the period of last 2 decades. So, let us try and understand the Indian Statistical System.

(Refer Slide Time: 18:29)



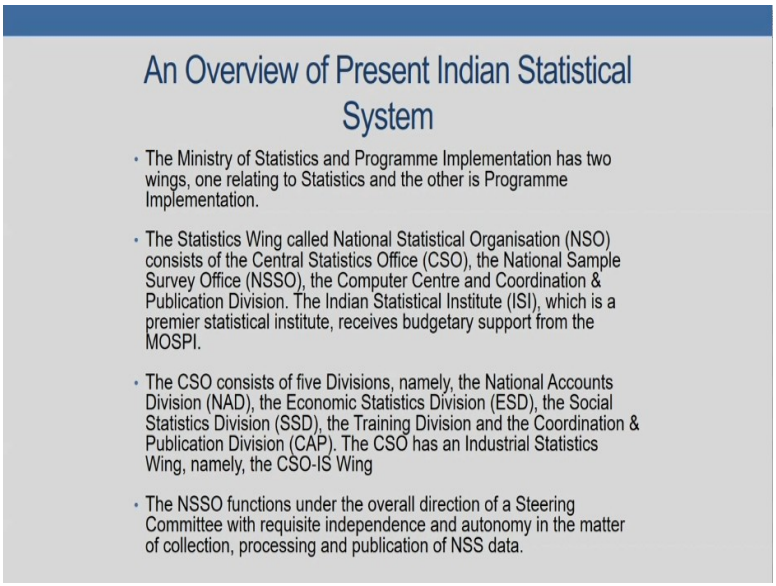
This will give you an overview of the present Indian Statistical System. As I pointed out in the beginning, it is decentralized. We are a federal system. The Centre and the states together churn out statistical information. So, it is largely decentralized with elements of Central supervision. The Ministry of Statistics and Programme Implementation is a nodal agency for all statistical activities at all India level. And at the state, we have the Directorate of Economics and Statistics that carry out the responsibility of coordination by liasoning with the Ministry of Statistics, for purpose of coordination at all India level; and for maintaining norms and standards in the field of official statistics. So, at the Central level, we have the Ministry of Statistics and Programme Implementation. And every state has a Directorate of Economics and Statistics for churning out what is called official statistics in India.

(Refer Slide Time: 19:26)



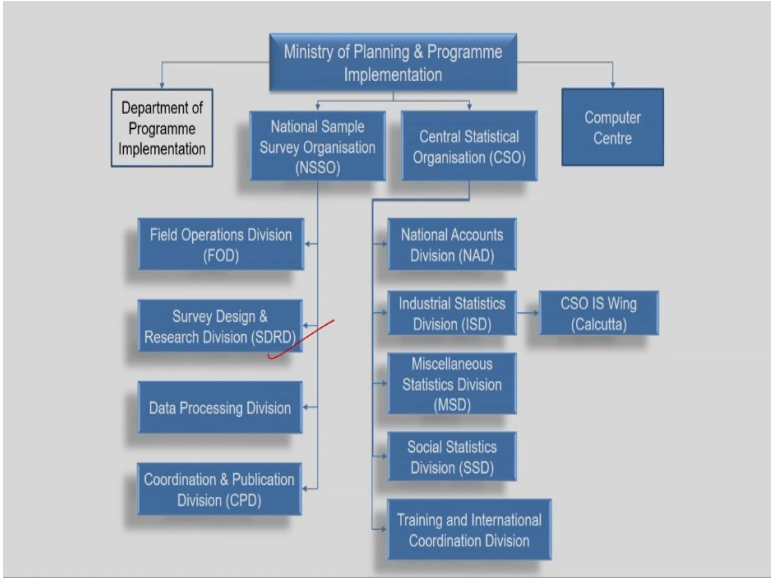
So, this is how the organizational structure of Indian Statistical System looks like. The ministry; and then there are other Central Line Ministries and Departments. Under the Ministry of Statistics, we have 2 agencies, the Central Statistical Office, sometimes also called the Central Statistical Organization, CSO and NSSO, National Sample Survey Organization. And both of them in coordination direct the Directorates of Economics and Statistics in the states and union territories. And under the Central Line Ministries and Department, we also have their counterpart departments in various states and union territories. However, all of these agencies work in unison, try and coordinate with each other, their activities with regard to collection of data.

