

Outline of National Economic Census 2018 (NEC2018) of Nepal

1.1. Background

A reliable and strong statistical infrastructure like database is the foundation of organized and proper policy formulation, developing plans and programs. The Central Bureau of Statistics (CBS), has been contributing the data for various sectors of the economy to meet the requirements of the policy makers and planners. At present days, demand of enormous data requirements exists in various sectors, the collection and update of data for various sectors are a challenge. Fairly reasonable data for the agriculture and non-agriculture sectors is highly desired. Keeping in view the importance of the various sectors of economic activities and non-availability of basic frame for adoption in various sampling methods for collection of data and estimation of various parameters or establishing business directory, it was necessary to conduct Economic Census in the country as a benchmark source. With this background, the CBS initiated to start the first Economic Census for preparing frame of establishments which can be used for various thematic surveys for collection of data on detailed characteristics of the economy. The basic purpose of conducting the economic census (EC) was to prepare a frame for follow up surveys intended to collect more detailed sector specific information. In view of the rapid changes in the economy, it is necessary to conduct the economic census periodically in order to update the frame.

An Economic Census (EC) is the complete enumeration of all establishments belonging to a given population at a particular time with respect to well defined characteristics located within geographical boundaries of a country. Basically, it is the whole process of collecting, compiling, processing, analyzing, and publishing economic data related to all economic units of the country. Census is a well-structured statistical operation providing timely, reliable, accurate and detailed data on the size and distribution of economic units of different categories. The first National Economic Census (NEC) of Nepal was conducted from 14 April to 14 June 2018 in all over the country. This will also be a major source of statistics on economic activities in the country. The EC essentially develops a sample frame for conducting various thematic economic surveys, and develops business registers for large and small scale establishments in different sectors like agriculture, mining and

quarrying, manufacturing, wholesale and retail trade, education, health etc. A large number of new economic establishments emerge and diminish over time. It is imperative to conduct economic census covering all establishments conducting different sectors of economic activities as mentioned in International Standard Industrial Classification of all economic activities (ISIC revision 4) in order to know real picture of the economy. It was one of reasons that Government of Nepal decided to conduct the first National Economic Census of the country realizing to fulfill the shortfall of economic data in the country and to develop statistical business register in Nepal.

The economic census is a primary source of benchmark economic statistics providing major data about the structure and functioning of the national economy about both the formal and informal sectors. The first economic census of Nepal will play an important role in the improvement of national accounts statistics, production and price indices, and other statistical areas, which are used to measure short-term changes in the economy. The major benefit is that the census results will support in developing the statistical business register of the country which will enable CBS to conduct a large number of economic surveys such as Integrated (Large Scale) Manufacturing Industries Survey, Distributive Trade (Whole Sale, Retail Trade), Accommodation and food service activities Surveys, Services Survey, etc. The NEC data will be the basic economic data up to the local levels.

1.2. Objectives

The main objective of the first National Economic Census was to know the nature of the economic structure of the Nepali economy at preset and to provide comprehensive statistical information for policy makers, planners, researchers, business communities, and other users for policy formulation and development planning, research and study. In general, the basic objective is to provide information on number of establishments and number of persons engaged, industry wise, of all the sectors (excluding unregistered *agriculture, forestry and fisheries, public administration, defense and compulsory social security, Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use and Activities of extraterritorial organizations and bodies*) of the country.

The other objectives are:

- a. to provide with the fundamental statistics on the status of the business activities of the establishments and enterprises including the financial aspects;
- b. to provide statistics to central, provincial and local governments for the formulation of plan and policy-making;
- c. to provide statistics to strengthen national accounting system;
- d. to make a base for statistical business register;
- e. to provide statistics of related field to the business owners or experts, researchers and other statistics users to formulate plans and policies for the prosperity of their business;
- f. to provide with the directories of establishments and enterprises for the sampling frame of various sample surveys on businesses.

1.3. Reference date of the Census

The Census was taken as of 14 April 2018. The confirmation of Enumeration Area, the establishment listing, e-Census, and the enumeration were simultaneously conducted within a two-month period from 14 April to 14 June 2018.

