



Ulaanbaatar 2017



EMPLOYMENT IN THE ENVIRONMENTAL SECTOR AND GREEN JOBS IN MONGOLIA

(PILOT STUDY)





EMPLOYMENT IN THE ENVIRONMENTAL SECTOR AND GREEN JOBS

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This pilot study has been conducted with technical assistance from International Labour organization in the framework of Partnership for Action on Green Economy (PAGE).

Contents

Foreword	7
1. Background	8
2. Objectives of the survey	10
3. Executive summary	10
4. Concepts and definitions	13
5. Organisation of the surveys	18
5.1. Questionnaire design	18
5.2. Sampling design.....	21
5.2.1. Labour force survey	21
5.2.2. Enterprise survey	21
5.3. Fieldwork	22
5.3.1. Labour force survey	22
5.3.2. Enterprise survey	22
5.4. Data processing.....	22
5.4.1. Labour force survey.....	22
5.4.2. Enterprise survey	22
5.5. Limitations of the surveys	23
6. Main findings of the surveys	24
6.1. Labour force survey results	24
6.1.1. Employment in production of environmental outputs and Environmentally friendly processes	24
6.1.2. Employment in the environmental sector.....	32
6.1.3. Green jobs.....	34
6.2. Enterprise survey results, 2014.....	38
6.2.1. Enterprises and employment in production of environmental Outputs and environmentally friendly processes.....	38
6.2.2. Decent work and green jobs	41
6.2.3. Perceptions and expectations of enterprises	42
7. Findings and recommendations	45
Annex 1. List of tables	55
Annex 2. Questionnaire form for lfs	68
Annex 3. Questionnaire form for enterprise survey	70



List of figures

Figure 1.	Employment in the environmental sector and green jobs in Mongolia, second quarter of 2016, thous.persons	11
Figure 2.	Schema to identify the green jobs in environmental sector	17
Figure 3.	Main questions of the survey	19
Figure 4.	Additional questions included in the enterprise module.....	20
Figure 5.	Employment in production of environmental outputs, by category of environmental goods and services, (%).....	25
Figure 6.	Employment in environmentally friendly processes, by category of environmental goods and services, by quarters (%).....	26
Figure 7.	Employment in production of environmental outputs and environmentally friendly processes, by the amount of working time spent on the production and processes (%)	27
Figure 8.	Employment in production of environmental outputs and processes, as percentage of total employment, by main economic activity (%).....	28
Figure 9.	Employment in production of environmental outputs and environmentally friendly processes, as percentage of total employment, by occupation (%)	29
Figure 10.	Employment in production of environmental outputs and environmentally friendly processes, by status in employment (%)	30
Figure 11.	Employment in production of environmental outputs and environmentally friendly processes, as percentage of total employment, by status in employment (%).....	30
Figure 12.	Employment in production of environmental outputs and environmentally friendly processes, as a percentage of total employment, by level of education (%)	31
Figure 13.	Employment in production of environmental sector, by age (%)	32
Figure 14.	Employment in environmental sector, Q2 of 2016	33
Figure 15.	Weekly wage distribution	33
Figure 16.	Employment in environmental sector, by status in employment	34
Figure 17.	Paid employees in environmental sector, by social security coverage, thous. persons	35
Figure 18.	Paid employees in environmental sector, by level of earnings, thous. persons	36
Figure 19.	Green jobs, by sex and age group, second quarter of 2016, (%).....	37
Figure 20.	Green jobs, by education level and occupation and quarters, (%)	37
Figure 21.	Green jobs, by main economic activity and quarters, (%)	38
Figure 22.	Enterprises involved in production of environmental outputs and environmentally friendly processes	38
Figure 23.	Enterprises involved in production of environmental outputs	39



Figure 23.	Enterprises involved in production of environmental outputs	39
Figure 24.	Share of enterprises using environmentally friendly processes to total number of enterprises covered in the survey	39
Figure 25.	Enterprises involved in production of environmental outputs and environmentally friendly processes, by main economic activity, (%).....	40
Figure 26.	Enterprises involved in environmental sector	41
Figure 27.	Share of number of enterprises and green jobs to total, by main economic activity, percentage	42
Figure 28.	Perceptions and expectations in environmental sector, (% of enterprises)	42
Figure 29.	Perceptions and expectations in environmental sector, (% of enterprises).....	43
Figure 30.	Obstacles faced in implementing “green” practices (% of enterprises)	43

LIST OF TABLES

Table 1.	Employment in environmental sector, by percentage (Labour force survey 2014-2016)	12
Table 2.	Employment in environmental sector, by percentage (Enterprise survey, 2014).....	12
Table 3.	The employment status of the population aged 15 and over, by sex, thous.persons	24
Table 4.	Employment involved in production and services of environmental sector and environmentally friendly processes, thous.persons	25

LIST OF TABLES IN APPENDIX 1

Table 1a.	Employment in production of environmental outputs, by category of environmental goods and services	52
Table 1b.	Employment in environmentally friendly processes, by categories of environmental goods and services	52
Table 2a.	Employment in production of environmental outputs, by working time spent on the production of the environmental goods and services	53
Table 2b.	Employment in environmentally friendly processes, by working time spent on the environmentally friendly processes	53
Table 3a.	Employment in production of environmental outputs, by main economic activity	54
Table 3b.	Employment in environmentally friendly processes, by main economic activity	54
Table 4a.	Employment in production of environmental outputs, by occupational category	55



Table 4b.	Employment in environmentally friendly processes, by occupational category	56
Table 5a.	Employment in production of environmental outputs, by employment status	57
Table 5b.	Employment in environmentally friendly processes, by employment status	58
Table 6.	Employment in environmental sector, by status in employment.....	59
Table 7.	Paid employees in environmental sector, by social security coverage.....	59
Table 8.	Green jobs, by age group.....	60
Table 9.	Green jobs, by occupational category.....	60
Table 10.	Green jobs, by level of education.....	61
Table 11.	Green jobs, by main economic activity.....	61
Table 12.	Enterprises in the environmental sector, by main economic activity	62
Table 13.	Enterprises active in the environmental sectors, by type of environmental activity	63
Table 14.	Enterprises in the production of environmental goods and services, by main economic activity.....	64
Table 15.	Enterprises involved in environmentally friendly processes, by main economic activity.....	65
Table 16.	Enterprises involved in production of environmental outputs and environmentally friendly processes, by main economic activity	66
Table 17.	Enterprises involved in environmentally friendly processes, by occupation (for those spending more than 50% of their time on environmentally friendly processes)	67
Table 18.	Perceptions and expectations	67



ABBREVIATIONS

LFS	Labour force survey
ILO	International Labour Organization
ICLS	International Conference of Labour Statisticians
NSO	The National statistical office
PAGE	Partnership for Action on Green Economy
CFC	Chlorofluorocarbon-
CsPro	Census and Survey Processing System
SPSS	Statistical Package for the Social Sciences
UNIDO	The United nations industrial development organization
UNEP	The United nations environment programme
UNITAR	The United nations Institute for Training and Research



FOREWORD



For the purpose for collecting the data determining the employment in environmental sector and green jobs, testing the international methods and methodologies, exploring the possibilities of determining Green jobs in Mongolia and promoting the implementation of Green development policy in Mongolia, National Statistics Office of Mongolia conducted the pilot survey on determining Green jobs, one of main factors for measuring transition towards which determines the demand of green labour market accurately.

By the results from this pilot study, trends of employment in environmental sector can be illustrated by economic activities and sectors, occupations, employment status, age groups and gender.

The pilot study on Green job has conducted in fourth quarter of 2014, first and second quarters of 2016, with assistance from International Labour Organization in the framework of Partnership for Action on Green Economy.

This report has 7 chapters and integrated result tables in Annexes. In chapters from 1 to 4, objectives for determining the employment in environmental sector and green jobs, executive summary and definitions and terms of green jobs are shown. Survey design, survey frame, data source, data collection and processings are explained in chapter 5. In chapters 6 and 7, main results, findings and recommendations of surveys based on households and enterprises are listed.

My appreciation to Erdenesan E., director of Economics Statistics Department, Oyunbileg D., senior statistician of Economics Statistics Department, and Valentina Stoevska, statistician in International Labour Organization for producing this report.

ҮНДЭСНИЙ СТАТИСТИКИЙН
ХОРООНЫ ДАРГА

A handwritten signature in black ink, appearing to read 'A. Ariunzaya'.

A.АРИУНЗАЯА



1. BACKGROUND

During United Nations conference “Rio+20”, the Green economy is declared as main engine for achieving sustainable development and poverty eradication in declaration “The Future We Want”. United Nations called on to supporting interested countries for their transition to greener and more inclusive economies. In response to this call for action and meet the growing demands from countries seeking to develop and implement national green economy strategies, the UNEP, ILO, UNIDO and UNITAR created the Partnership for Action on Green Economy (PAGE).

Mongolia supported Green economy and Green development as that drives sustainability through building a more inclusive green economy and joined Partnership for Action on Green Economy (PAGE) in 2013.

Mongolian Parliament approved the National Green Development Policy in June 2014 with purpose of transitioning towards inclusive Green economy. One of the strategic objectives of the Mongolian Green Development Policy is “Promoting green jobs”.

The guidelines developed by the International Labour Organization used as main reference source for estimating the number of jobs in environmental sector from quantitative and qualitative perspective. For the practical application of concepts and definitions of employment of environmental sector and green jobs of this guideline, a number of countries have participated in pilot programmes designed to test concepts and definitions presented in the guidelines and new data collection methodologies.

The purpose of the pilot program aimed to determine the methodology to collect data of environmental sector employment and green jobs. Two module questions are developed and attached to the regular Labour Force Survey (LFS) and establishment survey of National Statistics Office of Mongolia for data collection of the pilot survey that reflected specific features of Mongolia. Modules are following;

- a) An additional module for the regular Labour Force Survey as basis on household;
- b) An additional module for the regular survey of establishments.

The census and survey data are the main source of the labour statistics of Mongolia. Of which:

- Population and housing census
- Labour force survey
- Survey for average wage of employment
- Monthly report on registered unemployment

Censuses and survey indicates labour statistics based on census and survey data, though, they do not include any information about environmental sector employment and green jobs.

In that regard, National Statistical Office of Mongolia (NSO) selected as one of the pilot countries conducted the pilot survey to collect data on environmental sector employment and green jobs, and to investigate the possibility of determining the green



jobs in Mongolia with technical assistance support from ILO in the framework of support from PAGE (Partnership for Action on Green Economy), which provide services that enable countries to transition towards green economies.

NSO conducted survey on employment of environmental sector and green jobs by attaching questionnaire modules with a set of questions into fourth quarter of 2014 regular labour force survey and regular annual enterprise survey of first and second quarter of 2016.

In other words, data on employment in the environmental sector collected from employed persons through labour force survey and from enterprises through enterprises survey.

As a consultant to this approach, Valentina Stoevska, Statistician of Statistics Division, ILO, provided her valuable contribution to the development of the questionnaire, analysing the results, drafting and preparing this report.

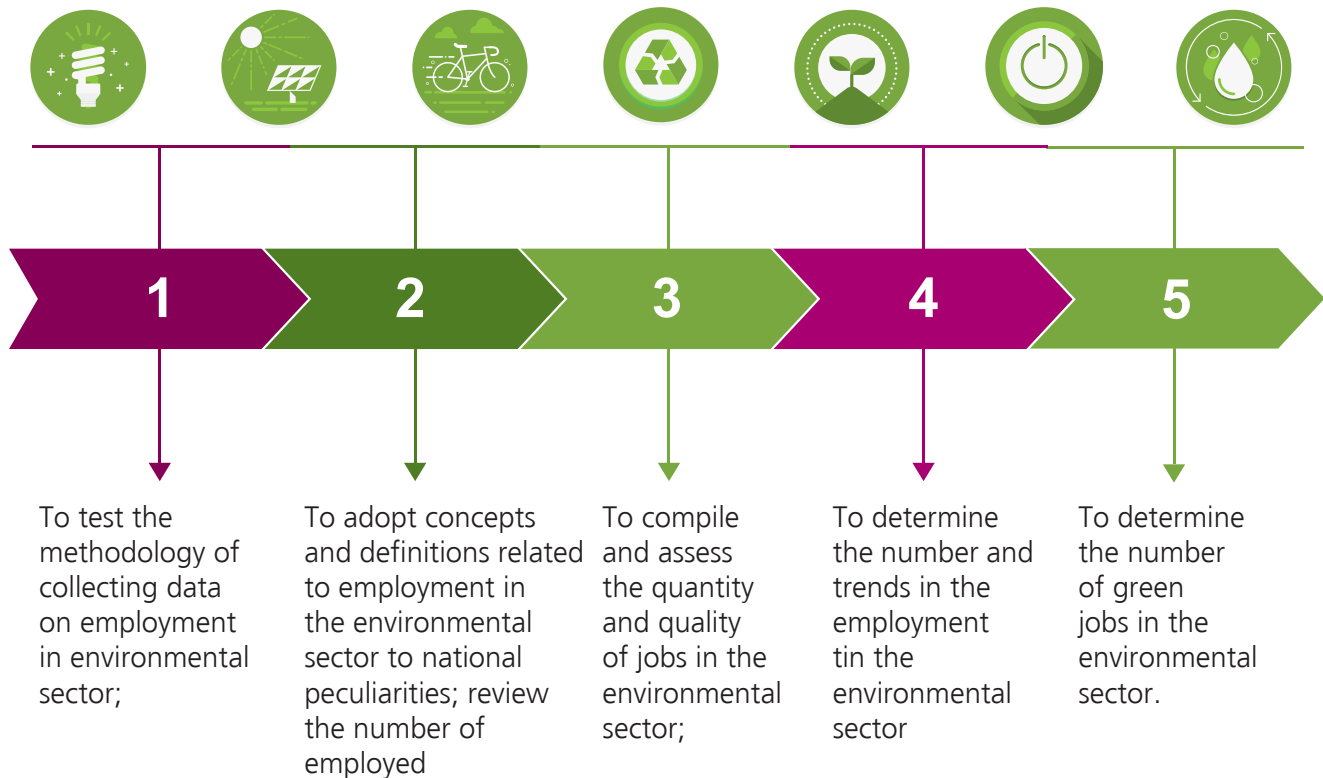
This report covers survey development, questionnaire design, concepts and definitions, data collection method, as well as analysis of the result of employment in the environmental sector and green jobs.