(Refer Slide Time: 20:20)



Now, the Ministry of Statistics has 2 wings. One is related to statistics and the other is Programme Implementation. The statistics wing is called the National Statistical Organisation, which consists of the CSO, the NSSO, the Computer Centre and Coordination and Publication Division. The Indian Statistical Institute, which is a premier statistical institute, receives budgetary support from the Ministry of Statistics. The CSO consists of 5 divisions, the National Accounts Division; Economic Statistics Division; the Social Statistics Division; Training Division; and Coordination and Publication Division. CSO also has an Industrial Statistics Wing namely the CSO-IS Wing. And the NSSO functions under the overall direction of a Steering Committee with requisite independence and autonomy in the matter of collection, processing and publication of NSS data.

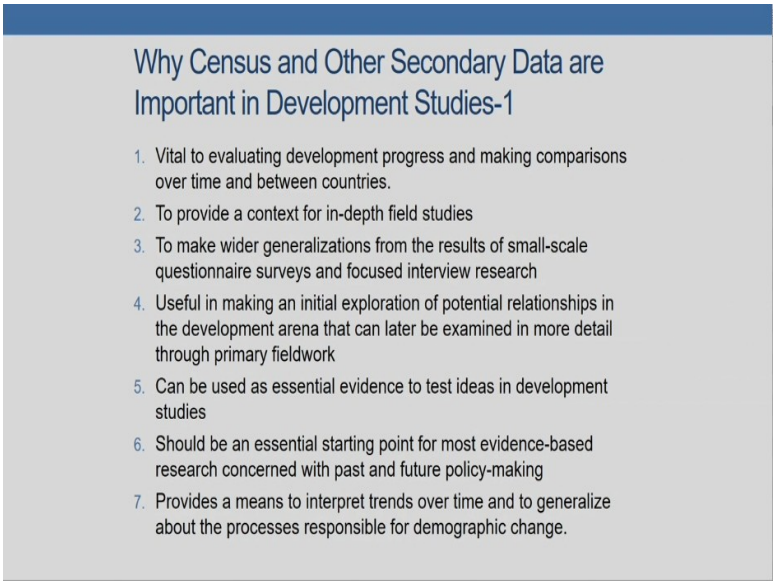
(Refer Slide Time: 21:12)



So, this is the flow diagram of what I just mentioned. You have the Ministry of Planning and Programme Implementation at the Centre. They have a Department of Programme Implementation and a Computer Centre. And then, there is NSSO and the CSO. NSSO has a Field Operations Division; Survey Design and Research Division; a Data Processing Division; Coordination and Publication Division. Similarly, CSO has a National Accounts Division; Industrial Statistics Division; Miscellaneous Statistics Division; Social Statistics Division; Training and International Coordination Division. The Industrial Statistics Division also has a wing which is called a CSO-IS, Central Statistical Organization Industrial Statistics Wing located in Calcutta.

Now, for those of you who are working on secondary data sources for collecting quantitative data on development statistics; and are interested for example, in understanding how different large sample surveys are designed by the NSSO, it will be very helpful to visit the Survey Design and Research Division of the NSSO, to understand the larger survey designs and how surveys are carried out. And although these designs are also disseminated through reports, which are freely available on the website of the Ministry of Statistics and Programme Implementation, and I would urge each one of you who is interested in looking up these data to visit the website of the ministry and download the reports. The reports are available right from the 1950s and 1960s onwards. They are all digitized these days. And accessibility has become easier, as far as these NSSO and CSO reports are concerned.

(Refer Slide Time: 23:14)



Okay. Now, let us come to the question of why census and other secondary data are important in development studies. Now, one of the first reasons why it is important is of course that it is vital to evaluating development progress and making comparisons over time and between countries. And it also helps us to provide a context for in-depth field studies. For example, if we go back to our example of complimentary feeding practices that we have been taking in the last classes, in the earlier classes, for being able to identify the field with regard to where we want to conduct a study on complimentary feeding, we might want to look up, say, for example, the juvenile sex ratio rates for a certain location since the 1960s onwards. And post-independence, we do have census data available from 1951 onwards. And this is how it enables us to compare very basic indicators that contribute to our larger study over a period

