location of the place of work should be coded to the smallest civil division in which the economic activity is performed in order to establish accurate commuter flows from the place of usual residence to the place of work.

2.349. It is likely that for some activities or jobs, performance is at more than one location (for example, at home some of the time/season and in a fixed location outside the home at other times) or the category cannot be clearly distinguished. One approach, in the case of the former, would be to select the place where the individual spends/spent a major part of his or her working time. Where the distinction between categories is blurred, as is the case for work done, for example, on a rented plot of land adjacent to one's home, it would be useful to identify borderline cases, according to national circumstances. Specific instructions should be given to the enumerators on how to select between two or three possible responses or to classify borderline cases.

8. Disability characteristics

2.350. A census can provide valuable information on disability and human functioning in a country. For countries that do not have regular special population-based disability surveys or disability modules in ongoing surveys, the census can be the only source of information on the frequency and distribution of disability and functioning in the population at national, regional and local levels. Countries that have a registration system providing regular data on persons with the most severe types of impairments may use the census to complement these data with information related to selected aspects of the broader concept of disability and functioning based on the International Classification of Functioning Disability and Health as described below. Census data can be utilized for general planning programmes and services (prevention and rehabilitation), monitoring selected aspects of disability trends in the country, evaluation of national programmes and services concerning the equalization of opportunities, and for international comparison of selected aspects of disability prevalence in countries.

(a) Disability status (core topic)

Recommended tabulations: 8.1-A, 8.2-A, 8.3-A

2.351. **Disability status** characterizes the population into those with and without a disability. The International Classification of Functioning, Disability and Health defines disability as "an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)." For the purpose of determining disability status using census data, persons with disabilities are defined as those persons who are at greater risk than the general population for experiencing restrictions in performing specific tasks or participating in role activities. This group would include persons who experience limitations in basic activity functioning, such as walking or hearing, even if such limitations were ameliorated by the use of assistive devices, a supportive environment or plentiful resources. Such persons may not experience limitations in the specifically measured tasks, such as bathing or dressing, or participation activities, such as working or going to church, because the necessary adaptations have been made at the person or environmental levels. These persons would still, however, be considered to be at greater risk for restrictions in activities and/or participation than the general population because of the presence of limitations in basic activity functioning and because the absence of the current level of accommodation would jeopardize their current levels of participation.

2.352. It is recommended that the following four domains be considered essential in determining disability status in a way that can be reasonably measured using a census and that would be appropriate for international comparison:

(a) Walking;
(b) Seeing;
(c) Hearing;
(d) Cognition.

A comprehensive measure would include all domains (see para. 2.367). Two other domains, self care and communication, have been identified for inclusion, if possible. Another domain that should be considered for inclusion is upper body functioning.

(b) Disability framework and terminology

2.353. In 2001 the World Health Organization (WHO) issued the International Classification of Functioning, Disability and Health (ICF)[160] which is the successor of the International Classification of Impairments, Disabilities and Handicaps (ICIDH), issued in 1980.[161] ICF is a classification system offering a conceptual framework with terminology and definitions of the terms, and classifications of the contextual

[160] Geneva, World Health Organization, 2001.
[161] Geneva, World Health Organization, 1980.

components associated with disability including both participation and environmental factors.

2.354. ICF distinguishes multiple dimensions that can be used to monitor the situation of individuals with disability. The system is divided into two parts each with two components;