2. OBJECTIVES OF THE SURVEY

Objectives:

This survey project has following objectives



3. EXECUTIVE SUMMARY

A need for accurate measurement of green labour market demand, one of the important factors for identifying the green economy process, is increasing. In that regard, NSO is presenting the results of pilot survey on environmental sector employment in line with international methodology, which is vital to developing statistics for green economy plan and policy.

Following analysis is based on data collected in questionnaires attached to the regular labour force survey of fourth quarter of 2014 and annual enterprise survey of 1st and second quarter of 2016.

Survey results shows quarterly employment on the green economy, by economic activities, occupation, employment status, age group, sex and aimags of Mongolia.

This survey, also, enables the opportunity for dynamic analysis by collecting data at sub sectors of environmental sector; including employments of economic activities of environmental sector or employments in renewable energy, and creating database with dynamical numbers of employments.

FIGURE 1. EMPLOYMENT IN THE ENVIRONMENTAL SECTOR AND GREEN JOBS IN MONGOLIA, second quarter 2016, thous.persons

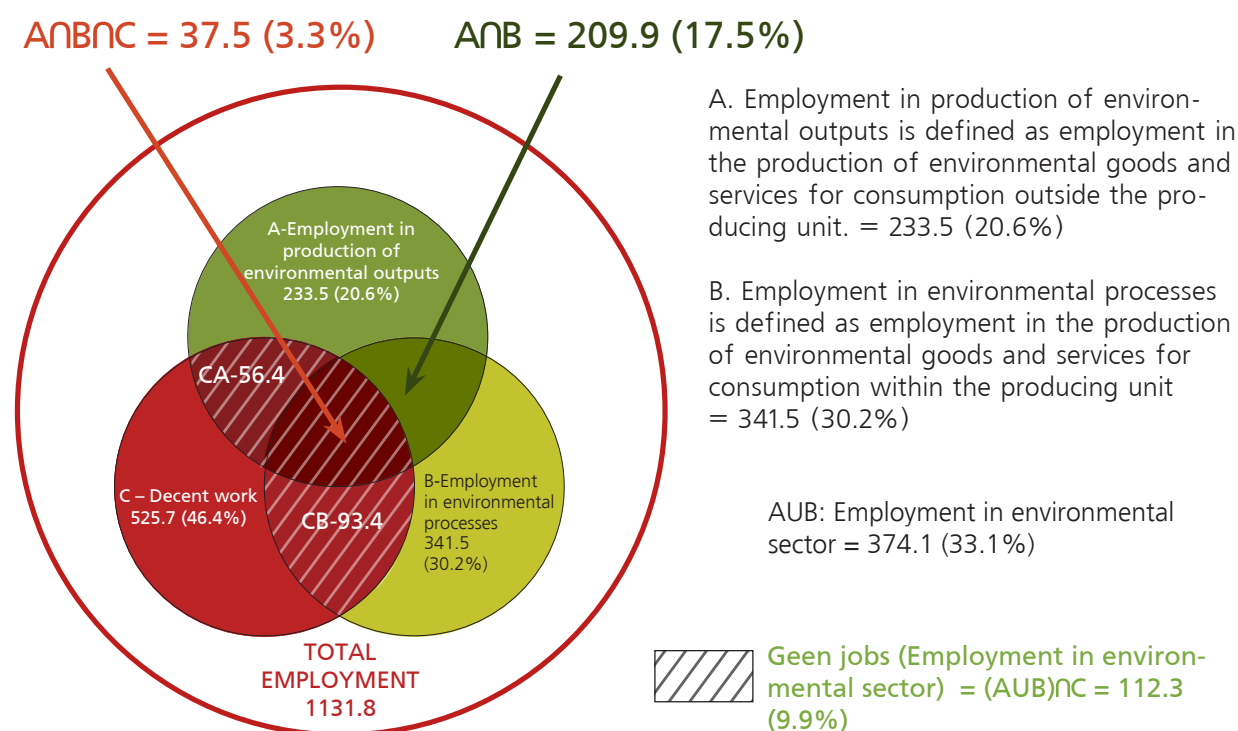


Figure 1 shows number of jobs in the environmental sector and green jobs in the Mongolia as well as the number of jobs that are decent, in accordance with statistical definition.

Employment in production of environmental outputs is shown by dark green ($A=233.5$ thous.persons in second quarter of 2016), employment in environmentally friendly processes as light green ($B=341.5$ thous.persons in in second quarter of 2016), and decent jobs as red ($C=525.7$ thous.persons in second quarter of 2016). While, green jobs is marked as dashed area in the centre of the diagram ($(A \cup B) \cap C=112.3$ thous. persons).

The number of decent and green jobs presented in Figure 1 is determined only for paid employees. Out of 374.1 thous.jobs in the environmental sector in 2nd quarter of 2016, 112.3 thous. jobs are considered as being green because they are covered by social security schemes. This means that 9.9 percent of all jobs in Mongolia in 2nd quarter of 2016 were environmentally friendly and decent.

Decency of the jobs can also be determined on the basis of adequacy of earnings³ as suggested at the ILO Manual "DECENT WORK INDICATORS GUIDELINES FOR PRODUCERS AND USERS OF STATISTICAL AND LEGAL FRAMEWORK INDICATORS " presented to the 19th International Conference of Labour Statisticians. If adequate earning are taken as criteria, then out of 374.1 thousand employed in the environmental sector, 196.8 thousand are considered as being green because they pay decent wages. This means that 17.4 percent of all jobs in Mongolia in 2nd quarter of 2016 were environmentally friendly and decent.

³ Estimated by using 2/3 of the median monthly earnings as defined in the ILO Manual "DECENT WORK INDICATORS GUIDELINES FOR PRODUCERS AND USERS OF STATISTICAL AND LEGAL FRAMEWORK INDICATORS " available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_229374.pdf

In Mongolia, 33.1 percent (374.1 thous.persons in in second quarter of 2016) of all employed spends at least part of their working time on the production of environmental goods and/or services or using environmentally friendly processes and/or technologies. However, the percentage of employed who spent most of their working time on production of environmental goods and services is much smaller. More specifically, 1.5 - 4.6 percent of all employed have spent more than 50 percentage of their work time actively involved in production of environmental goods and services or using environmentally friendly processes in the periods unvariegated.

TABLE 1. EMPLOYMENT IN ENVIRONMENTAL SECTOR, by percentage (Labour force survey 2014-2016)

	2014-IV	2016-I	2016-II
Total employed	100.0	100.0	100.0
Involved in production of environmental goods and/or services	19.9	20.7	20.6
Spend more than 50 percentage of their work time	4.6	3.5	2.8
Involved in environmentally friendly processes and/or technologies	25.0	31.4	30.2
Spend more than 50 percentage of their work time	3.5	1.5	1.7

TABLE 2. EMPLOYMENT IN ENVIRONMENTAL SECTOR, by percentage (Enterprise survey, 2014)

	Percent
Total employed	100.0
Involved in production of environmental goods and/or services	28.6
Spend more than 50 percentage of their work time	5.9
Involved in environmentally friendly processes and/or technologies	37.1
Spend more than 50 percentage of their work time	0.4

Large share of workers engaged in the environmental sector are specialized in agriculture, forestry and fishery. In 2014, 69.9 percent of all employed in the environmental sector were engaged in agriculture, 73.4 percent and 69.3 percent in first and second quarter of 2016, correspondently.

Share of herders and employed in animal husbandry in the environmental sector is much higher than their share in total employment (53.7- 63.1 percent of all workers employed in the environmental sector while 25.4-27.1 percent of all workers were in livestock sector for 2014 to 2016).

There was a significant difference in share of employed in environmental sector between capital and aimags. Although about 40 percent of all jobs were located in Ulaanbaatar, only 10 percent of all jobs in as environmental sector are located in the capital. Survey result indicates that majority of jobs in the environmental sector are in aimags of central region.

From the survey results, most of workers in green jobs have higher education while two third of all workers has primary education. In environmental sector employment, male with primary education is dominant. Share of female workers in environmental



sector is much lower compared the share of women workers in labor force; 4 out 10 workers in environmental sector is women.

Environmental sector workers' monthly average wage was 567.2 thous.tug in second quarter of 2016, which was 12.2 thous.tug lower than overall monthly average wage of all paid workers. From this, employees in environmental sector has lower wage compared to overall workers.

4. CONCEPTS AND DEFINITIONS

For the definitions of green jobs, terms and definition of ILO are used. The followings are concepts and definitions of green jobs.

Environmental sector

It consists of all economic units that carry out environmental activities.

The environmental activities

Environmental activities are defined as those economic activities whose primary purpose is **to reduce or eliminate pressures on the environment** or to **make more efficient use of** natural resources.

Environmental protection activities

Activities are defined which primary purpose is the prevention, reduction and elimination of pollution and other forms of degradation of the environment. These activities include, but are not limited to:

- the prevention, reduction or treatment of waste and wastewater;
- the prevention, reduction or elimination of air emissions;
- the treatment and disposal of contaminated soil and groundwater;
- the prevention or reduction of noise and vibration levels;
- the protection of biodiversity and landscapes, including their ecological functions;
- monitoring of the quality of the natural environment (air, water, soil, groundwater);
- research and development on environmental protection; and
- the general administration, training and teaching activities oriented towards environmental protection.

Environmental goods and services

These are defined as goods and services produced by an economic unit for the purposes of preventing, reducing and eliminating pollution and any other degradation of the environment and preserving and maintaining the stock of natural resources and hence safeguarding against depletion. The types of environmental goods and services are as follow:



- a) **Environmental specific services** comprise environmental protection and resource management specific services produced by economic units for sale or own-use.
- b) **Environmental sole-purpose products** are goods (durable or non-durable goods) or services directly serve for an environmental protection or resource management purpose, which have no use except for environmental protection or resource management. Examples of these products include catalytic converters, septic tanks (including maintenance services), and the installation of renewable energy production technologies (e.g. installation of solar panels).
- c) **Environmental adapted goods** are goods that have been specifically modified to be more “environmentally friendly” or “cleaner” so that it is more beneficial for environmental protection or resource management. Adapted goods are either:
 - **“Cleaner” goods** that help to prevent pollution or environmental degradation. Because, equivalent normal goods are goods that provide a similar utility except for the impact on the environment, such as mercury-free batteries and cars or buses with lower air emissions.
 - **“Resource efficient” goods:** Goods and products which help to prevent natural resource depletion. They contain less natural resources in the production stage (for example, recycled paper and renewable energy, heat from heat pumps and solar panels); and/or in the stage of use (for example, resource efficient appliances, water-saving devices such as tap filters).
- d) **Environmental technologies** are technical processes, installations and equipment (goods), and methods or knowledge (services) which technical nature or purpose is environmental protection or resource management.
 - **End-of-pipe (pollution treatment) technologies**, defined as technical installations and equipment produced for measurement, control, treatment, and restoration/correction of pollution, environmental degradation, and/or resource depletion. Examples include plants to treat sewage, equipment to measure air pollution, and facilities for the containment of high-level radioactive waste.
 - **Integrated (pollution prevention) technologies** are defined as technical processes, methods or knowledge used in production processes that are less polluting and less resource intensive than the equivalent “normal” technology used by other producers. Their use is less environmentally harmful than relevant alternatives.



Resource management activities

Activities of which primary purpose is preserving and maintaining the stock of natural resource; reducing depletion. Following examples categorized in such activities;

- Production of goods and services of management or conservation of natural resources.
- Reduction of the withdrawals of natural resources (including through the recovery, reuse, recycling, and substitution of natural resources);
- restoration of natural resource stocks (increases or recharges of natural resource stocks); and
- overall management of natural resources (including monitoring, control, surveillance and data collection);

Environmentally friendly practices in agriculture

Activities are considered as environmentally friendly if environmentally friendly technologies and practices are used in activities as agriculture, fishery, and forestry. These include organic farming, No-Till cultivation, Push Pull Farming, long-term crop rotation, the long-term use of bio-char, use of crop and livestock landraces, improved post-harvest storage and handling practice, adoption of crop and livestock diversification strategies, sustainable forestry, sustainable farm management systems like agro forestry, and other practices that ensure that agricultural products are safe, of high quality, and produced in an environmentally and socially responsible way.

For agricultural production to be considered as organic the production (i) must be organic by intent and not by default (environmentally unfriendly production systems that do not use synthetic inputs are not considered organic), (ii) the produce must mainly be for sale, not for self-consumption.

Agricultural production is considered as organic if it relies on ecological processes, biodiversity, and cropping cycles that are adapted to local conditions and generally excludes or strictly limits the use of chemical fertilizers and pesticides.