1.4. Scope and Coverage

1.4.1. Scope:

All the establishments engaged in non-agriculture economic activities and (registered) agriculture, forestry and fishery economic activities according to NSIC-2018, except Section-O (*Public administration and defense; compulsory social security*), Section-T (*Activities of households as employers; undifferentiated goods- and services- producing activities of households for own use*) and Section-U (*Activities of extraterritorial organizations and bodies*), were included in the scope of National Economic Census 2018. Not registered Agriculture activities of Section A was not covered as such activities have been or under the scope of National Sample Census of Agriculture. Similarly, Section-O was excluded considering the information on the activities are covered from the government sector. As such, Section-T was excluded considering that activities under this section have been conventionally covered partly by the Agriculture Census and partly by the Labor Force Survey. The establishments under Section-U were not covered in the scope of the census as the activities under this section are not practically taken into account to the national accounts aggregates globally

and kept outside the scope of the economic census. All establishments engaged in the activities under the sectors of NSIC 2018 mentioned above for revenue generation or for serving the community were considered in the scope of this Economic Census. However, the establishments of mobile nature which keep on moving from one place to another place not having fixed location to operate the activities, Illegal activities like smuggling, gambling, beggary, prostitution, *etc.*, and domestic paid helpers, whether they work in one household or in a number of households, drivers, *etc.* who undertake jobs for others on wages or salaries, and individuals engaged in different types of jobs depending on the availability of work e.g. loading, unloading, helping a mason or a carpenter, doing earthwork for a contractor or individuals working without associated in establishments were kept out of the purview of the NEC.

1.5. Coverage:

Geographically, the Census has covered the entire area, that is, 753 Local levels under 77 district and seven provinces of the country. All establishments except the mentioned excluded sectors were completely enumerated in the economic census.

1.6. Enumeration units

The enumeration unit in the Census was considered as “establishment”. The establishment was defined as follows, according to UN definition:

The establishment is defined as an economic unit that engages, under a single ownership or control - that is, under a single legal entity - in one, or predominantly one, kind of economic activity at a single physical location – for example, a mine, factory or workshop.

In addition, movable establishments such as street business which are doing business at the same place are included. But the mobile establishments which do not have any fixed place for business operation are not included in the Census.

1.7. Legal basis for Conduct of Economic Census

The legal provision of the statistical undertakings is one of the important aspects for empowering the census operation. The Statistics Act 1958 (Bikram Sambat 2015) has mandated the Central Bureau of Statistics for the "collection, consolidation, publication and analysis of statistics". In accordance with the Act, the Government may, by notified order, issue direction for the collection of statistics "concerning any matter". Notified order means an order published in the Nepal Gazette.

A National Economic Census 2018 proclamation or State Decree (*Rastriya Arthik Ganana 2075 ko aadesh, 2074*) in accordance with the existing Statistics Act 1958 (which was approved by the Council of Ministers on 12 January 2018) was issued on 15 March 2018 (1 Chaitra 2074). By this proclamation, the CBS was empowered to collect the information on different characteristics of the establishment engaged in economic activities as of the listing schedule (Form A) and main questionnaire schedule (Form B) within the period specified by the Bureau.

1.8. Census Planning, Management and Operation

A comprehensive census work-plan was developed with detailed activities in the timeline. The plan contained a description of all census activities from the beginning to the ending of the process including the pretest, pilot census. All operational procedures relating to the design of questionnaires, methodologies, data collection plan, training program and procedures, field control, manpower requirements, job descriptions of the supervisory census personnel, census publicity, and distribution of census materials, data processing and analysis and publication plans have been mentioned in the work plan and annual program. A calendar of activities for census operation was also developed. The census operation was undertaken as per the census calendar.

1.9. Formation of Steering, Technical and Thematic Committees

Several committees were formed for the smooth running of the pre- and post-census activities on Economic Census at the central level. District Economic Census Coordination Committees were also formed in 77 districts for

facilitating the coordination in undertaking the economic census. The names of the committees were as follows.