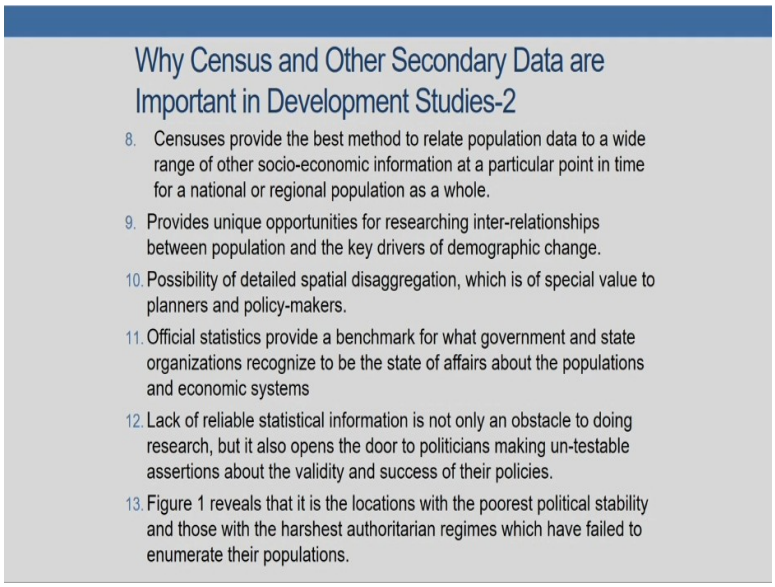
of time. So, it provides a context for in-depth field studies. It also helps us to make wider generalizations from the results of small-scale questionnaire surveys and focused interview research. It is also useful in making an initial exploration of potential relationships in the development arena that can later be examined in more detailed through a primary field work.

It can be used as essential evidence to test ideas in development studies. To take an example, suppose one is working at the occupational structure of the country during the period of 1990s and 2000s. Now, one of the starting points would be to look at how the occupational structure of the country was right from the 1950s onwards. And whether we see any kind of a change. And one of the important indicators to begin with could be the worker and non-worker estimate of a certain country. And now, we know that census data gives out information on worker population and non-worker population. Similarly, main worker population, marginal workers population. And these estimates can be drawn from the census for over a period of time and then compared which will give us a general idea of how things are, how things have been. And that can give us a motivation to carry out further research for a more contemporary period that we are attempting.

So, it can be used as essential evidence to test ideas in development studies. It should be an essential starting point for most evidence-based research concerned with past and future policy making. It provides a means to interpret trends over time and to generalize about the processes responsible for a demographic change.

Now, censuses provide the best method to relate population data to a wide range of other socio-economic information at a particular point in time for a national or regional population as a whole. It provides unique opportunities for researching interrelationships between population and the key drivers of demographic change. There is also a possibility of detailed spatial disaggregation which is of special value to planners and policymakers. For example, census data gives us information at various disaggregated levels. We get data at the state level, at the district level, at the block level and also, if we can identify from the data, at the panchayat level, as well as at the revenue villages level. So, the various levels of disaggregation at which data is available has a possibility of detailed spatial disaggregation. And that can have huge consequences for policy planning and for policymakers.

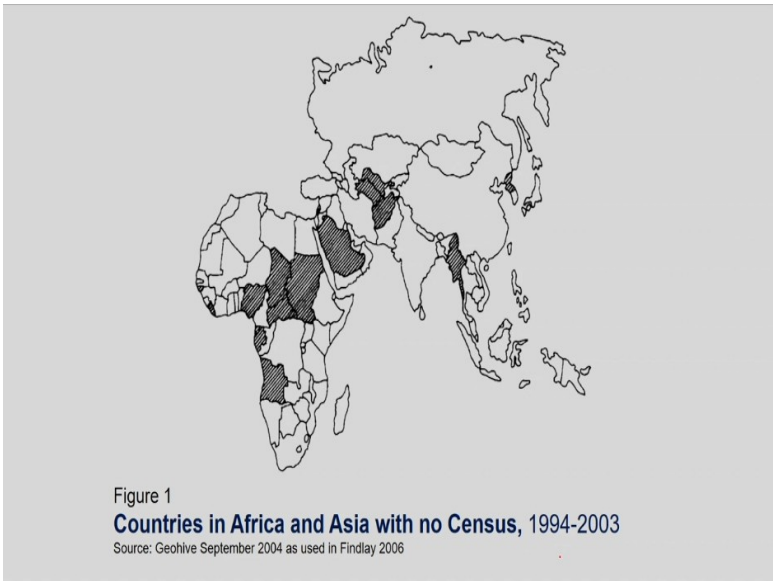
(Refer Slide Time: 27:29)