Chemical fertilizers are fertilizers prepared from non-organic materials manufactured through an industrial process (e.g. sodium nitrate, superphosphates). It is considered organic, if organic fertilizers are used (these are prepared from processed plant or animal material and/or unprocessed mineral material such as lime, rock or phosphate);

Bio fertilizers are used (these are products containing living or dormant micro-organisms, such as bacteria fungi).



Persons employed in environmental sector

It comprises all persons who, during a set reference period, were employed in at least one economic unit that is involved in the production of green goods and services, and persons employed in activities that make the establishment's processes "greener" by reducing or eliminating pressures on the environment or making more efficient use of natural resources.

Employment in production of environmental outputs (A)

It is defined as employment in the production of environmental goods and services for consumption outside the producing unit.

Employment in environmentally friendly processes (B)

It is defined as employment in the environmentally friendly production of goods and services for consumption by the producing unit.

Decent jobs

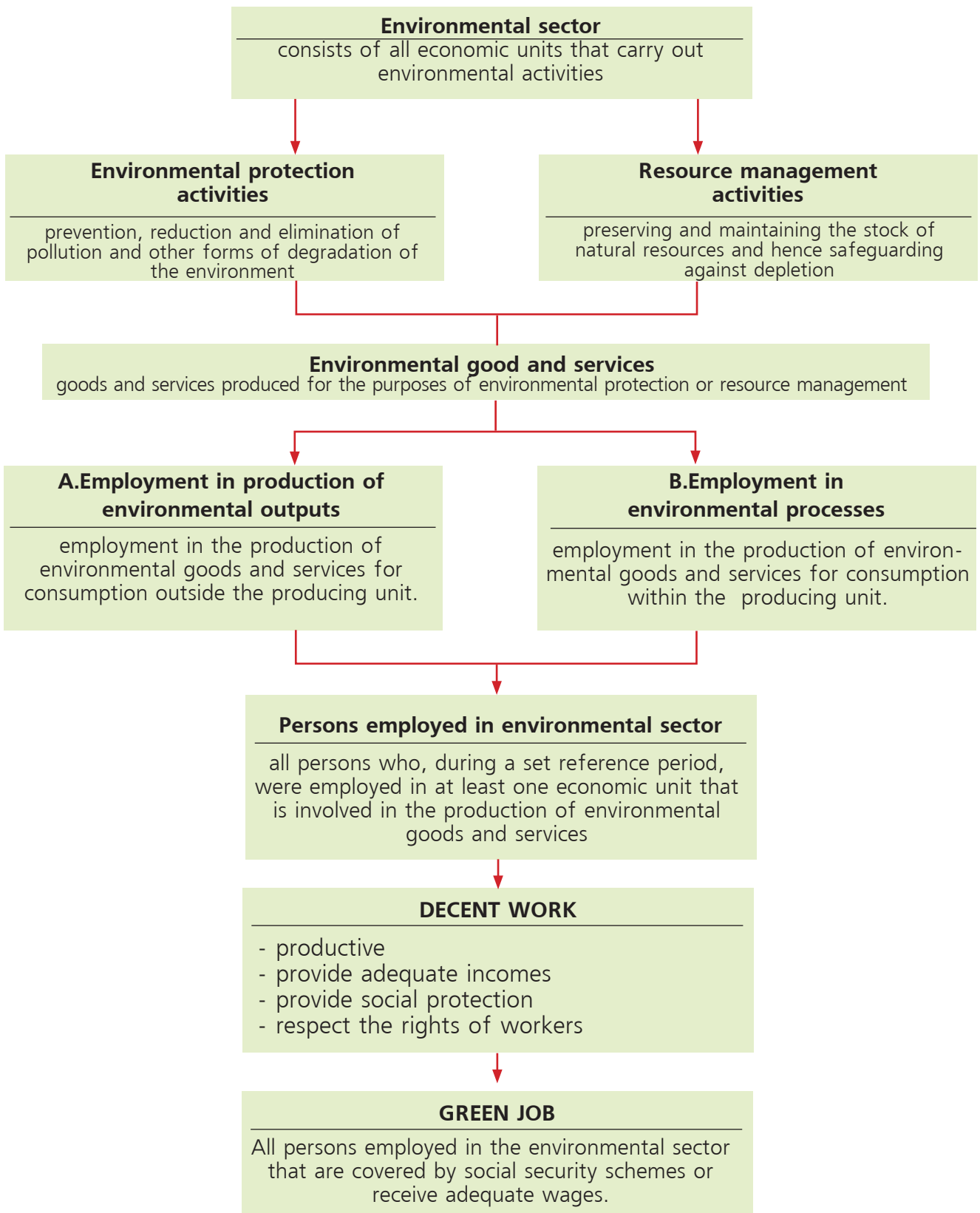
Decent jobs are jobs whose characteristics; are in line with the ten substantive elements of the ILO Framework on the Measurement of Decent Work: (i) employment opportunities; (ii) adequate earnings and productive work; (iii) decent working time; (iv) combining work, family and personal life; (v) work that should be abolished; (vi) stability and security of work; (vii) equal opportunity and treatment in employment; (viii) safe work environment; (ix) social security; and (x) social dialogue, employers' and workers' representation.

Green jobs

Green jobs are jobs in the environmental sector that meet the requirements of decent work (i.e. adequate wages, safe conditions, workers' rights, social dialogue and social protection).

The applicable scheme, concepts and definitions of green jobs are shown in Figure.2



FIGURE 2. SCHEMA TO IDENTIFY THE GREEN JOBS IN ENVIRONMENTAL SECTOR

5. ORGANISATION OF THE SURVEYS

5.1. Questionnaire Design

The survey module consists of 8 questions. Set of standard questions (Figure 3), in line with the survey purpose and definitions of employment in production of environmental outputs, employment in environmentally friendly processes, decent works, and green jobs (modules are in appendix 2), attached to the LFS and the enterprise survey. Questions are;

- Use and production of renewable energy, including its service and technology
- Use of energy efficient production, service, technology and practice
- Use of waste recycling production, service, technology and practice
- Use of production, service, technology and practices of pollution prevention or reduction to air and environment
- Use of production, service, technology and practice protecting environment and environmental resources
- Use of production, service, technology and practice of organic agricultural products
- Participation to public events, trainings and teachings to raise the awareness of environmental management rules, regulation and standards
- Technological investigation, planning, services and monitoring

In the questionnaire of enterprise survey, in addition to the standard questions, the following questions included as a second section (see Figure 4).

- Share of revenue in production of environmental goods and services to total revenue.
- Share of employed persons in production of environmental goods and services to total employed persons.
- Number of workers that spent more than half of their working time involved in environmental technologies and practices.
- Certification of the environmental management standards such as MNS-ISO14001.
- Whether there is a staff responsible for environmental issues?
- Implementation of environmental internal audit.
- Occupations and average monthly wages of the workers who spent more than half of their working time involved in environmental technologies and practices

Following quality information also collected:

- Demand for environmental goods and services
- Profitability of expansion on green technology investments in medium and longer term
- Obstacles faced in the way of implementing "green" practices
- Type of information needed to reduce or eliminate the creation or release of pollutants
- Workers knowledge over environment
- Prioritizing environmental sustainability by enterprise management
- Satisfaction on the concepts and definitions related to employment in environmental sector.



FIGURE 3. MAIN QUESTIONS OF THE SURVEY

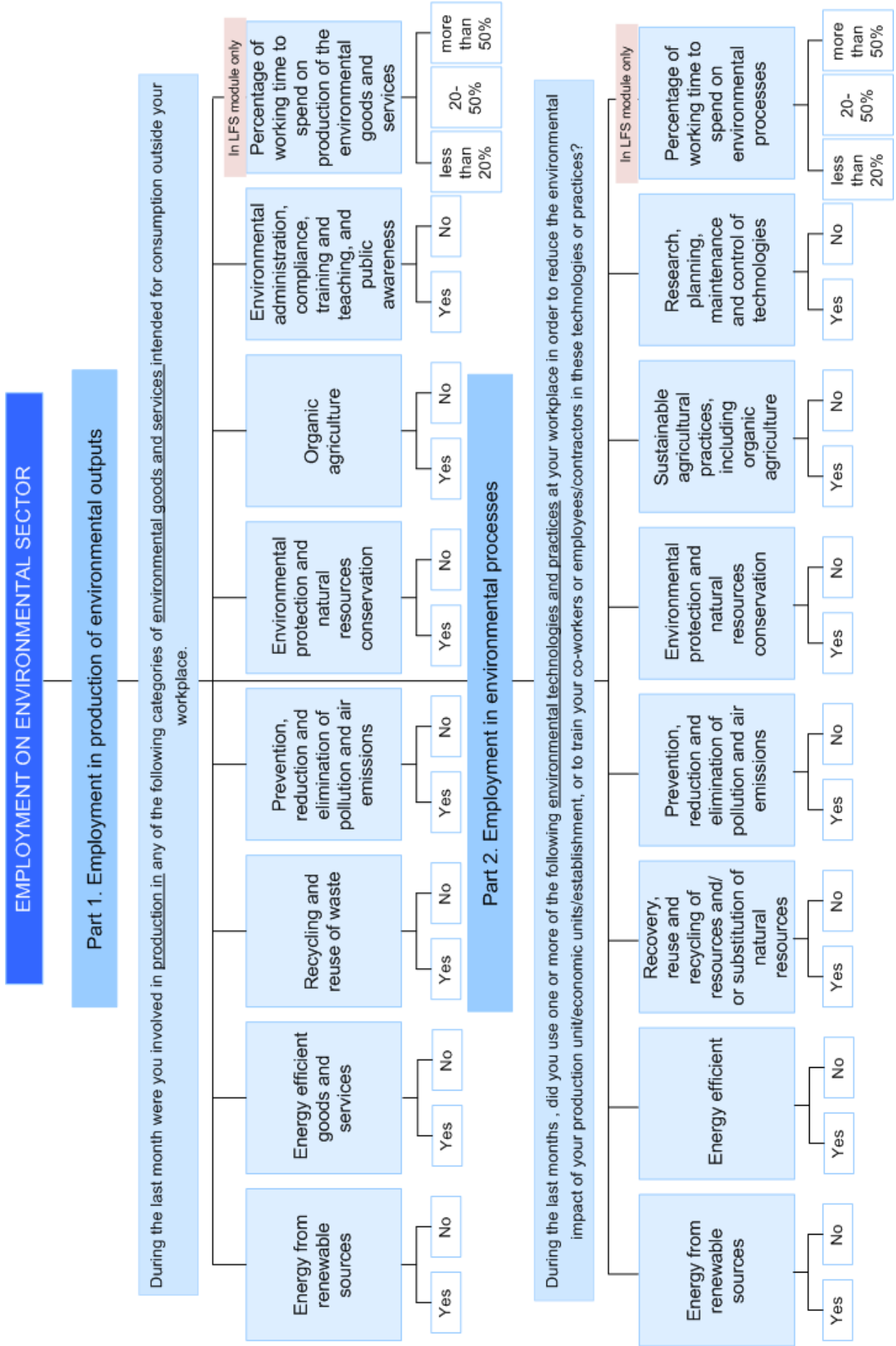
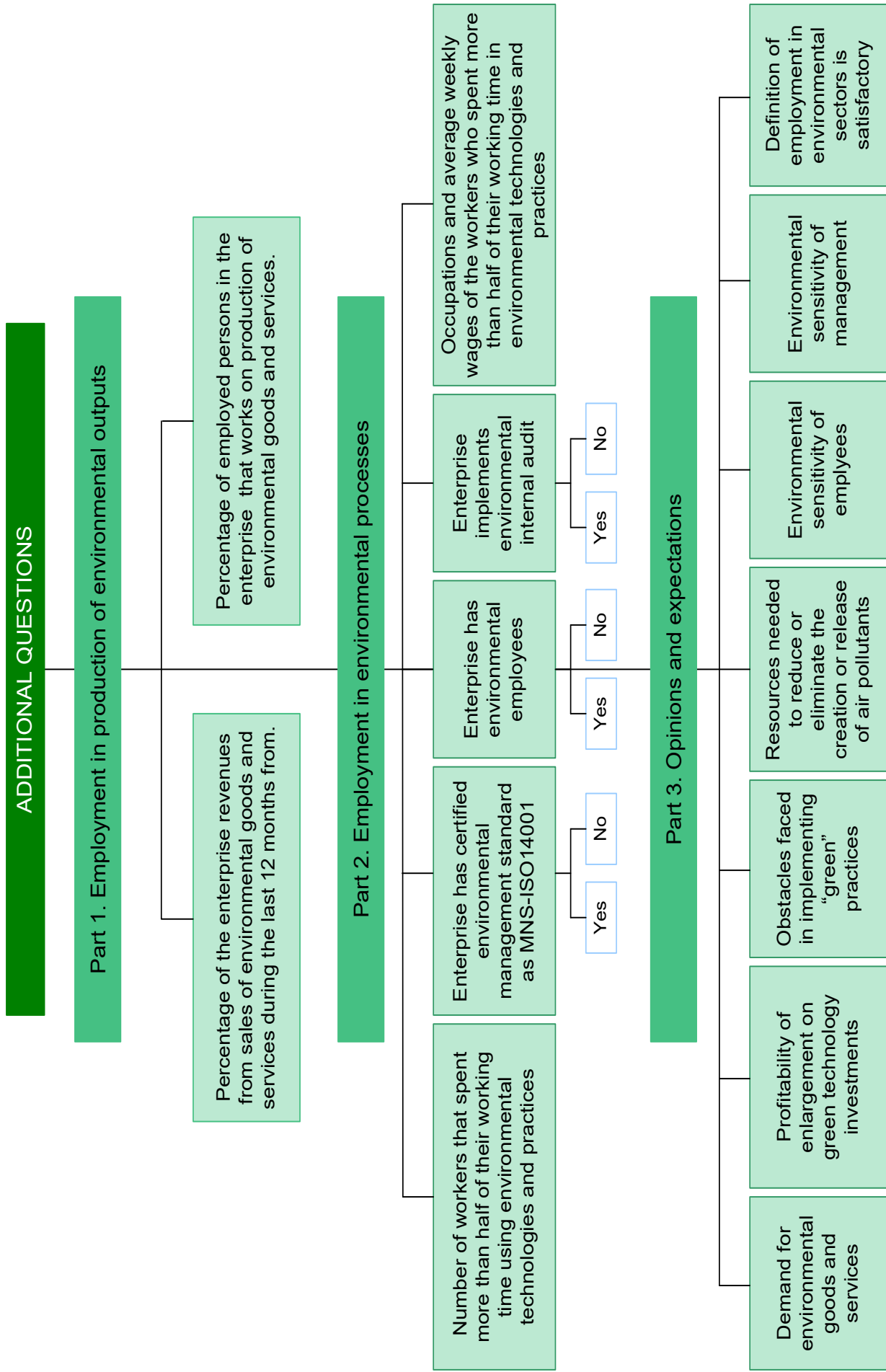


FIGURE 4. ADDITIONAL QUESTIONS INCLUDED IN THE ENTERPRISE MODULE



5.2. Sampling Design

5.2.1 Labour Force Survey³

As an additional module to the household based Labour Force Surveys of fourth quarter of 2014, first and second quarters of 2016, 9612 households covered in Green job survey.