1. National Economic Census Steering Committee (headed by Vice Chairman of National Planning Commission)
2. National Economic Census Technical Committee (headed by Director General of CBS)
3. Joint Coordinating Committee (Headed by Director General of CBS)
4. National Economic Census – media committee (headed by Deputy Director General of Economic Statistics Division)

1.10. Questionnaire Forms, Manuals and Control Forms

Questionnaire forms are the tools used for the collection of required information from the target respondents. In the census, two kinds of the Census tools, namely, Form A (Listing form) and Form B (main questionnaires) were used for the enumeration of establishments. Manual is the tool to conceptualize the questionnaire as well as operationalize the field enumeration of the census. Six manuals namely Enumerator's Manual along with online (e-Census) manual for census enumeration, Map Reading manual for identifying the enumeration area, Nepal Standard Industrial Classification (NSIC) -brief Manual for ensuring the economic activity of the enumerated establishment, supervisors' manual, and Census Officers' manuals were prepared before the final enumeration. In addition, some control forms like enumerators' control forms were developed and supplied to the fields to regulate the census activities as well as to have a quick summary of the census data.

1.11. Mapping

A hierarchical geographical coding system in respect of new administrative units developed by CBS was employed in the census in order to identify the units uniquely from the highest to the lowest level of administrative units. CBS also developed the digital enumeration area maps of all enumeration areas, rural and urban municipalities with delineation of boundaries of the country. The available digital enumeration areas were provided to respective district census offices for the distribution while available paper enumeration area maps were also supplied to some selected urban centered district census offices. The main purpose of the enumeration area map was to assign the enumerators their respective enumeration areas and ensure to

find the assigned location and in establishing a strong control on checking the coverage error of the census.

1.12. Methodology of Data Collection

As mentioned earlier, two kinds of forms were used during the census for data collection. The following methods were employed for the data collection:

- a) Response through Internet, that is, e-Census;
- b) Individual enumeration by enumerator, identify targeting establishments based on the definition mentioned in the above 1.10, interview the representative of the identified establishment, and fill in Form B (or enter responses through electronic Form B on a tablet computer);

The individual enumeration was carried out through the method that an enumerator visited each establishment within a certain enumeration area, interviewed the owner or manager of the establishment or his/her substitute who was entitled to represent the establishment, and filled in the Census form. In addition to this, the self-enumeration method could be applied to the establishment, which requests to fill in the form by themselves. In case that the enumeration did not finish due to reason of establishments, Supervisors and Census Officers followed up the enumeration.

1.13. Pretest

Several pretests of forms were carried out in some selected enumeration areas in 2016/2017. The pretests aimed to test form-designing, enumeration methods, instructions to be included in Enumerators' Manual and so on, and its results have been utilized for making appropriate plans for the Census.

1.14. Pilot Census

Pilot survey or census is the dress-rehearsal of the main economic census operation. It is the way of testing the efficiency of census preparation which helps in understanding whether there has been any deficiency in any stage of census preparation. To examine the preparatory work of the main census, a Pilot survey was carried out as of 14 April 2017 (one year before the census reference date) within one and half months from 14 April to 31 May 2017 in selected Enumeration Areas of designated 66 districts under 33 Statistics Offices. The Pilot Census covered the issues of testing the appropriateness

of the census forms and other documents including respondents' burden, methodology of enumeration as conceptualized, field operation with supervision, data processing, tabulation and data analysis. The pilot survey aimed also to test work procedures of every stage of enumerators, supervisors, district statistics office, and CBS. After the pilot census, necessary changes were made in the process of preparation to ensure smooth census undertaking.

1.15. Publicity Campaign

Publicity campaign is considered as an important part of the census to make aware and inform the purpose of census and the duties to the respondents. Usually, people or respondents may show reluctance in providing data to the enumerators as they are not aware of the usefulness of statistics. Hence, publicity can contribute massively to motivate the respondents to respond to the questions in the census forms with the accurate information. In general, print and digital media were used as media campaign which added a new dimension to Economic Census 2018. The following activities were undertaken in connection with the campaign of Census 2018:

1. Messages by Prime Minister, Finance Minister, Secretary, and Director General were published in the media.
2. First National Economic Census 2018 was inaugurated by the Finance Minister which was widely covered in newspaper.
3. Regular advertisements inspiring the target groups were published or broadcasted in daily newspapers, radio and televisions respectively.
4. The jingles were aired by different radios.
5. The events of phone-in-programs, jingles were frequently aired by FM radios at central as well as districts.
6. Messages were sent to the mobile phone subscribers to inform them about the census.
7. Stickers, banners etc. were also displayed in many places across the country.
8. Leaflets, brochures were distributed to the target groups as well as the mass people.