Official statistics also provide a benchmark for what government and state organizations recognize to be the state of affairs about the populations and economic systems. Lack of reliable statistical information is not only an obstacle to doing research, but it also opens the door to politicians making untestable assertions about validity and success of their policies. We can take a simple example of literacy rates. If literacy rates over a period of time in a certain village has not shown any remarkable increase, then we can safely conclude or we can draw some conclusions with regard to a schooling infrastructure in that locality. And whether the spread of schooling has increased over a period of time or not. This is just to give you a very simple example of how to check the untestable assertions about validity and success of policies.

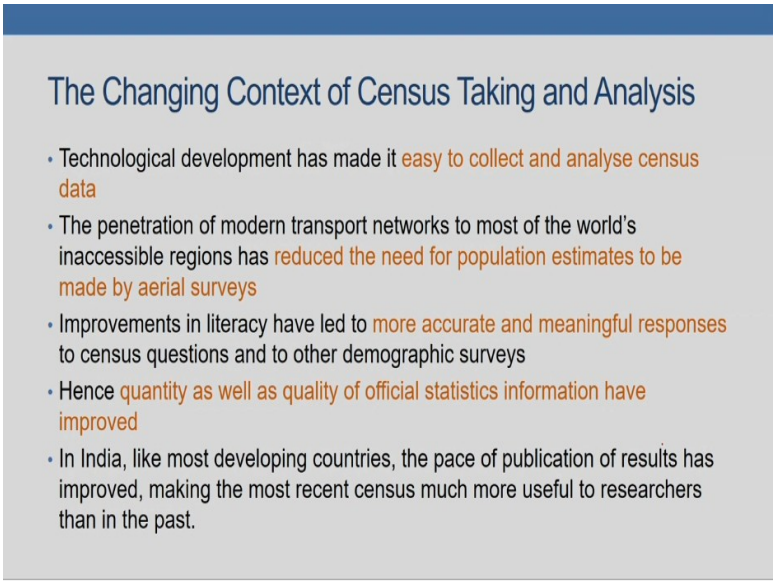
The next figure reveals that it is the locations with the poorest political stability and those with the harshest authoritarian regimes which have failed to enumerate their populations. This is what I meant when I said that official statistics or bringing out official statistics is also a democratic exercise. Because experience has shown us that countries with more authoritarian regimes have been less successful in churning out census data. And that leads to serious debilitating concerns with regard to policy planning and implementation.

(Refer Slide Time: 29:02)



So, these are countries in Africa and Asia, which had had no census between 1994 and 2003, because of various issues, various kinds of peace and conflict issues in these regions. And that has had serious implications on policy planning.

(Refer Slide Time: 29:40)



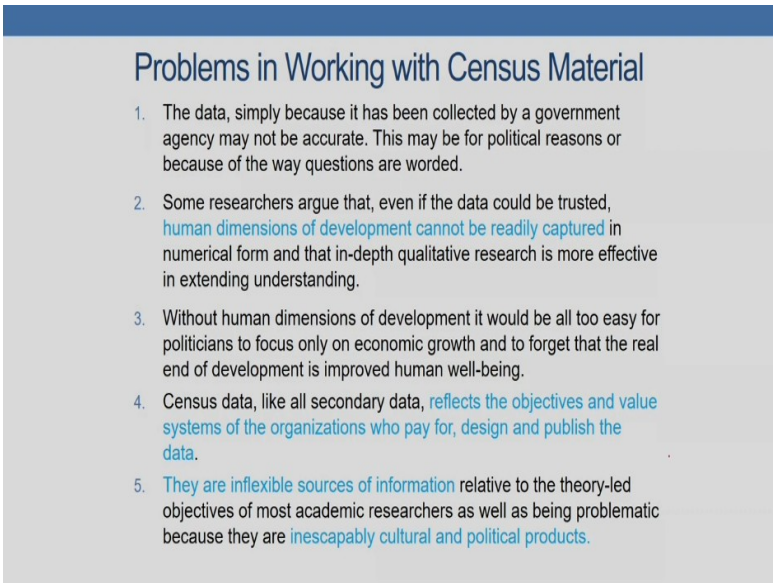
Now, let us also understand the changing context of census taking and analysis. Because even 10 years back or 15 years back, development researchers did not have access to, open access to census data online. But these days, because of the intrusion of technology and because of the enabling factors of technology, dissemination has become very easy. And it has become very easy for development researchers to have access to these data. But it is also important to

understand the changing context of census taking and analysis with regard to various other issues.