The sampling design developed for the LFS is based on a stratified two-stage sampling procedure. The stratification is based on administrative units or aimags and the districts. The stratification allows production of key labour market indicators such as unemployment level at aimags and districts level. In case of Ulaanbaatar, districts are grouped in 8 strata (2 districts with few households were merged into one stratum). Each aimag (21 aimags in total) constitutes one stratum. Together with the 8 strata for the capital there are 29 strata in the survey. Within each strata primary selection units, soums and bags for aimags, khoroo and units for districts, were selected with probability proportional to size.

The ultimate sampling unit of the survey is household, defined as group of people who living together in a same accommodation and sharing joint budget, food and primary needs. Members of the household can either be related by marriage, siblings or not related at all. Generally, 3204 households sampled for every quarter. For the reliability and representative of sample, sampling error of survey estimate at the national level must lower than 5.0% and design effect is lower than 1.5%. Sampling frame is the all households of Mongolia, which includes information of whole population and household annual report.

5.2.2. Enterprise Survey

The sample for the Green Jobs module was designed to cover 6511 enterprises from 29.1 thousand enterprises sampled for the 2014 annual enterprise survey. The sampling frame is the business register, contains information for 56.3 thousand units, maintained by Statistics Mongolia.

The Green Jobs pilot survey covered 6511 enterprises which were selected with probability sampling method from enterprises to be covered in the annual enterprise survey of 2014 due to financial constraints.

The enterprises in banking and financial sector, private health sector, and government agencies, were not covered in the Green Jobs survey because these units have direct report system.

Sampling method: For the selection of the enterprises, the stratified simple random sampling method, one way to develop sampling design of economic survey, is used in the enterprises survey, since each stratum is a homogeneous group of units with similar characteristics. In the survey, the enterprises in the sampling frame are stratified by economic activity and income or number of employees.

³ Annual report of Labour Force Survey



5.3. Fieldwork

5.3.1. Labour Force Survey⁴

The 95 interviewers have visited the selected households and collected data from household members of over 15 year olds, by face-to-face interview. Survey data collected by tablets.

The software installed in tablets allowed interviewers to run validation tests and code; then upload the collected data to central server at headquarter of National Statistics Office of Mongolia using internet connection. Data received in server then checked by survey team leaders at the NSO (22 people).

During the fieldwork, the supervisors visited the selected households up to 3 times. Such efforts increased participation of households and improved quality of data collected. In this respect, "Assessment team", associated officers of NSO departments supervised by Chairman and Vice-chairman of NSO, has established. Its role was to monitor the progress of labour force survey, assess achievements, limitations and take action whenever needed.

5.3.2. Enterprise Survey

Staffs (148 people) of the statistics divisions/department of aimag, district and the capital have visited selected enterprises and collected data by face-to-face interview with managers, economists or accountants of the enterprises.

The data collected was checked (validated) against administrative data such as tax and financial balance sheet. In order to improve quality of data reported and the response rate the managers (director and senior officer) of the statistics divisions/department of aimags regularly monitored the outcomes of the survey.

5.4. Data Processing

5.4.1. Labour force survey

The central NSO handled the preparation of survey instruments (questionnaire and manual/instructions for interviewers) and data entry software, receiving the data and checking completeness of survey questionnaires, validating and assessing the quality of data received, processing and analysing of the data. Labour force survey teams at the statistics division in aimags and the capital city collected data by field interviews.

Two programs developed for the data processing: (i) CPro based data processing software for census and survey, for data entry, revision, modification and (ii) SPSS for processing, compilation, analysis, and tabulation of data.

5.4.2. Enterprise Survey

The technical instruction for capturing, cleaning, and editing of the survey data was developed, the application software was developed after entering enterprise data to the software, and uploaded to the NSO central server.

⁴ Annual report of Labour Force Survey



Statistics divisions/department of aimags, districts, and the capital city were responsible for capturing, cleaning, and editing of the survey data at their level. Relevant edits of the captured data were undertaken such as consistency of the indicators of questionnaire form, checking of the completeness of the questions, accuracy of the economic activities and number of employees.

The analysis of the survey completed by NSO jointly with an expert from ILO.

5.5. Limitations of the Surveys

The pilot surveys had two limitations that may affect the reliability of derived indicators. The first was representatively of samples of LFS. Survey frame did not cover all economic sectors. Coverage of the enterprise survey excluded banking and financial sector, private health sector, and government agencies. Since, LFS is based on households and do not cover the military barracks, dormitories, correction house, the temple and churches, temporary residents of dormitory and permanently homeless people. Subsequently, dormitories are not considered as permanent residence and it is difficult to cover those permanently homeless people in the survey. The second was comprehensiveness of the questions/definitions used in the modules, describing environmental and decent dimensions of jobs to respondents. Coded answers were resulted difficulties in checking.

In order to interpret the terminology and make the questions understandable, providing explanations for all the variables of the questionnaire needed and, for some questions, one or more illustrative examples about type of environmental activities and/or environmental goods and services given. There was also need to explain the technical language is understandable by enterprises and households. More often, assessment about the quality of jobs in the environmental sector was even more problematic.

Collecting reliable dynamic data with domains of economic activities, occupation and environment requires big budget. Moreover, seasonal effects can be reflected to the employment of the environmental sector. Thus, the survey on green job should be conducted on regular basis.



6. MAIN FINDINGS OF THE SURVEYS

6.1. LABOUR FORCE SURVEY RESULTS

The survey to determine green jobs conducted for the first time in fourth quarter of 2014 as an additional module of Labour force survey accordance with methodologies developed from International Labour Organization. By this survey, employment in environmental sector (engaged to the production of environmental goods and/or services or using environmentally friendly processes) and number of green jobs has derived.

Questionnaire for Green jobs in environmental sector added to Labour force survey and total three quarters of data compiled and presented by this report. In the survey, 32663 members of 9612 households covered and results presented separately for fourth quarter of 2014, first and second quarters of 2016, by weighting to population.

In fourth quarter of 2014, 1040.7 thousand people of total population aged over were employed, while 1089.3 thousand people and 1131.5 thousand people were employed in first and second quarters of 2016, respectively.

TABLE 3. THE EMPLOYMENT STATUS OF THE POPULATION AGED 15 AND OVER, by sex, thous.persons

Indicator	2014.IV		2016.I			2016.II			
		Male	Female		Male	Female		Male	Female
Total	1 870.2	889.3	980.9	2 054.0	974.2	1 079.7	2 098.0	1 013.5	1 084.5
Economically active	1 127.7	604.2	523.5	1 232.9	665.0	567.8	1 263.7	671.7	592.0
Employed	1 040.7	555.1	485.7	1 089.3	576.0	513.3	1 131.8	589.3	542.5
Unemployed	87.0	49.1	37.9	143.5	89.0	54.5	131.9	82.4	49.5
Economically inactive	742.5	285.1	457.4	821.1	309.2	511.9	834.3	341.8	492.5

6.1.1. Employment in production of environmental outputs and environmentally friendly processes

The results of survey of Green Job shows that 19.9 percent of all employed in fourth quarter of 2014, 20.7 percent of all employed in first quarter of 2016 and 20.6 percent of all employed in second quarter of 2016 were involved in the production of environmental outputs. While, 25.0 percent of all employed in fourth quarter of 2014, 31.4 percent and 30.2 percent for first and second quarters of 2016 were involved in environmentally friendly processes (Table 4).

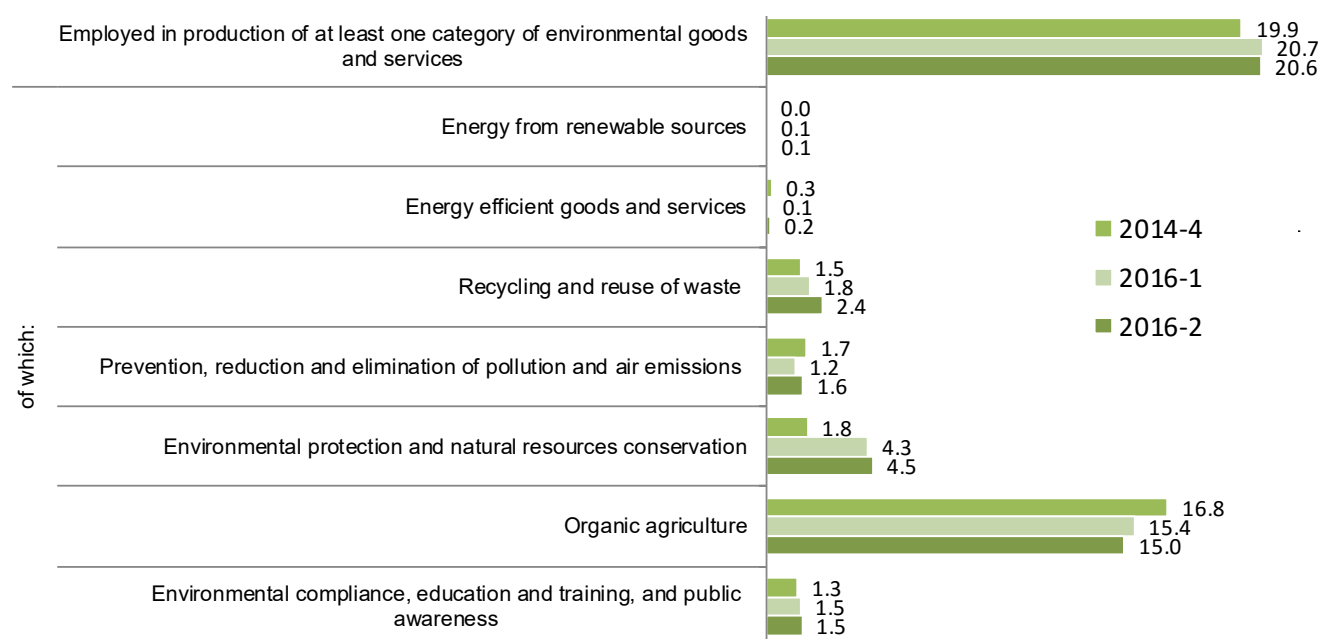
In second quarter of 2016, number of employment involved in the production and services of environmental sector reached to 233.5 thousand people, increased by 13.0 percent and 3.6 percent from fourth quarter of 2014 and second quarter of 2016, respectively. Whereas, number of employment involved in environmentally friendly processes reached 341.5 thousand people, increased by 31.2 percent and 0.2 percent from fourth quarter of 2014 and first quarter of 2016, respectively.