9. Seminar/ Workshops/ Meetings:

- a. An inception seminar was organized in February 28, 2017 to inform the stakeholders about the first economic census in Nepal as well as to get feedbacks or data demand from the economic census.
- b. Similarly, a number of awareness seminars were conducted at the central level as well as in district level to sensitize users about the first

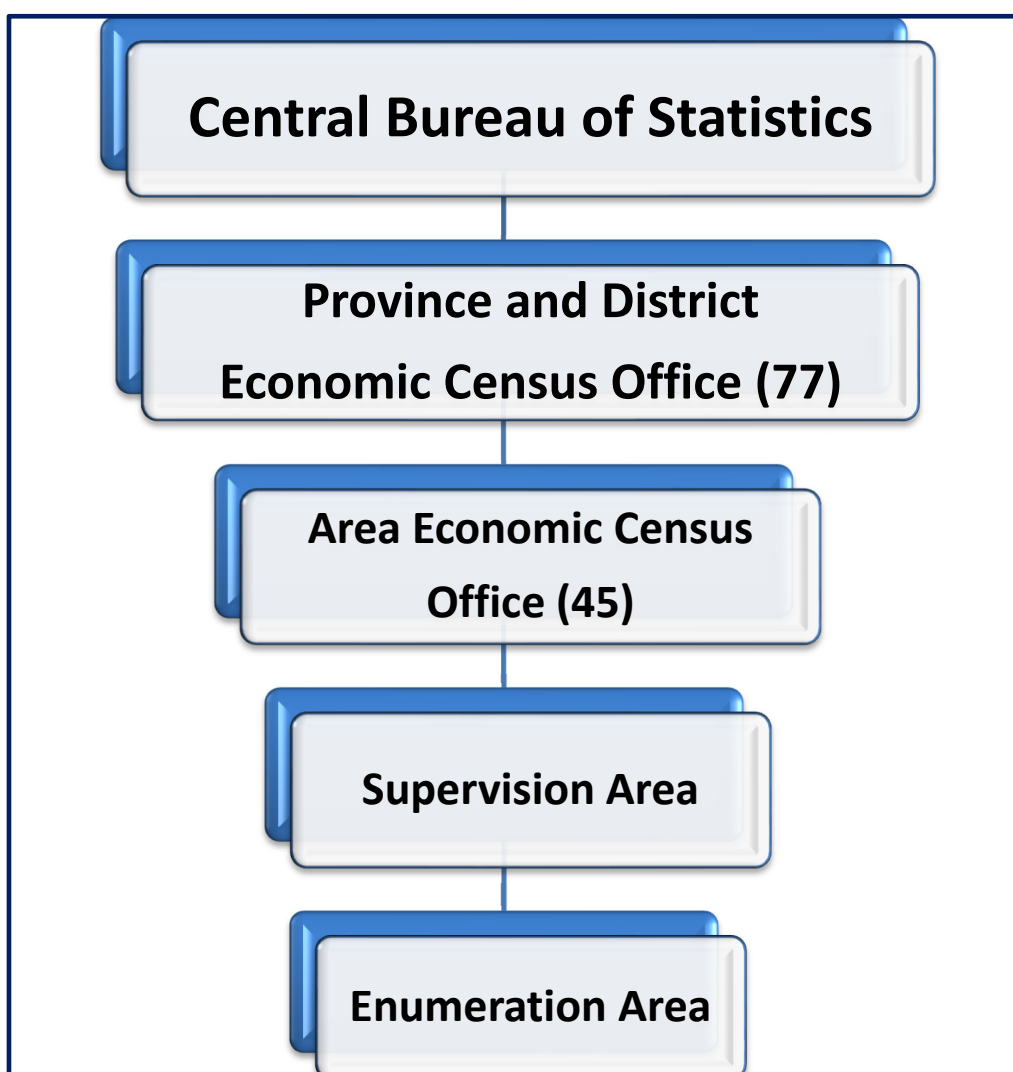
census in Nepal.