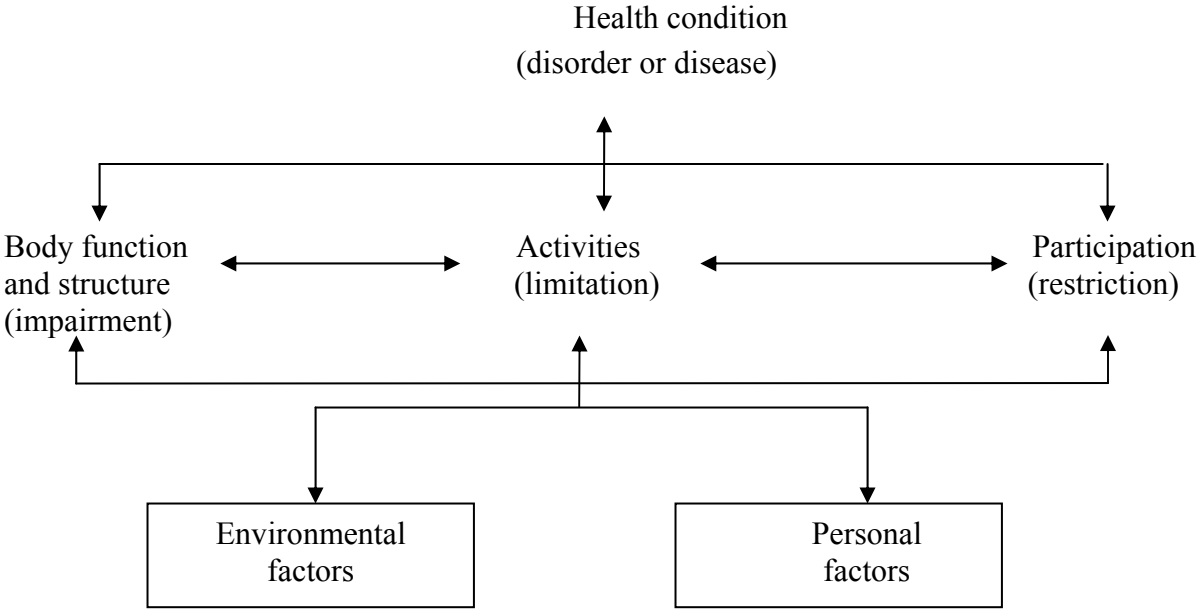
(1.0) Functioning and disability, which include the components:
(1.1) Body functions and body structures (impairments)
(1.2) Activities (limitations) and participation (restrictions)
(2.0) Contextual factors which include the components:
(2.1) Environmental factors
(2.2) Personal factors

2.355. ICF provides classification schemes for all these elements except for personal factors.

(i) Interactions between components of the International Classification of Functioning, Disability and Health

2.356. The interactions between the parts and components of ICF are shown in figure 6 below.

Figure
6. Interactions between the components of ICF



2.357. The main structure of the classification is reported in annex 1.

(ii) *Use of the census to measure disability at the aggregate level*

2.358. A census format offers only limited space and time for questions on any one topic such as disability. Since ICF offers several dimensions for use to develop a census measure, it is best to focus on a few of those dimensions, leaving the remaining dimensions for use in more extensive household surveys. Short sets of disability questions, which can be included in censuses and extended sets to be recommended for inclusion in population-based surveys are being developed and tested.[162] The aim of the recommended sets is to improve comparability of disability and functioning data across countries.

2.359. The World Programme of Action concerning Disabled Persons[163] provides a valuable guide for conceptualizing the uses of data on disability. The three major goals of the World Programme of Action are equalization of opportunities, rehabilitation and prevention.

2.360. Three major classes of purposes for measuring disability in a census are:

(a) To provide services, including the development of specific programs and policies for service provision and the evaluation of these programs and services. The provision of services at the population level includes, but is not limited to, addressing needs for housing, transportation, assistive technology, vocational or educational rehabilitation, and long-term care;

(b) To monitor the level of functioning in the population. Monitoring levels of functioning includes estimating rates and analyzing trends. The level of functioning in the population is considered a primary health and social indicator, which characterizes the status of the population in a society;

(c) To assess equalization of opportunities. The assessment of equalization of opportunity involves monitoring and evaluating outcomes of anti-discrimination laws and policies, and service and rehabilitation programmes designed to improve and equalize the participation of persons with disabilities in all aspects of life.

2.361. The intent of these purposes for measurement is consistent with that of the World Programme of Action, which outlines major goals for policy formulation and programme planning, internationally. The common goal is to promote the participation of persons with disabilities in all aspects of life by preventing the onset and consequences of

[162] The Washington Group on Disability Statistics, a United Nations city group which focuses on proposing international measures of disability is developing these questions. See www.cdc.gov/nchs/citygroup.htm for updates on the questions.

[163] The World Programme of Action concerning Disabled Persons was adopted by the United Nations General Assembly at its 37th regular session on 3 December 1982, by its resolution 37/52.

impairments, promoting optimal levels of functioning and equalizing opportunities for participation.

2.362. The assessment of equalization of opportunity is the purpose that can be best achieved in a census. It is this assessment that is the focus of the topic of disability status.

2.363. The definition outlined in disability status (see para. 2.351) requires that disability be defined in terms of limitations in basic activity functioning, and not by performance of or participation in the organized activities (such as educational attendance or work participation) While assessment of equalization of opportunities might seem to require measurement of activities and participation, such an approach does not help to identify changes in the level of participation in the population in response to changes in opportunities. It only reflects the circumstances of those who because of unfriendly environments or lack of assistive devices are experiencing restrictions in participation. Approaching the assessment of equalization of opportunity by recognizing the link between a basic level of activity and subsequent participation can reduce some of the methodological problems.