TABLE 4. Employment involved in production and services of environmental sector and environmentally friendly processes, thous.persons

Indicator	2014.IV	2016.I	2016.II	$\frac{2016.II}{2014.IV}$	$\frac{2016.II}{2016.I}$
Total employed	1 040.7	1 089.3	1 131.8	108.8	103.9
Involved in production and service of environmental sector	206.7	225.5	233.5	113.0	103,5
Involved in environmentally friendly processes	260.3	342.1	341.5	131.4	99.8

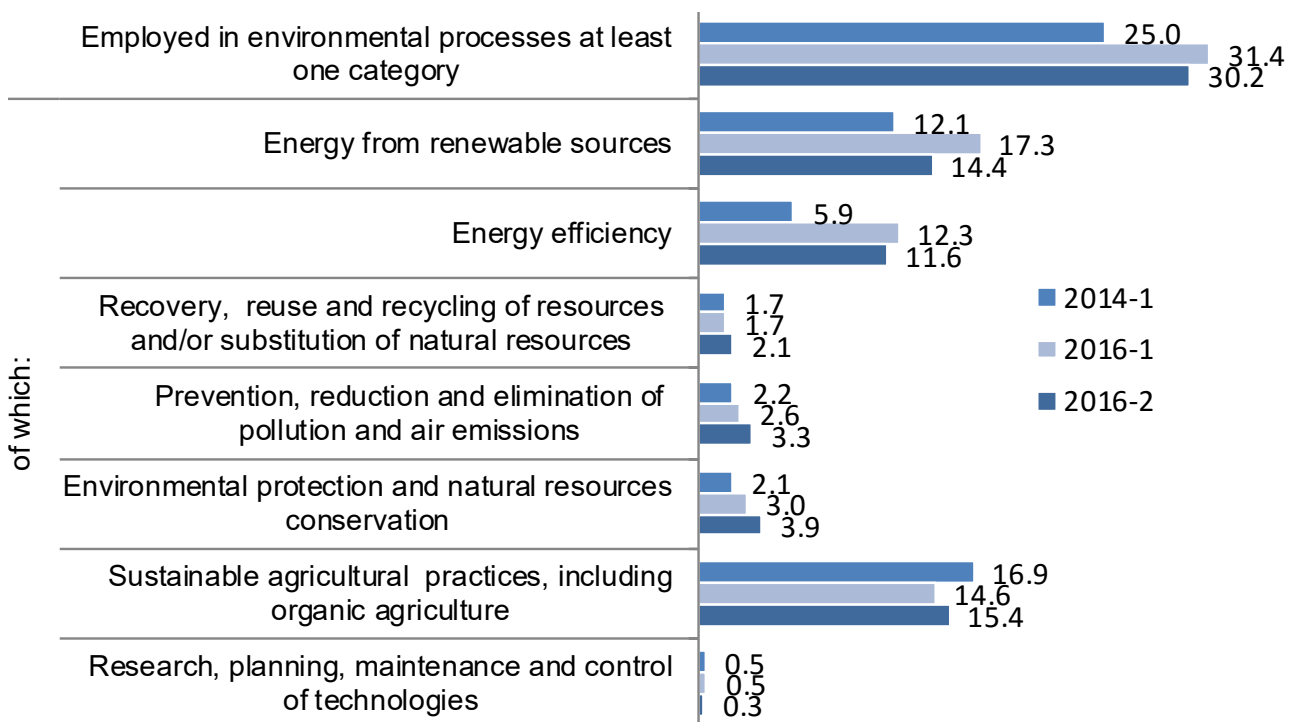
Employment in production of environmental outputs and environmental processes, by category of environmental goods and services: 19.9 of all employed are involved in production of at least one category of environmental goods and services and environmentally friendly processes in fourth quarter of 2014, 20.7 and 20.6 percent in first and second quarters of 2016, respectively. 25.0 percent of all employed are engaged in activities of at least one category of environmentally friendly processes in fourth quarter of 2014, 31.4 and 30.2 percent's in first and second quarter of 2016, correspondingly. Organic agriculture absorbs the majority of employed in production of environmental outputs, with of all employed. Men tend to be overrepresented in all categories of environmental goods and services except in category "environmental compliance, education and training, and public awareness".

FIGURE 5. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by category of environmental goods and services, (%)

Moreover, 72.5 percent of all workers engaged in production of environmental goods and services or on environmentally friendly processes at least part of their work time in second quarters of 2016 and 51.1 percent of all workers in engaged in organic agriculture or sustainable agricultural practices at least part of their work time in second quarters of 2016.

The 30.2 percent of all workers involved in environmentally friendly processes at least in one category in 2014 and 2016. Sustainable agricultural practices including organic agriculture engages the majority of employed in environmentally friendly processes (Figure 6).

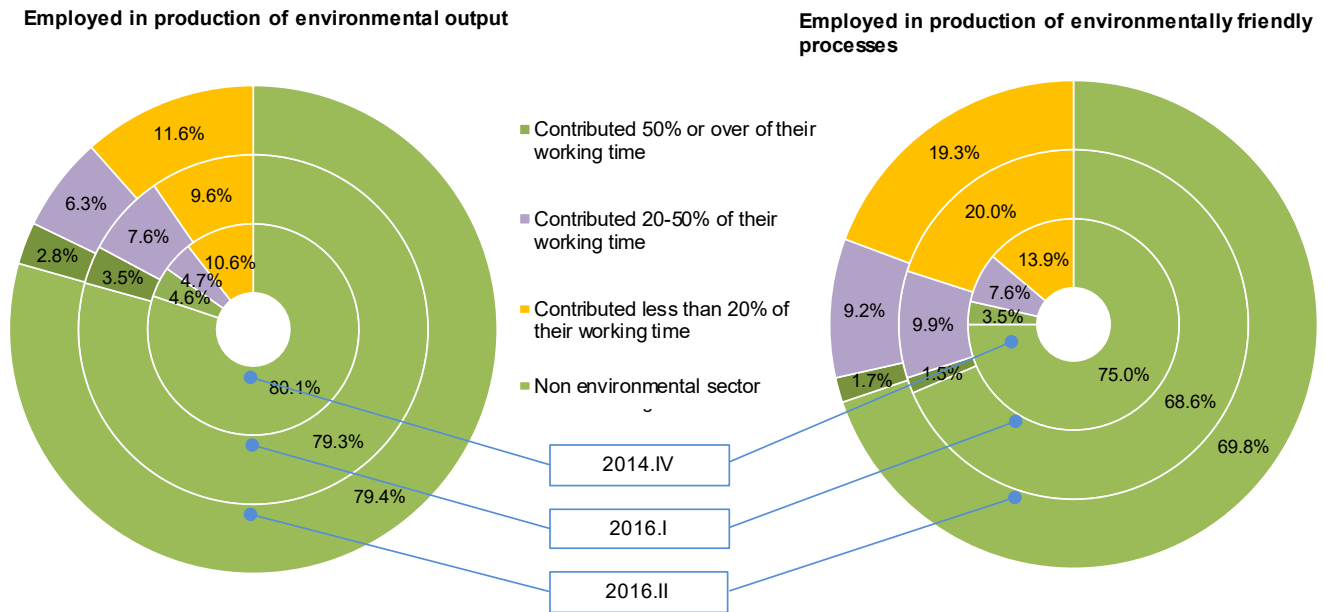
FIGURE 6. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by category of environmental goods and services, by quarters (%)



Employment in production of environmental outputs and environmental processes, by working time involved in production of environmental goods and services and processes: Over 70 percent of all employed involved in production of environmental goods and services and environmentally friendly processes spend almost half of their working time actively involved in production of environmental goods and services or processes. 13.5 percent of workers involved in production of environmental good and services used green technology and practices in their activities and 5.5 of them percent spent over half of their working time used in green technology and practices in their activities in second quarter of 2016.

Part of their work time is spent on tasks and duties related to production of environmental goods, processes and technologies while the rest of the work involves non-environmental processes and technologies (Figure 7).

FIGURE 7. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, by the amount of working time spent on the production and processes (%)

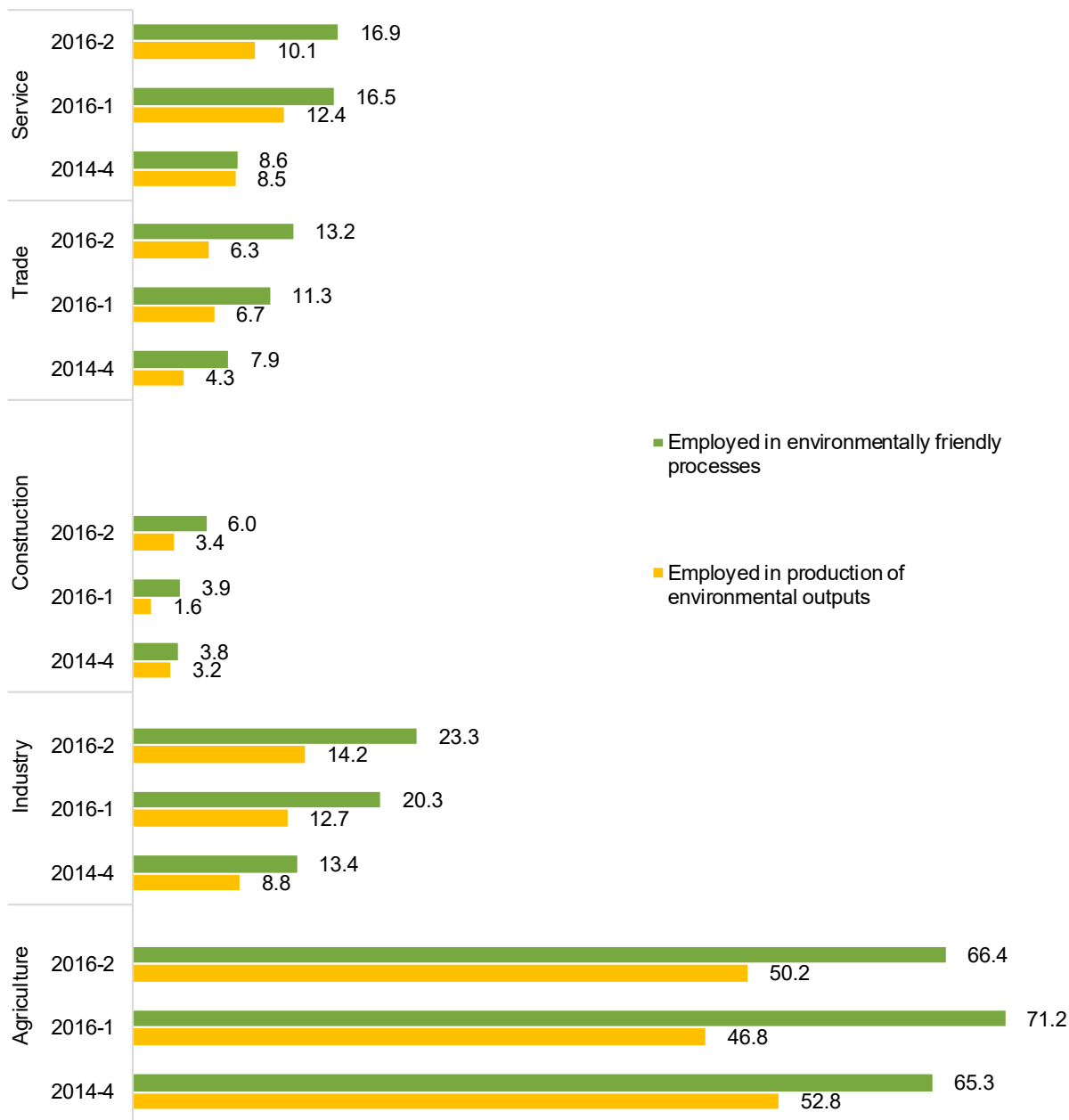


Employment in production of environmental outputs and environmentally friendly processes, by main economic activity: Almost all employed in economic activity “Water supply, sewerage, waste management and remediation activities” spend at least some time on production of green goods and services or on environmentally friendly processes. In “Agriculture, forestry and fishing” more than 50.0 percent of all employed spend at least some time on production of environmental goods and services or on environmentally friendly processes. In other activities the percentage of employed who are engaged in production of environmental outputs or processes does not exceed 20.0 percent, in most economic activities (Figure 8).

Out of all workers that spend at least part of their work time on production of environmental outputs, 76.0 percent are in agricultural sector, 6.7 percent are in education sector and 0.1-2.7 percent are in other sectors in 2014, respectively. Whereas, 66.5 and 67.5 percent of workers are belongs to agriculture sector in first and second quarters of 2016.

However, out of all workers that spend at least part of their work time on environmentally friendly processes, 61.0 percent were in agricultural sector in second quarter of 2016, 6.5 percent are in education sector, 0.1-4.5 percent are in other sectors.

FIGURE 8. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND PROCESSES, as percentage of total employment, by main economic activity (%)



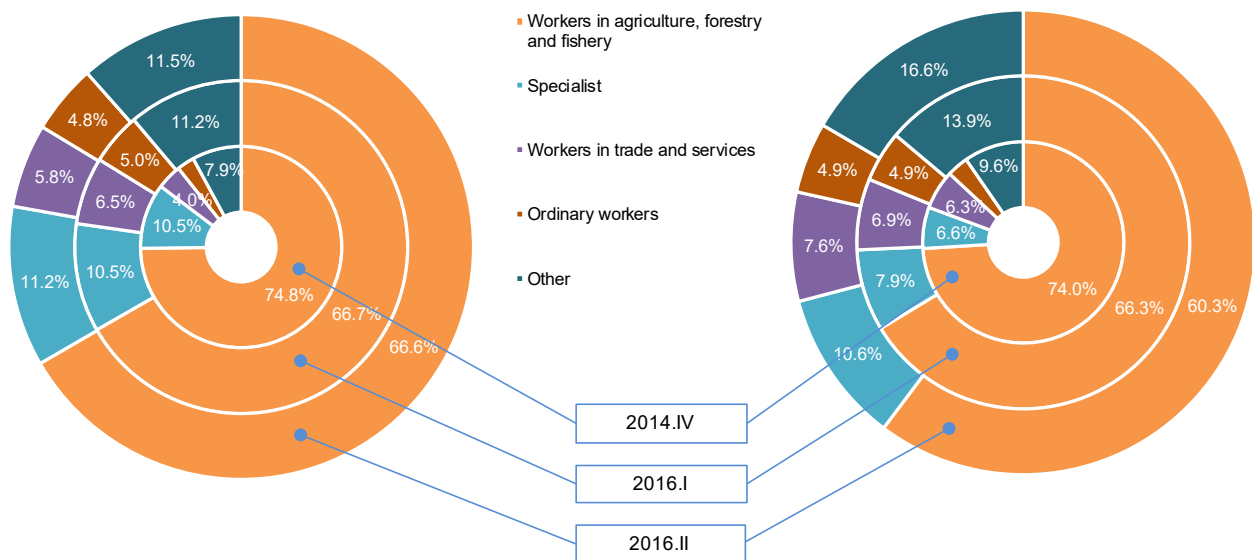
Employment in production of environmental outputs and environmentally friendly processes, by occupation: According to classifications of occupation, 52.9 percent (154.6 thousand people) of all skilled agricultural, forestry and fishery workers are involved in production of environmental outputs in fourth quarter of 2014, 47.4 and 50.4 percent in first and second quarters of 2016. Whereas, 65.9 percent of all skilled agricultural, forestry and fishery workers is employed in environmentally friendly processes in 2014, 71.6 and 66.6 percent in first and second quarters of 2016. The only occupational group that has more than 10.0 percent of workers with “green skills” that are producing environmental products and services and using environmentally friendly processes is “professionals”. 11.8 percent of those with elementary occupations are

also involved in using environmental technologies and practices in fourth quarter of 2014, while it was 23.8 and 20.1 percent in first and second quarters of 2016 (Figure 9). Women generally tend to be underrepresented in environmental sector and in all occupational groups.