- c. Form/ manual preparation workshops were also carried out for the drafting of the Census forms and manuals with the aims of smooth conduction of training courses as well as the Census enumeration. Similarly, a feedback workshop of the pilot survey was organized for three days to get suggestions and feedbacks to contribute to the betterment of the real economic census.
- d. The meetings of National Steering Committee, Technical Committee, Media Campaigning Committee, and Joint Coordinating Committee (JCC) were also held in pre-census phase for the planning and implementation of the Census.

1.16. Census Organization

Organizational structure is an important aspect of successful operation of the first National Economic Census and it also influences the quality of data. Economic Census Section under Economic Statistics Division of CBS functions as central secretariat of National Economic Census 2018. Initially, it was planned of seven Regional Census Offices. The statistics offices headed by Directors in six provinces, and statistics officer of Surkhet Statistics Office in Karnali Province were given the dual roles to play National Economic Census Provincial as well as District Economic Census office with the perspective to control, manage district census activities and smooth conduct of census operation in the respective districts. In total, 77 district census offices were established for four months from 13 March to 14 July 2018. In addition, 45 sub district or area census offices were established as per predetermined for three months from 13 March to 14 June 2018.

The whole country was divided into 77 census districts and 45 sub-district census areas. The enumeration was carried out in 6743 wards of 753 local levels by 3355 enumerators. In average, one enumerator enumerated about 275 establishments. An enumerator was appointed for each Enumeration Area (EA) and a supervisor was designated for supervising the work of a group of about 8 enumerators.



1.16.1. District Census Office

In Nepal, 77 District Census Offices were established headed by District Census Officers for the period of four months from March 14 to July 14, 2018 for the Census enumeration. District Economic Census Officers (DECO) were appointed among from Directors, Officers, or Statistical Assistants of Statistics Offices (SOs), or were supported by offices other than CBS or Statistics Offices in the districts.

1.16.2. Area Census Office (Local Level Economic Census Office)

At most 45 Local Level Economic Census Offices were established in the designated districts for the smooth operation of the Census. The offices were headed by Officers (in Kathmandu) and Assistant Officers in other designated districts. Area Census Officers or Area Supervisors were deputed from among the staff of CBS or SOs.

1.16.3. Field Supervisor

A total of about 484 field supervisors were mobilized temporarily for the Census, and were seconded from qualified staff of CBS/SOs or other offices. Each supervisor was assigned a certain number of enumerators to accomplish their duties which were described in Supervisor's Manual.

1.16.4. Enumerator

The enumerators were employed temporarily for the Census. Each enumerator was assigned for one enumeration area which have been demarcated to accomplish their duties which are described in Enumerator's Manual. About 3,355 enumerators were mobilized in the country for two months to collect information from the establishments.

1.17. Training

Training is the most fundamental components of a census. A number of training courses, namely, Master Trainers' training, Census Officers' training courses, Area Census Officers/Area Supervisors training courses, and Supervisors/Enumerators' training courses were conducted for five days at the central level as well as district level during the Census implementation phase. The training courses were designed based on the census objectives, roles and responsibilities, the Census forms and manuals for achieving good quality of data at field with consistent knowledge. A comprehensive training was imparted to the census personnel to make them efficient in their respective jobs. Personnel directly involved in census operation, particularly, in data collection and processing, were trained intensively and thoroughly. The verbatim training manuals containing detailed instructions on the techniques of filling up the questionnaire and of other field operations were developed and provided to all trainees to ensure uniform training across the country. Besides, hands-on-exercise on the technique of data collection was also demonstrated. Training programs were arranged for five different levels of personnel holding different responsibilities. Those were Master Trainers, District Census Officers, Office Supervisors, Field Supervisors, and Enumerators. In all level of trainings, duration of training was five days. There were about 4,500 personnel who were trained in the census. So, management and smooth conduction of the training with uniformity for such large number was really a challenging part of census activities.