Now, technological development has made it easy to collect and analyze census data. We have software that help us analyze the data much better and put it out on the public domain with a less time gap. The penetration of modern transport networks to most of the world's inaccessible regions has reduced the need for population estimates to be made by aerial surveys. Now, improvements in literacy have led to more accurate and meaningful responses to census questions and to other demographic surveys. This is one very important changing context, because of the experience of people with regard to census surveys or sample surveys; and also because of the awareness among the population at large, regarding policy initiatives and policy implementation, people have become smarter in terms of responding to the questions that are posed at them. And therefore, we have more accurate and meaningful responses. But on the flip side of it is that people have also come up with ways of dodging questions and providing wrong responses for keeping in view the policy benefits that they might get, if they answer their questions as such.

So, quantity as well as quality of official statistics information have improved. In India, like most developing countries, the pace of publication of results has improved, making the most recent census much more useful to researchers than in the past. Often, you would see that the 2001 and 2011 censuses are highly referenced than the earlier census data, because of the digitization that has occurred with regard to these census data. And they are being used more frequently. And connecting data between different sources has also become much easier. And there are various researchers who are working on projects of connecting these different official data sources and coming up with more meaningful interpretations.

(Refer Slide Time: 32:29)



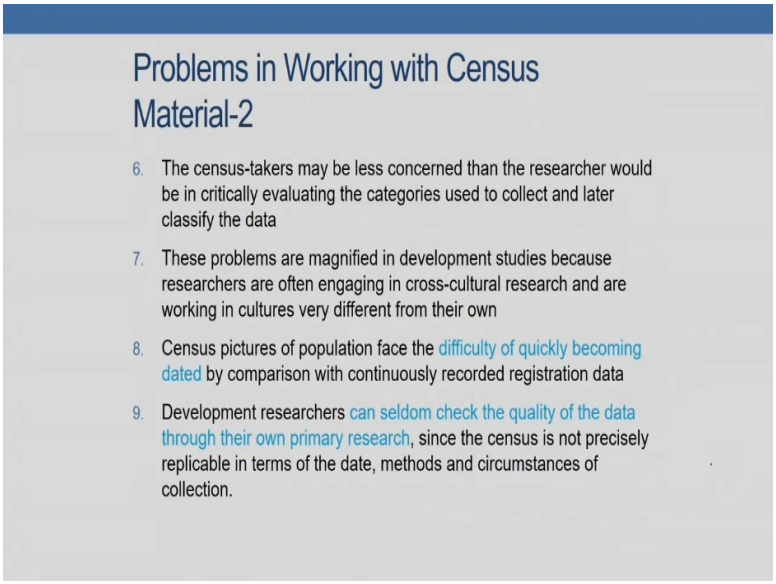
However, there are also problems in working with the census material. That also needs to be pointed out. And development researchers must bear these in mind. One is that the data, simply because it has been collected by a government agency, may not be accurate. As the government agenda with regard to what is it that needs to be put out more can bias the amount of information that is coming out. This may be for political reasons or because of the way the questions are worded. Some researchers argue that even if the data could be trusted, human dimensions of development cannot be readily captured in numerical form and that in-depth qualitative research is more effective in extending understanding. However, official data sources hardly ever focus on any qualitative questions, because of the amount of information that is being collected and the size of the population that is being covered.

Census is a huge exercise of counting the entire population of the country. And therefore, there is a lot of reductionism as far as census data is concerned, because the data is reduced to numbers. And there is no scope for collecting or processing qualitative information. Similarly, the NSSO, the CSO, you have other data sources such as the National Family Health Survey, which is carried out by the International Institute of Population Sciences, the Demographic Health Surveys, which are ultimately in the form of numerical. And therefore, there are perceptions, there are arguments that say that the human dimensions are not being able to be covered properly due to these surveys.