FIGURE 9. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, as percentage of total employment, by occupation (%) хаммаарч байна.

Employed in production of environmental outputs

Employed in environmentally friendly processes



Employment in production of environmental outputs and environmentally friendly processes, by status in employment: According to “Guidebook for estimating statistical indicators of employment and labour force” there are six categories of status in employment: paid employee on contract or under civil law, employer, self-employed, member of cooperative, employed in animal husbandry, unpaid family worker.

Distribution of employment in environmental outputs and environmentally friendly processes is shown in Figure 10. 70.9 percent of all employed in production of environmental goods and service and 66.5 percent of all employed in environmentally friendly processes were in animal husbandry in fourth quarter of 2014. While, in first and second quarter of 2016, 62.4 percent of all employed in production of environmental goods and services were in animal husbandry, 56.3 percent of all employed in environmentally friendly processes were in animal husbandry in second quarter of 2016. The distribution suggests that number of women employed in the environmental sector is more than number of men for both paid employees and unpaid family workers.

More than half of animal husbandry holders employed in the environmental sector. 10 to 20 percent of employers, paid employees and self-employed are in the environmental sector (Figure 11).

FIGURE 10. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, by status in employment (%)

Employed in production of environmental outputs

Employed in environmentally friendly processes

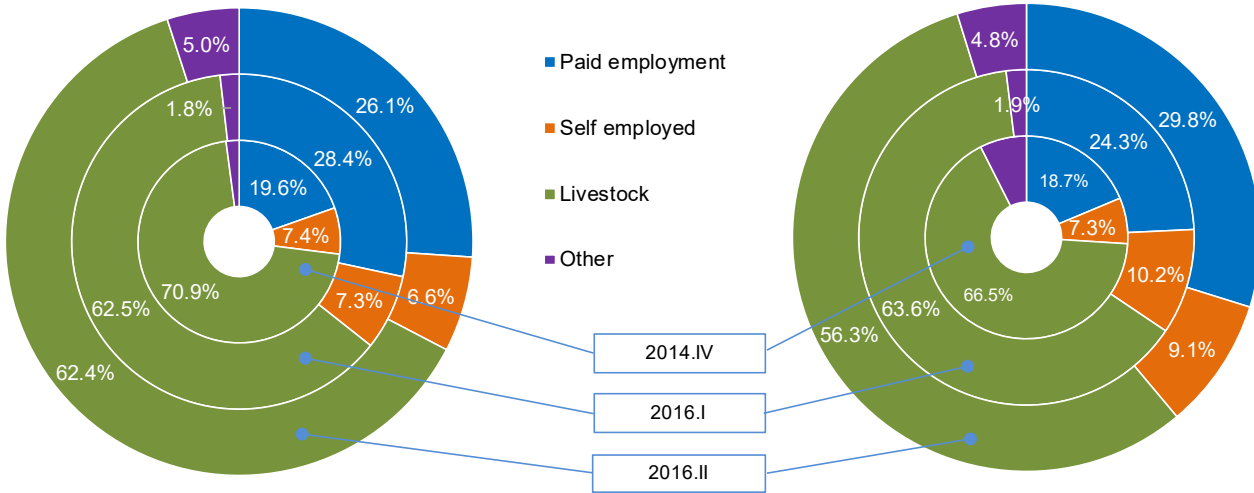
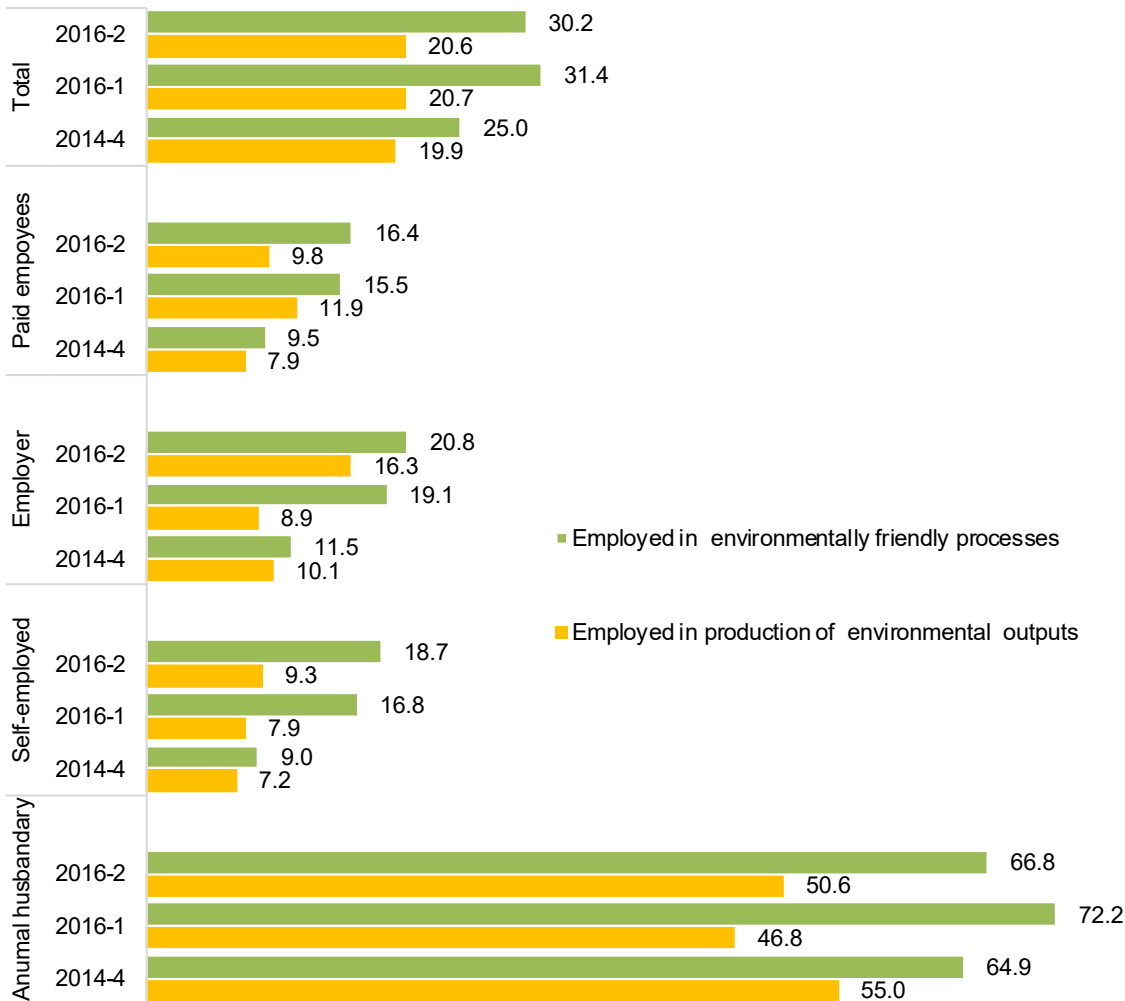
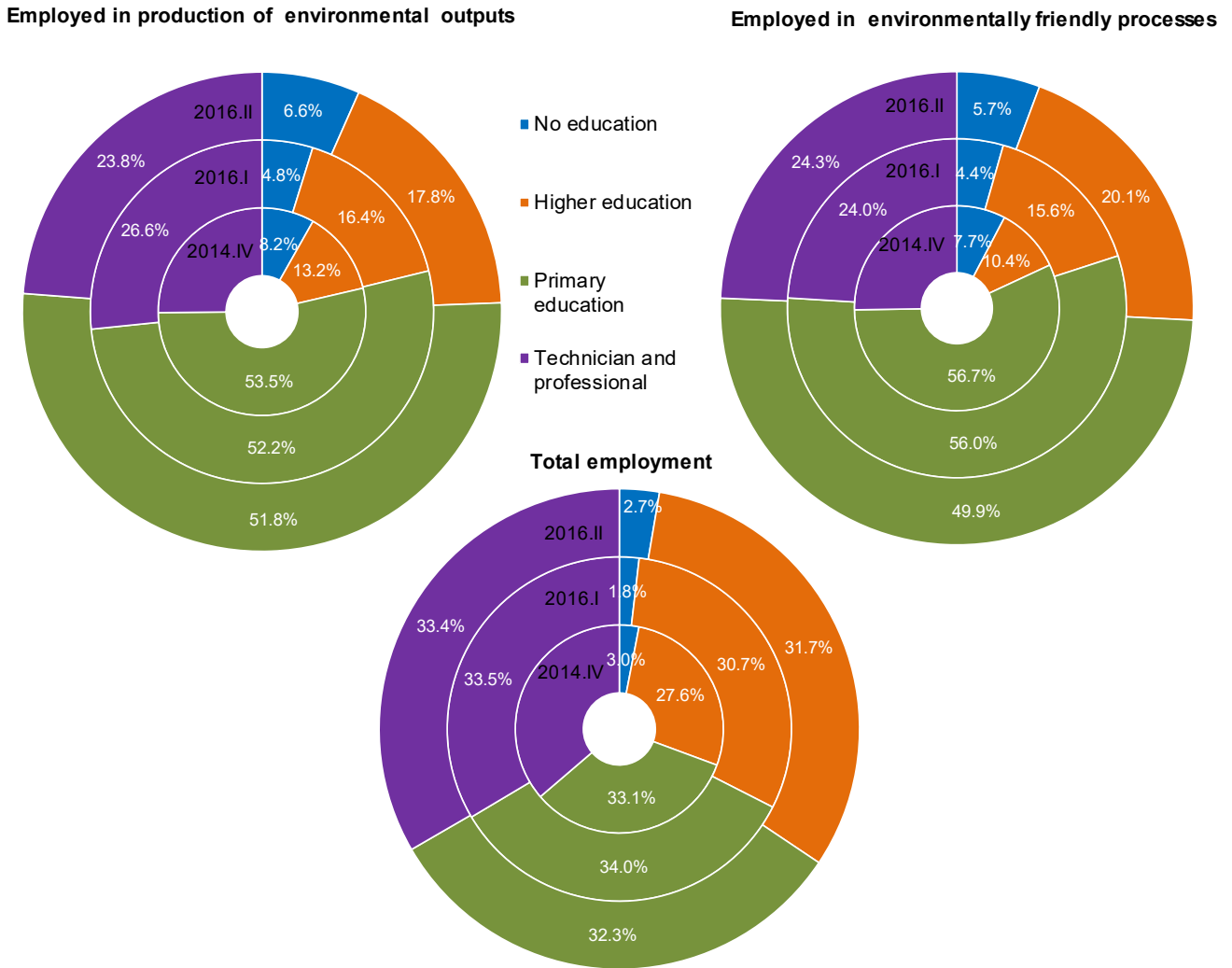


FIGURE 11. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, as percentage of total employment, by status in employment (%)



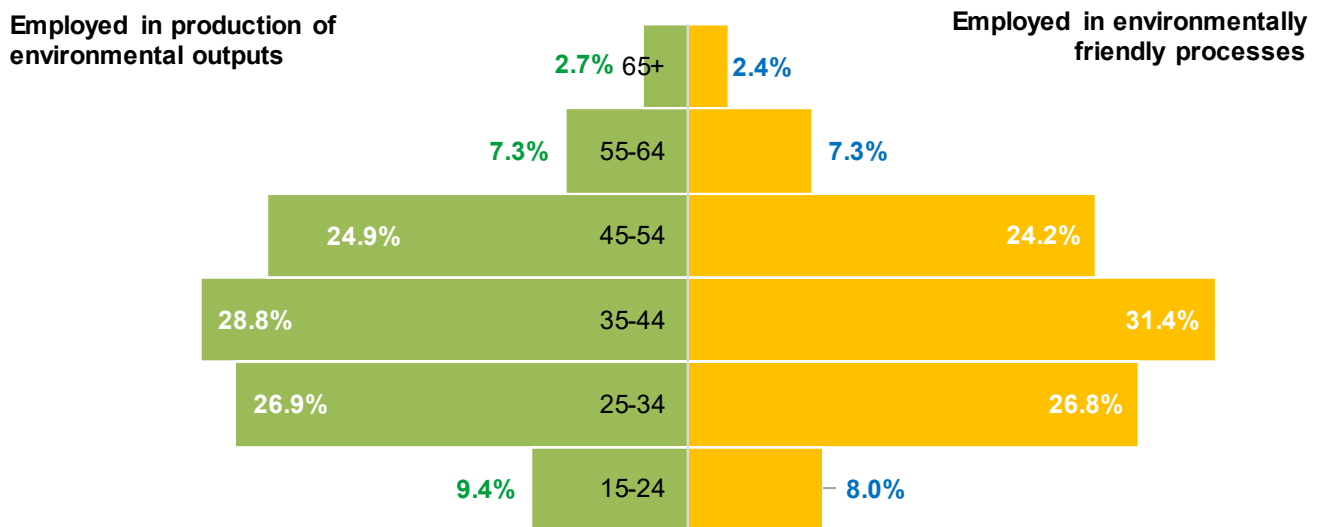
Employment in production of environmental outputs and environmentally friendly processes, by level of education: Almost two-thirds of all employed in the environmental sector have either secondary level of education, high school or technical vocation, which corresponds to the overall level of education of all employed in Mongolia (Figure 12).