2.364. Disentangling the conceptual dimensions of basic activity limitations from the more complex activities associated with participation provides the opportunity to determine the intervening mechanisms that facilitate or interfere with performance of tasks and organized activity. At the analysis stage, people who are identified with and without disabilities on the basis of their ability to perform basic activities can be compared in relation to their participation in organized activities (such as school and work). This comparison can assess the level of equalization of opportunities. The separation between activities and performance differentiates approaches for the purpose of monitoring functioning in the population and for the purpose of assessing equalization of opportunity. When assessing opportunity equalization, the connection between the conceptual elements is made during analysis, whereas for monitoring functioning the connection is done during data collection.

2.365. Within the framework of the ICF model and its four major dimensions (body structure and function, activity, participation and environment), an activity-oriented set of questions, located at the simplest and most basic level, should be used to capture the basic activity elements required for comparison and analysis. This will also provide a good measure for analysis in conjunction with data on participation restrictions.

2.366. Given the sensitivity and the complexity of disability and functioning, it is recommended that, rather than enquire about a general disability status, several activity domains be identified where people can be asked about their ability to perform in such domains.

(iii) *Essential domains*

2.367. The set of domains should capture the definition of disability that is being operationalized. It is suggested that only those domains that have satisfied a set of selection criteria be eligible for inclusion in a short set of questions recommended for use

in censuses. Criteria for inclusion include cross-population or cross-cultural comparability, suitability for self-reporting and space on the census form. Other suggested criteria include the importance of the domain in terms of public health problems. Based on these criteria, four basic domains are considered to be essential: the areas of walking, seeing, hearing and cognition. If space permits, two other domains have been identified for inclusion, self-care and communication.

2.368. *Walking* fulfils the criteria of cross-cultural applicability and space requirements for comparable data since walking is a good indicator of a central physical function and is a major cause of limitation in participation. It is also a basic area of activity functioning that can be self-reported.

2.369. While *seeing* also represents a public health problem, self-reporting of seeing limitation is more problematic, particularly when individuals use glasses to correct visual impairments. Similar difficulties are associated with asking about *hearing* activity. The most direct way to deal with assistive devices like glasses and hearing aids without contributing to confusion over answering such questions is to ask the questions about difficulty hearing or seeing without any devices or assistance.

2.370. However, devices, such as glasses, provide almost complete accommodation for large proportions of those with impaired functioning and the numbers with the impairment can be very high. It is often argued that asking about seeing without the use of glasses greatly increases the number of persons with disabilities and makes the group too heterogeneous, that is, the group would include persons at very little risk of participation problems along with those at great risk. An alternative is to ask questions on difficulty seeing even with the use of glasses if they are usually worn and difficulty hearing with the use of hearing aids if these devices are used.

2.371. Of the four essential domains*, cognition* is the most difficult to operationalize. Cognition includes many functions such as remembering, concentrating, decision-making, understanding spoken and written language, finding one's way or following a map, doing mathematical calculations, reading and thinking. Deciding on a cross-culturally similar function that would represent even one aspect of cognition is difficult. However, remembering and concentrating or making decisions would probably serve the cultural compatibility aspects the best. Reading and doing mathematical calculations or other learned capacities are very dependent on educational systems within a culture.

(iv) *Additional domains*

2.372. There are additional physical functioning domains that could be included in a set of census questions depending on the space available, such as upper body functioning of the arms, hands and fingers. Another domain that could be incorporated is psychological functioning. While identifying problems with psychological functioning in the population is a very important element of measuring disability for the stated objective, questions that attempt to represent mental/psychological functioning would run into difficulty because of the levels of stigmatization of such problems within a culture. This could jeopardize the whole set of questions.

(v) Census questions

2.373. It is recommended that special attention be paid in designing census questions to measure disability. The wording and the construct of questions greatly affect the precision in identifying people with disabilities. Each domain should be asked through a separate question.[164] The language used should be clear, unambiguous and simple. Negative terms should always be avoided. The disability questions should be addressed to each single household member and general questions on the presence of persons with disabilities in the household should be avoided. If necessary, a proxy respondent can be used to report for the family member who is incapacitated. The important thing is to account for each family member individually rather than ask a blanket question. Scaled response categories can also improve the reporting of disability.