Now, census data, like all secondary data, reflect the objectives and value systems of the organizations who pay for design and publish the data. They are inflexible sources of information, relative to the theory-led objectives of most academic researchers, as well as

being problematic because they are inescapably cultural and political products. The very fact that they are coming out of the government agencies, they are political products in that sense that, there is a lot of apprehension with regard to what are these different government official statistics trying to portray. However, given the massive scale in which the data is collected and the consistency and ethical guidelines that guide the collection of these data, the procedures of data collection of these official statistics, it is imperative on the part of development researchers to make a beginning with official statistics. And point out if there are discrepancies based upon their own data collection, if any, through dissemination of reports or publications.

(Refer Slide Time: 35:27)

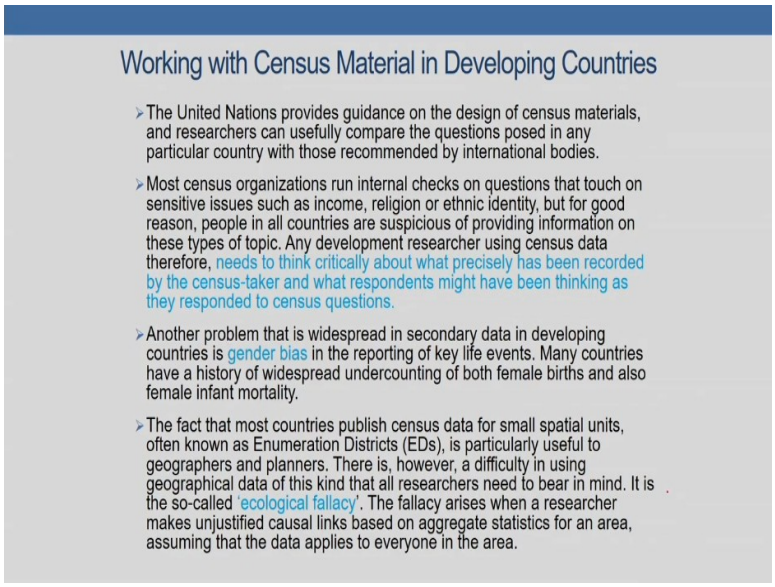


The census takers may be less concerned than the researcher would be in critically evaluating the categories used to collect and later classify the data. Which is very obvious, because the census takers are guided by predesigned guidelines provided by the government agencies. Now, these problems are magnified in development studies, because researchers are often engaging in cross-cultural research and are working in cultures very different from their own. And census pictures of population face the difficulty of quickly becoming dated, by comparison with continuously recorded registration data.

Development researchers can seldom check the quality of data through their own primary research, since the census is not precisely replicable in terms of date, methods and circumstances of collection. However, there are different ways of dealing with these

problems. And development researcher, social science researchers have found ways of dealing with these data inaccuracy problems and still trying to come up with a representative view or a general understanding of how data works.

(Refer Slide Time: 36:38)



Let me conclude this lesson with working with census material in developing countries. The United Nations provides guidance on design of census materials. And researchers can usefully compare the questions posed in any particular country, with those recommended by international bodies. Most census organizations run internal checks on questions that touch on sensitive issues such as income, religion or ethnic identity, but for good reason. People in all countries are suspicious of providing information on these types of topic. And any development researcher using census data, therefore needs to think critically about what precisely has been recorded by the census taker and what respondents might have been thinking while they are giving out this information. So, therefore, it is important that secondary data sources should be critically used by the development researchers, although it marks a very beginning, a very important beginning point, it should not be taken without any critique or it should not be uncritically used by the development researchers.