FIGURE 12. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, as a percentage of total employment, by level of education (%)



Employment in production of environmental outputs and environmentally friendly processes, by age group: Around 30.0 percent of all employed persons age of 25-54 are engaged in the environmental sector in second quarter of 2016. This percentage is much higher for employed age group 35-44 (over 30.0 percent in production of environmental outputs and environmentally friendly processes) (Figure 13).



FIGURE 13. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL SECTOR, by age (%)

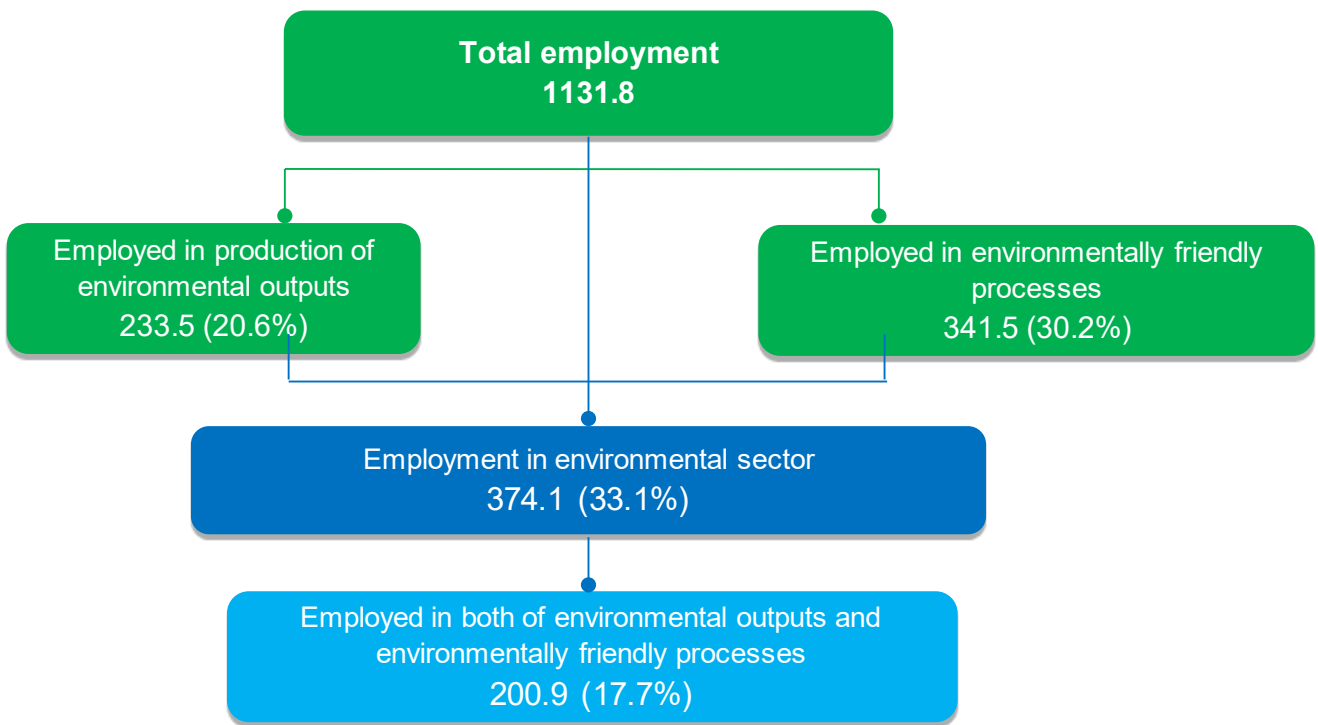
Employment in production of environmental output and environmentally friendly processes, by aimag, region and the capital city: The level of employment in production of environmental outputs and environmentally friendly processes varies significantly by geographical regions and this is affected by administrative system of the country, climate and geographical conditions, density of population, and the type of economic activities by region.

40 percent of all employed are working in Ulaanbaatar, while 50 percent of environmental sectors employees are in West and Khangai regions.

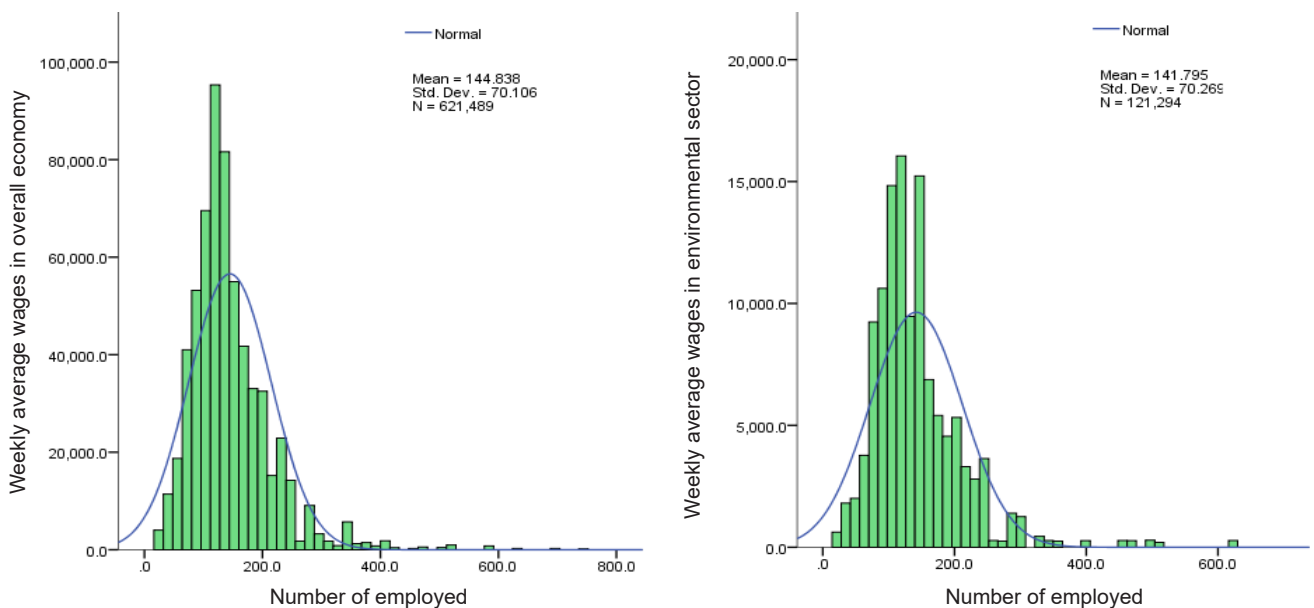
6.1.2 Employment in the environmental sector

The employment in the environmental sector survey includes employed in production of environmental outputs, and those employed in environmentally friendly processes. Out of the total number of employed in environmental sector; 292.2 thousand in fourth quarter of 2014, 372.0 thousand in first quarter of 2016 and 374.1 thousand in second quarter of 2016, 206.7 thousands were involved in production of environmental outputs and 260.3 thousands in environmentally friendly processes.

Many of those who are involved in production of environmental outputs do produce these goods and services by using environmentally friendly processes and technologies, thus reducing the environmental impact of their activities or by making more efficient use of environmental resources.

FIGURE 14. EMPLOYMENT IN ENVIRONMENTAL SECTOR, second quarter of 2016

Average wages of employed in the environmental sector: Average wages in the environmental sector compared to average wage of Mongolia were 3.5 percent lower in fourth quarter of 2014, 6.5 percent and 2.1 percent in first and second quarter of Mongolia, respectively. This is mainly due to the fact that most of the workers in environmental sector are non-skilled agriculture workers.

FIGURE 15. WEEKLY AVERAGE WAGES DISTRIBUTION

6.1.3 Green jobs

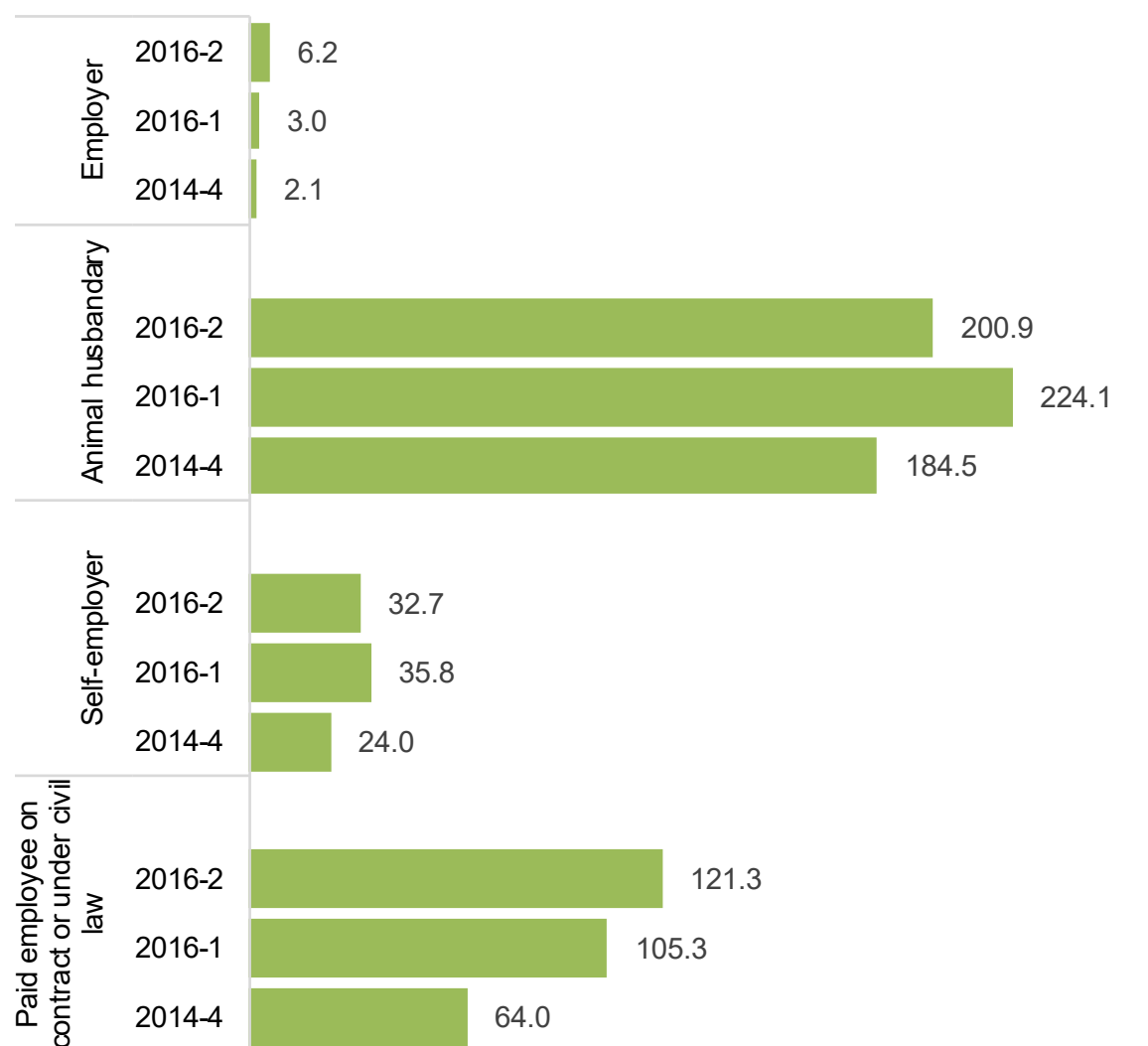
The last phase of analysis is to identify workers whose jobs satisfy the criteria of decent jobs. The following two criteria were used to identify jobs that are decent:

1. Coverage by social protection scheme
2. Adequate earnings (earnings above the 2/3 of median earnings)

Social security coverage is being measured only for workers in paid employment because, in principle, the social security is not available to those who are not in paid employment. The decency of earning was measured for all categories of workers, regardless of their employment status.

Out of total 374.1 thousand employees in environmental sector in second quarter of 2016, 53.7 percent (200.9 thousand people) are as animal husbandry, 32.4 percent (121.3 thousand people) are paid workers, 8.7 percent (32.7 thousand people) are self-employed, and 5.1 percent (19.2 thousand people) are unpaid family workers, and employers (Figure 16).