1.17.1. Master Training of Trainers

CBS conducted a workshop on master training of trainers for five days to a group of resource persons, mainly directors of CBS and Under-Secretaries of

NPC for conducting different layers of training and such group of persons was called as Master Trainer. The main objectives of this workshop were to prepare resource persons for conducting District Census Officers and Area Supervisors' training at center, Kathmandu, to clarify concept, definition and methodology used, to make consensus among resource persons concerning census related issues, and to manage required human resources for monitoring and supervision of census training activities as well as field enumeration conducted at district.

1.17.2. District Economic Census Officers' Training

District Economic Census Officers (DECO) were the key persons in successful census field operation within districts. They were responsible for overall management, supervision and enumeration works within their respective districts. Training was conducted in Kathmandu. The purposes of conducting training for DECO level were to clarify concept, definition and methodology used in NEC2018, make capable to conduct census field operation successfully, provide knowledge concerning census administration and financial management in the field, and give theoretical as well as practical knowledge about census questionnaires.

1.17.3. Area / Office Supervisors' Training

In each area of district, a supervisor was deputed and called as Area Supervisor. They had a role of office supervisor for supporting census office management. The purpose of conducting training for Area Supervisors were to clarify concept, definition and methodology used, make capable to support the DECO in conduction of census field operation, prepare resource person for training programs in district, provide knowledge concerning census administrative management in the field, and give theoretical as well as practical knowledge about census questionnaires.

1.17.4. Supervisors and Enumerators' Training

Training courses of Supervisors and enumerators were conducted in 77 districts by respective DCEO. The objectives of conducting training were to clarify concept, definition and methodology used, theoretical as well as practical knowledge about census questionnaires and other related form, duties of field personnel, and supervision methods (for supervisors only).

1.17.5. Data Editing, Coding and Entry Training

Training courses of data processing were carried out after the accomplishment of data collection phase at five centers namely Kathmandu, Kaski, Rupandehi, Nepalgunj, and Morang between August and September in 2018. As data processing was carried out in decentralized way, the officers

and staff to be involved in the data processing work were provided a three days training on data editing, coding and data entry. The training was made lively with hands on exercise in computers.

1.18. Field Operation

Census enumeration is the fundamental operation of the economic census. Establishments with fixed location were counted at the place of their operation. Both the listing (filling Form A) and the census enumeration (filling Form B) were undertaken simultaneously. Each respondent could select either interview or e-Census. Respondents who selected e-Census answered through the Internet by themselves (self-enumeration) until the due date. In Form A, the following information were collected during the census period: Name of Establishment and Address; Type of Business; Number of Persons Engaged; Opinion to self-enumeration via e-Census; and others. In Form B, the following information were collected: Area Information; Establishment Information; Registration at Government Agencies; Ownership Status; Characteristics of Manager and Owner; Business Operation; Tenure, Kind, and Area of Business Place; Number of Persons Engaged; Main Economic Activity; Head Office or not; Keeping Account Record or not; Average Monthly Revenues/Sales and Operating Expenses, Capital; Access for Credit; and others.

1.19. Data Processing: Data Editing and Coding, Data Entry

Data Processing refers to the activities of data editing, coding, data entry, consistency checking, tabulation activities of the census information. Editing means to correct data if there are any inconsistencies in the forms. Coding refers to putting a numeric number following statistical classification. Data entry means to enter the collected data in the database via software application. In National Economic Census 2018 of Nepal, data processing work namely data editing, coding and data entry was performed by the staff of statistics offices at Districts and CBS in Kathmandu. One of the outstanding features of the National Economic Census 2018 was that the data entry was completed within four months after the training courses were conducted.

In this census, Nepal Standard Industrial Classification (NSIC) 2018, prepared by the CBS following International Standard Industrial Classification (ISIC) Rev.4, was used to codify the economic activities of the

establishments. The data processing activity was intensively supervised in different tiers by the staff of CBS. The coding, editing and data entry activities were strongly supervised by the officers of respective district statistics office and CBS. The data entry application was designed using CPro 7.0 in such a way that entered data was transferred or uploaded directly to the central server at Kathmandu. It is important to mention that the entered data at districts were also verified at central by the designated officers to make the data flawless to the extent possible.