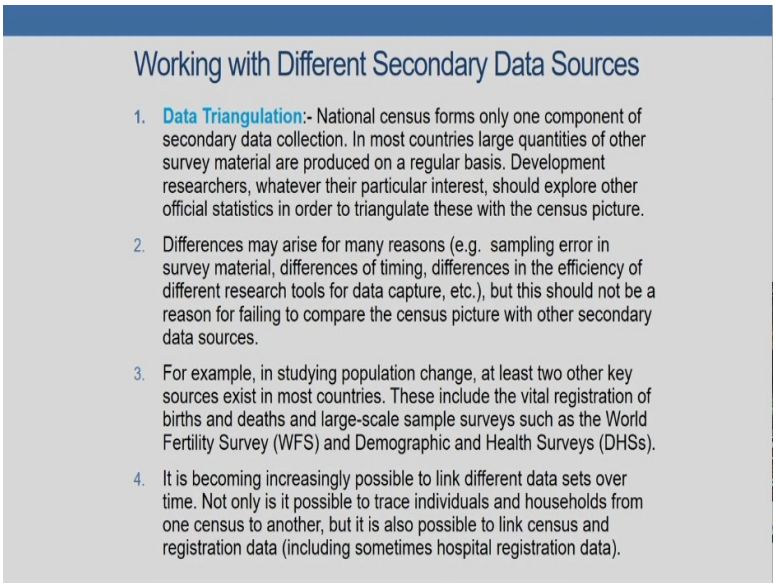
Another problem that is widespread in secondary data in developing countries is gender bias in reporting. Many countries have a history of widespread undercounting of both female births and also female infant mortality. And these are arenas where development researchers need to go to the field, in spite of the fact that secondary data sources is available. Often,

people make this point that, if secondary data is available, why carry out a primary survey. Now, this is one of the examples that answers this question of why primary data, primary investigation is important even if secondary data sources exist. Because of the biases within the system and because of the errors of survey design and because of the time provided by the secondary data sources, the impersonal ways in which data is corrected by the secondary data sources, by official agencies. Therefore, primary investigation can give us a completely different world view of how things are, that may not be captured by the secondary sources.

Now, the fact that most countries publish census data for small spatial units, often known as enumeration districts, is particularly useful to geographers and planners. There is however a difficulty in using geographical data of this kind, that all researchers need to bear in mind. It is called ecological fallacy. This fallacy arises when a researcher makes unjustified causal links based on aggregate statistics for an area, assuming that the data applies to everyone in the area.

Now, let me try to simplify this by saying that, let us say we have a nutrition statistics for a certain district in India. And the district may constitute of a diverse population; constituting of various tribes and other ethnic minorities or people belonging to different ethnicities. Now, when we have a district level estimate, we make this erroneous assumption or erroneous conclusion that the estimate is representative of the entire population of the district. But we are not laying emphasis on the different kind of horizontal inequalities that may exist, because of different populations belonging to different ethnic ethnicities. And that is where then the use of primary investigation becomes very important. Also based upon secondary data, we can always make those categorizations and see, whether the estimates that are coming out is representative of the entire district or of the entire geographical unit that we are considering. Or, there is a different story to tell, because of the composition of the demographics that we have in that location.

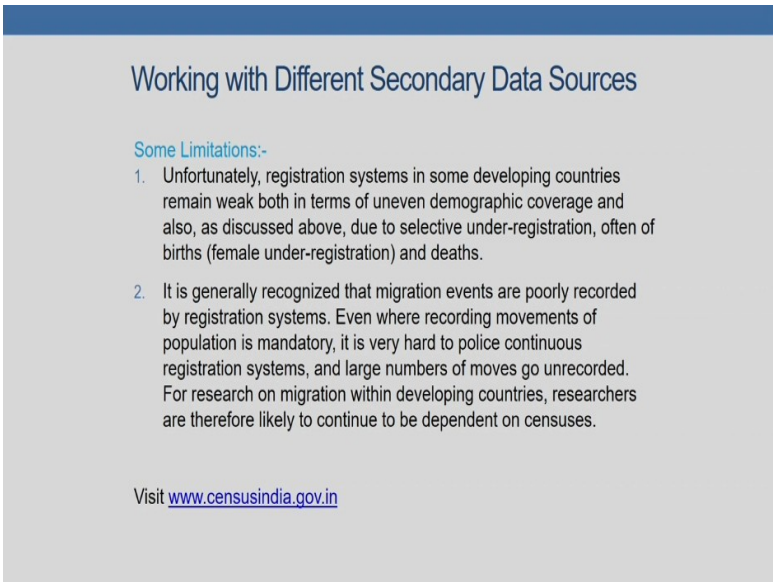
(Refer Slide Time: 40:41)



Data triangulation is extremely important. National census forms only one component of secondary data collection. And in most countries, large quantities of other survey material are produced on a regular basis. And development researchers, whatever be their particular interest, should explore other official statistics in order to triangulate this with the census picture. This is often done in the case of census and NSSO data in India. When we have worker population rates from census and we have work participation rates estimates from the NSSO; often, data triangulation is carried out, to be able to compare the information coming from 2 different sources.