2.374. The information that results from measuring disability status (see para. 2.351) is expected to:

(a) Represent a large proportion, but not all persons with limitation in basic activity functioning in any one country (only the use of a wider set of domains would potentially cover close to all such persons, but as stated this would not be possible in a census context);

(b) Represent the most commonly occurring basic activity limitations within any country;

(c) Capture persons with similar problems across countries.

2.375. The questions identify the population with limitations in basic activities that have the potential to limit independent participation in society. The intended use of these data would be to compare levels of participation in employment, education, or family life for those with disability as measured by the question set versus those without disability to see if persons with disability have achieved social inclusion. In addition, the data could be used to monitor prevalence trends for persons with limitations in the particular basic activity domains selected. It would not represent the total population with limitations nor would it necessarily represent the 'true' population with disability, which would require measuring limitation in all domains.

2.376. Because disability is a complex concept, it is necessary to adopt an explicit definition based on the ICF domains used when developing census or survey questions that will be used to identify disability status. The recommended set of questions for censuses is based on such an explicit definition (as described above). It is essential that estimates or tabulations based on the recommended set be accompanied by information on how disability is defined and how the questions are asked. This information should be

[164] When domains are combined, such as asking a question about seeing or hearing, respondents frequently are confused and think they need to have difficulty in both domains in order to answer yes. In addition, having the numbers with specific limitations is useful for both internal planning and for cross-national comparisons.

included as part of the metadata associated with the questions and data set and it should be included as a footnote to tables that include these estimates.

(c) Use of census to screen for disability and follow-up with other surveys

2.377. Countries that are planning specialized surveys on disability may want to use the census to develop a sampling frame for these surveys and include a screening instrument to identify persons who will be interviewed subsequently. The definitions and the instruments used for this purpose are very different from the ones used to assess equal opportunities. The main purpose of a screening is to be the most inclusive as possible in order to identify the largest group of people who could be further studied. The screening question should be designed so that false negatives[165] are minimized, while false positives[166] should be less of a concern.

2.378. Within the framework of ICF, the census screening may include all of the three main dimensions of body structure and function, activity, and participation. This will allow for keeping a broad approach to the follow-up survey where the different aspects of disability can be better studied.

2.379. The same recommendations highlighted in paragraphs 2.373-2.376 should also be considered when a screening module is designed.

2.380. Before embarking on using the census to develop a frame for a follow-up survey, it is important that the legal implications of using the census data for this purpose are fully considered. Respondents should be informed that the data may be used for follow-up studies and national authorities responsible for ensuring the privacy rights of the population may need to be consulted in order to obtain their approval.

9. Agriculture

(a) Introduction

2.381. In this chapter two non-core topics on agriculture are presented. These two alternative topics could be considered by countries that would like to collect in the population and housing census information that would facilitate the preparation of the frame of agricultural holdings in the household sector, for a subsequent agricultural census (see also para. 1.44-1.50).

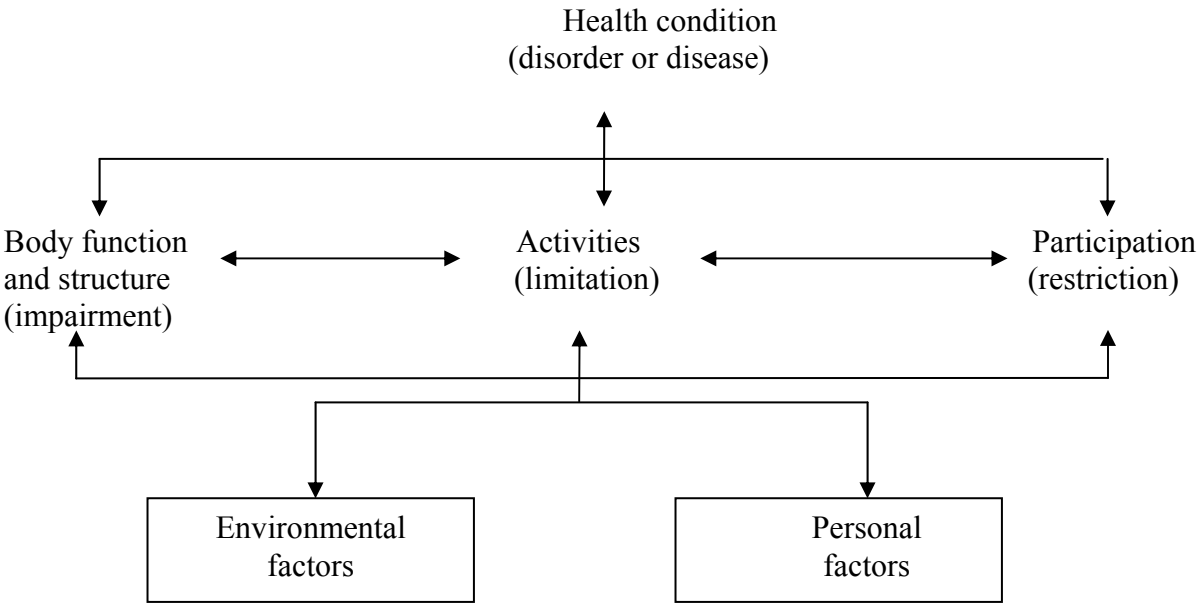
2.382. With the first topic, at the household level, information is collected on whether any member of the household is engaged in own-account agricultural production activities at their place of usual residence or elsewhere. With the second topic, at the individual person level, information is collected to identify persons involved in agricultural activities during a longer period, such as a year.