1.20. Preliminary Results

The preliminary results of the Census were released on 13 September 2018, and the dissemination seminar was held at CBS on the same day.

1.21. Final Results

The first release of the final results as National Report No. 1-1 on establishment and persons engaged by industry was released in 1 July 2019, and the dissemination seminar was also held in Kathmandu on the same day. National Report No. 1-2 by size of persons engaged and Provincial Summary Reports were released in 1 September 2019, and the dissemination seminar was also held in Kathmandu on the same day. National Report No. 1-3 by province and district was released in 2 January 2020. National Report No. 2-1 on sales, expenses, and profit and loss by industry was released on 5 May 2020. National Report No. 2-2 by size of persons engaged was released on 18 May 2020. National Report No. 2-3 by province and district was released on 1 June 2020. National Report No. 3-1 on salaries and wages by industry was released on 13 September 2020. National Profile No. 1 on cross-section tables was released on 29 June 2020. National Profile No. 2 on detailed tables was released on 13 September 2020. Analytical Report No. 1 on 18 industries was released on 30 July 2020. Analytical Report No. 2 on comparative analysis was released on 30 August 2020. Ward Profile on small area statistics was released on 27 August 2020. Other reports like National Report No. 3-3 and Analytical Report No. 3 will be published accordingly.

1.22. Reasons of the Variation between the Preliminary and Final results

The final results of the economic census are varied from the preliminary results in number of establishments and number of persons engaged. It was

occurred mainly due to the reason that in preparing the final results all census questionnaires were taken into account while in preparing the preliminary results, only records reported by enumerators on the control forms were used. There was a moderate difference in number of persons engaged. It happened due to the reason that some of the districts collected the number of general members of community organizations or cooperatives who were not active members or have not actively involved at least one third duration of the year. This reason raised the number of persons working in the establishment rather than the real situation. Hence, such flaws were eliminated during the data processing after having checked minutely.

1.23. Limitations

- a. It is worthful to mention that in addition to the economic activities carried out in the households, activities operated outside the household such as hawking, operating own rickshaw/push cart/van/easy bike/other transports, street vending etc. which are mobile with no fixed location for doing the business were excluded within the purview of the establishment based economic activities.
- b. As the economic census is based on the establishment approach (from demand side) and the Labour Force Survey is based on the household approach (from supply side), the results on number of persons engaged or employed persons may not match if comparison is made. The difference in the employed persons between these two statistical operations demands the further research to identify reason. Therefore, the findings of the Economic Census 2018 would not be fully comparable to that of other surveys as concepts, definition, and methods are different than those of other surveys.
- c. The establishments of the sectors Section-A (Agriculture, forestry and fisheries (unregistered)); Section-O (Public administration, defense and compulsory social security); Section-T (Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use) and Section-U (Activities of extraterritorial organizations and bodies) were not included in the scope of Economic Census 2018.
- d. Census data collection is often prone to diverse non-sampling errors due to its size. Post enumeration survey, conducted independently soon after the census enumeration, is one of the standard methods of calculating those errors. The post enumeration survey results are used for correcting the errors of the census. Although one of the most significant and indispensable part of any census is to conduct post enumeration survey to

validate the census data. This census is absent with post enumeration survey which could not conducted as it was the first economic census and due to the resource constraints. The second economic census 2023 will conduct the post enumeration survey to find coverage errors and contents errors.

- e. The census results will be published in phase-wise after having scrutiny check of the consistency of some of the information collected during census.
- f. Collection of information on the establishments is not generally record-based but based on oral information provided by the respondents. The factors like recall lapse and casual approach of respondents may lead to some non- sampling errors.
- g. The data collection was assigned to persons contracted to unemployed youth who were new to statistical data collection work.
- h. Although necessary measures were made against under-counting of establishments, data might be subject to some errors on account of such under-count, which is difficult to eliminate totally in a massive census operation.