Differences may arise for many reasons. Example: sampling errors, differences of timing, survey material, efficiency of different research tools, etcetera. But this should not be a reason for failing to compare census pictures with other secondary data sources. There are ample literature in India. For example, which talks about the difficulties in being able to compare the different sources. However, as I have just mentioned, that various tools and techniques have also come up, various analysis have come up, which has helped us overcome these barriers of data comparison also. For example, in studying population change, at least 2 other key sources exist in most countries. This include the vital registration of births and deaths; and large-scale sample surveys such as World Fertility Survey and Demographic and Health Surveys. These can be compared with census. It is becoming increasingly possible to link different data sets over time. Not only is it possible to trace individuals and households from one census to another. But it is also possible to link census and registration data including, sometimes hospital registration data.

(Refer Slide Time: 42:28)



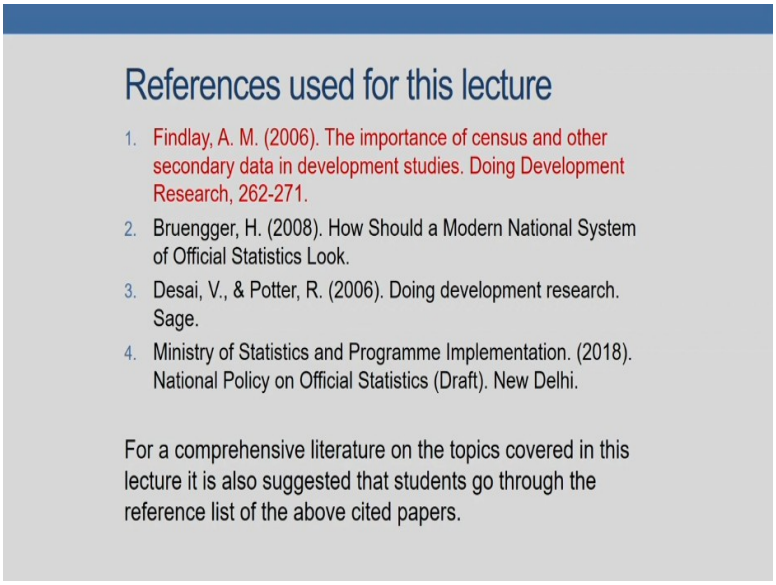
This is, these are some of the limitations of working with different secondary data sources. Registration systems in some developing countries remain weak, both in terms of uneven demographic coverage; and also due to selective under registration, often of births and deaths. It is interesting that, when we look at the NSSO data; for example, often you would see that the Northeast of India is excluded, citing various problems of unreachability in these locations to be able to carry out surveys. And these are some of the limitations of using secondary data. There are locations for which secondary data is simply not available. And although these are difficult areas of study for development researchers also, because they do not have anything to base their study on. But these are also sure-shot areas where researchers need to carry out primary studies to be able to come up with meaningful conclusions.

It is generally recognized that migration events are poorly recorded by registration systems. Even where recording movements of population is mandatory, it is very hard to police continuous registration systems and large numbers of moves go unrecorded. For research on migration within developing countries, researchers are therefore likely to continue to be dependent on censuses.

Please visit the censusindia.gov.in to get initiated. Those who have not yet been initiated to census data, I would request you to visit this website. As also the website of the Ministry of Statistics and Programme Implementation to get initiated into the major official statistics and

secondary data sources that are there. And you could start analyzing these data to base your research on development studies on.

(Refer Slide Time: 44:23)



These are the references that I have used for this lecture. I would, for those interested in looking up more on this may kindly study the book by Findlay, The Importance of Census and Other Secondary Data in Development Studies in Doing Development Research. And also visit the Ministry of Statistics and Programme Implementation website. Read through the National Policy on Official Statistics. And books on by Bruengger, on How Should a Modern National System of Official Statistics Look; and Vandana Desai and Potter on Doing Development Research. For a comprehensive literature on the topics that I have covered, please also go through the reference list of the above cited papers.

Thank you very much for paying attention and see you in the next class.