[165] Persons who have disabilities but are not identified in the census as having disabilities.
[166] Persons who are identified with disabilities in the census but in reality do not have disabilities (as assessed in the largest instrument used in the follow-up survey).

International Classification of Functioning, Disability and Health model

Interactions between components of the International Classification of Functioning, Disability and Health

The interactions between the parts and components are reflected in the following model:



Main concepts, terms and definitions

The main concepts, terms and definitions of the ICF are:

Body functions	are the physiological functions of body systems (including psychological functions).
Body structures	are anatomical parts of the body such as organs, limbs and their components.
Impairments	are problems in body function or structure such as a significant deviation or loss.
Activity	is the execution of a task or action by an individual.
Activity limitations	are difficulties an individual may have in executing activities.
Participation	is involvement in a life situation.
Participation restrictions	are problems an individual may experience in involvement in life situations.
Functioning	is the umbrella term for body function, structure, activity and participation.

Disability	is the umbrella term for impairment, activity limitation and participation restriction.
Environmental factors	make up the physical, social and attitudinal environment in which people live and conduct their life.
Personal factors	are the particular background of an individual's life and living and comprise features of the individual that are not part of a health condition or health states, such as gender, race, age, fitness, lifestyle habits, coping styles, social background, education, profession, and so forth. ICF does not include a classification of personal factors.
Contextual factors	represent the complete background of an individual's life and living including two components, being environmental factors and personal factors which may have an impact on the individual with a health condition and that individual's health and health-related states.

The content of ICF is illustrated by the first-level or parent categories (chapter headings) of each of the classifications included in ICF.

Body functions:

1 Mental functions
2 Sensory functions and pain
3 Voice and speech functions
4 Functions of the cardiovascular, haematological, immunological and respiratory systems
5 Functions of digestive, metabolic and endocrine systems
6 Genitoury and reproductive functions
7 Neuromusculoskeletal and movement-related structures
8 Functions of the skin and related structures

Body structures:

1 Structures of the nervous system
2 The eye, ear and related structures
3 Structures involved in voice and speech
4 Structures of the cardiovascular, immunological and respiratory systems
5 Structures related to the digestive, metabolic and endocrine systems
6 Structures related to the genitourinary and reproductive systems
7 Structures related to movement
8 Skin and related structures

Activity and participation:[1]

[1] At the time the revision process of the ICIDH was in a final stage it seemed to be possible to distinguish activity and participation at the level of definitions. However it was not possible to reach agreement about the related classifications. For this reason there is one classification for activity and participation (domains) with four suggestions on how to use this in an activity or participation mode.

.

1 Learning and applying knowledge
2 General tasks and demands
3 Communication
4 Mobility
5 Self-care
6 Domestic life
7 Interpersonal interactions and relationships
8 Major life areas (such as education, work and employment, economic life)
9 Community, social and civic life

Environmental factors

1 Products and technology
2 Natural environment and human-made changes to environment
3 Support and relationships
4 Attitudes
5 Services, systems and policies

Personal factors are mentioned as important factors but are not classified in ICF. For health conditions (disorder, disease, injuries and congenital causes of disability) reference is made to the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10)[2] and the International Classification of External Causes of Injury (ICECI).[3]

In order to specify the functioning and disability situation of a person, qualifiers are available to indicate the extent and level of functioning/disability and the environmental factors as being facilitators or barriers. The advantage of the ICF is the broad spectrum offered from the body function/structure (impairment) point of view up to the participation one including the influence of environmental factors. It is recommended to use this broad spectrum as often as possible.

[2] http://www.who.int/classifications/icd/en/.
[3] http://www.who.int/classifications/icd/adaptations/iceci/en/index.html.