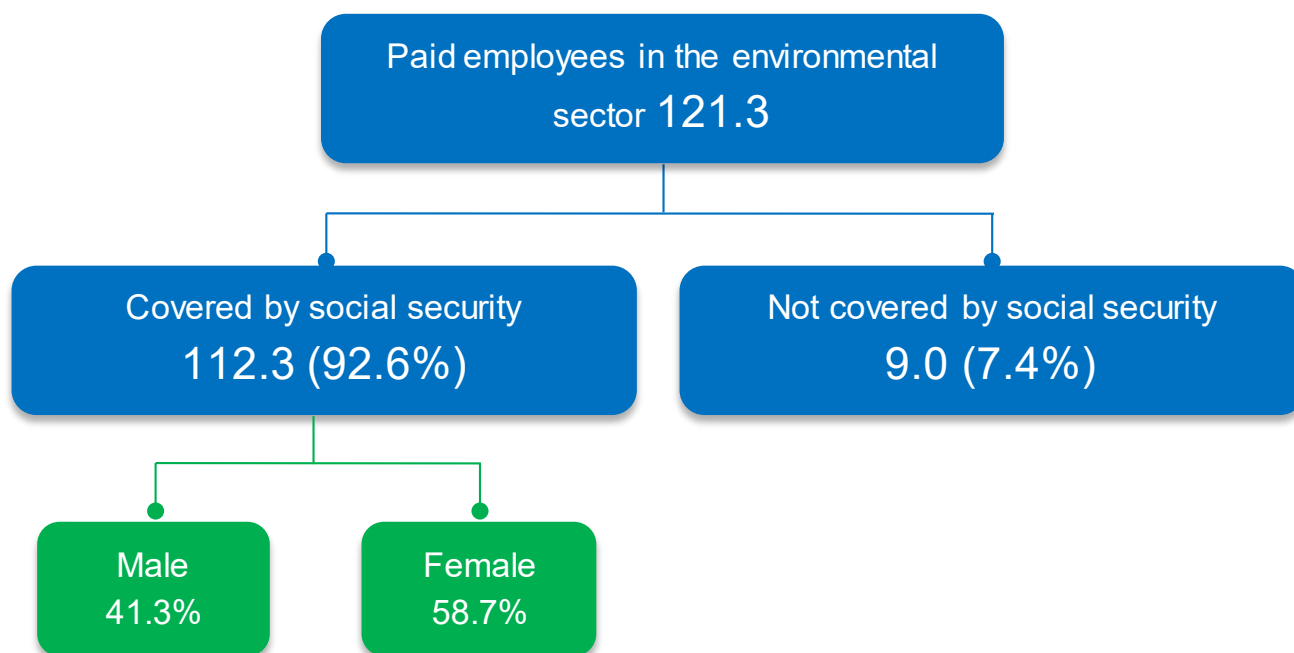
FIGURE 16. EMPLOYMENT IN ENVIRONMENTAL SECTOR, by status in employment, thous.persons



In second quarter of 2016, out of 121.3 thousand workers in paid employment in environmental sector 92.6 percent are covered by social security scheme, and 84.7 percent has wage higher than two-third median of weekly average wage, and can be categorized as a green job.

Of all green jobs (employees in environmental sector who are covered by social security insurance) 41.3 percent are occupied by men and 58.7 percent by women (Figure 18).

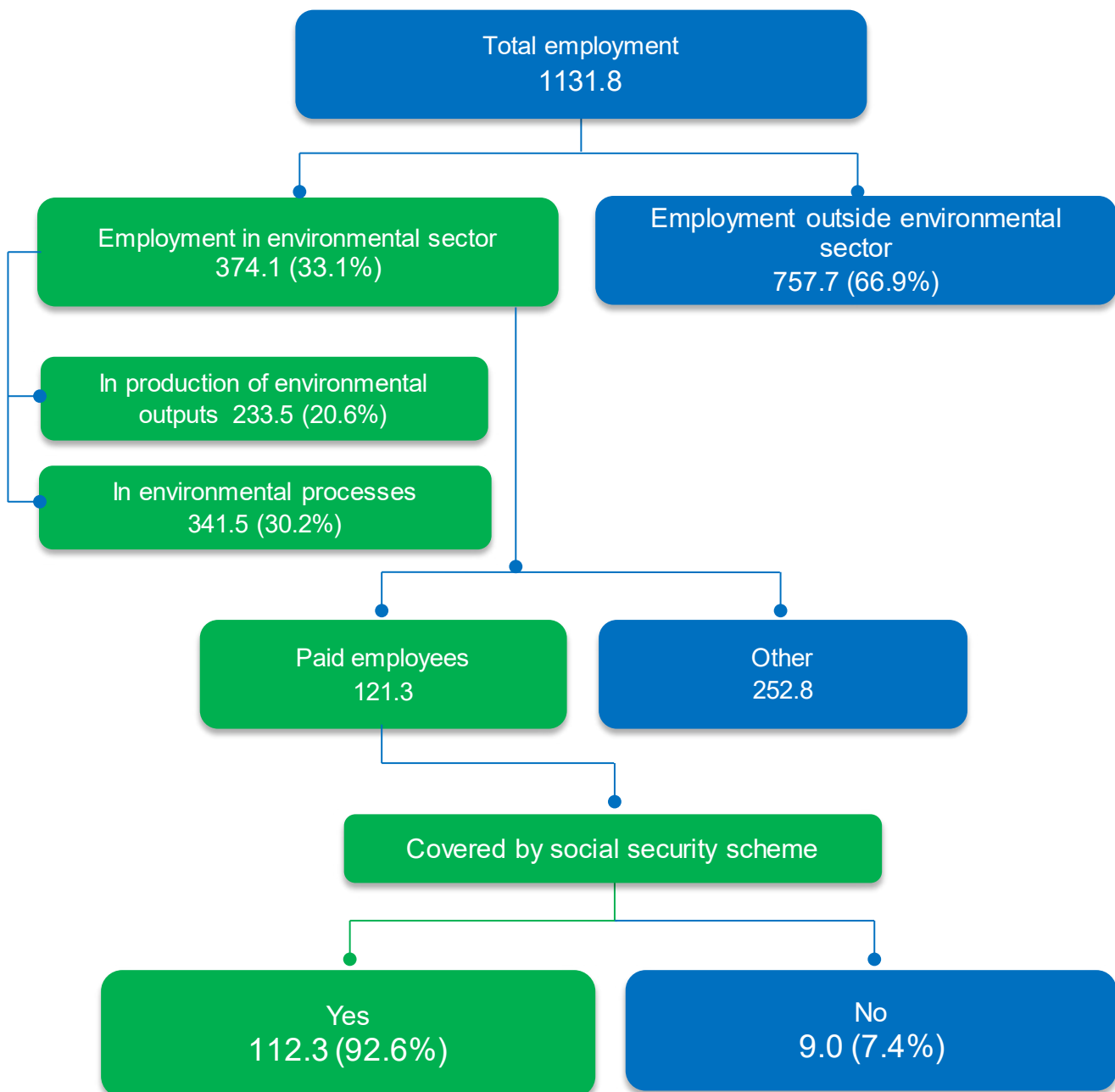
FIGURE 17. PAID EMPLOYEES IN ENVIRONMENTAL SECTOR, by social security coverage, thous. persons



Out of 121.3 thousand paid employees in the environmental sector, 112.3 thousand, which represents 9.9 percent of total employment, are considered as green since those are environmentally friendly (reduce or eliminate pressures on the environment or to make more efficient use of natural resources) and are covered by social security schemes (Figure 17).

Out of 374.1 thousand employed in the environmental sector, 196.8 thousand, which represents 17.4 percent of total employment, are considered as green since those are environmentally friendly (reduce or eliminate pressures on the environment or to make more efficient use of natural resources) and pay decent wages (more than two-third of median earnings) in Mongolia in 2nd quarter of 2016.

FIGURE 18. SCHEME TO DEFINED GREEN JOBS IN MONGOLIA, second quarter of 2016, thous.persons



Green jobs, by sex: From the employment of second quarter of 2016, 58.7 percent of employees in green jobs are male and 41.3 percent are female. In terms of age, 34.3 percent of employees in green jobs are between 25-34, 33.1 percent are between 35-44 and 24.0 percent are between 45-54 (Figure 19).

FIGURE 19. GREEN JOBS, by sex and age group, second quarter of 2016, (%)

Sex

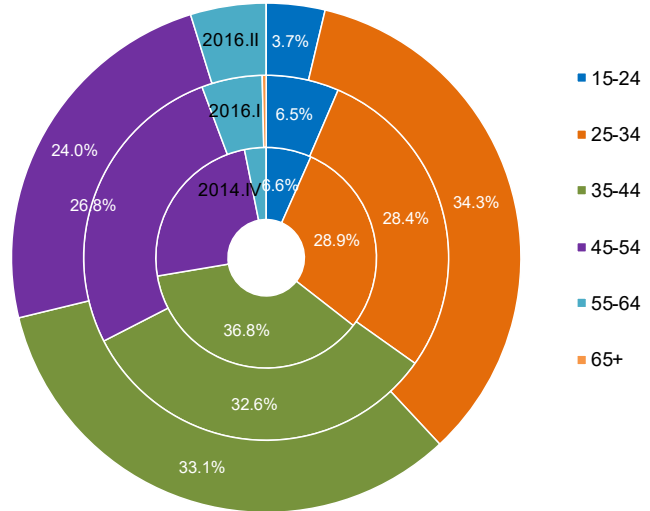
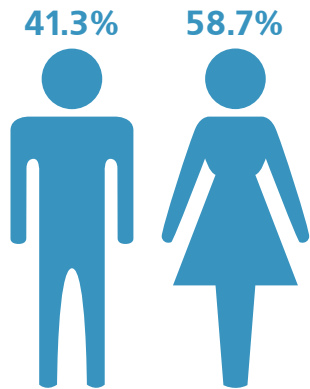


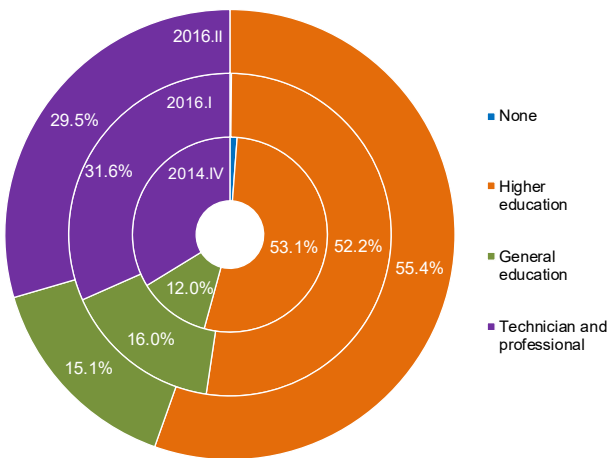
TABLE 1. GREEN JOB, by sex, thous.persons

Sex	4 th quarter of 2014		1 st quarter of 2016		2 nd quarter of 2016	
	#	%	#	%	#	%
Total	58.7	100.0	96.2	100.0	112.3	100.0
Male	27.9	47.4	46.8	48.6	46.4	41.3
Female	30.9	52.6	49.4	51.4	65.9	58.7

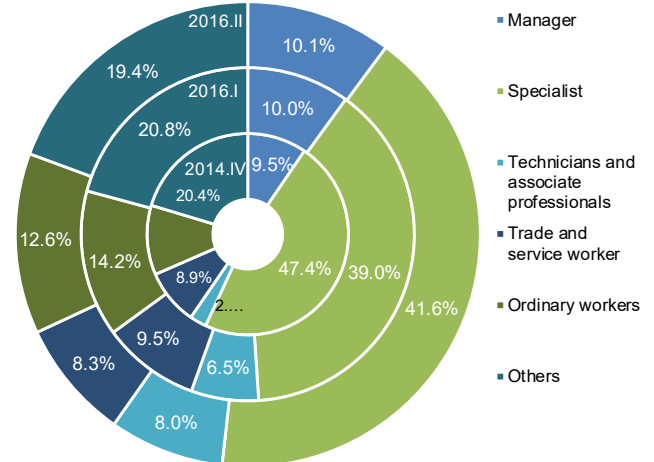
Green jobs, by level of education and occupation: In terms of level of education, over three quarter of employees in the environmental sector have attained high school diploma and above. In terms of occupation, half of all green jobs are professionals, around 10.0 percent have elementary occupations, such as managers, service and sales workers (Figure 20).

FIGURE 20. GREEN JOBS, by education level and occupation, and quarters, (%)

Education level

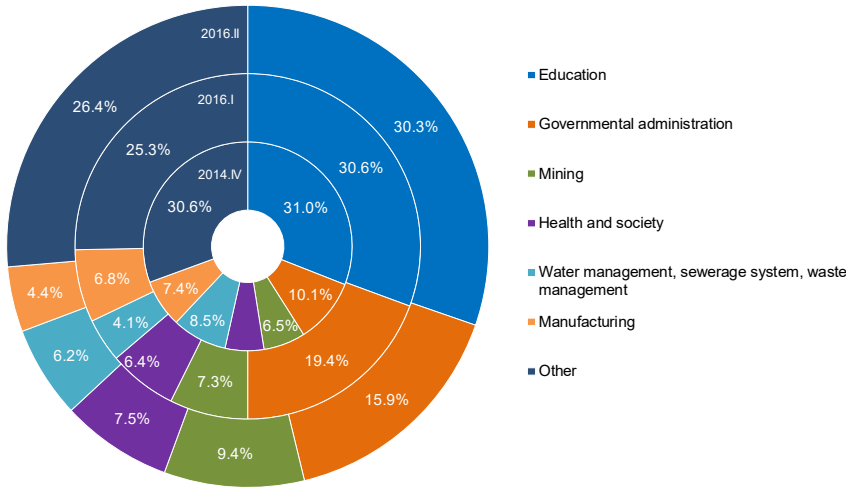


Occupational category



Green jobs, by main economic activity: In the second quarter of 2016, 30.3 percent of all green jobs are in education sector, 15.9 percent are in public administration, defence, and compulsory social insurance, 9.4 are in mining sector, 6.5 percent are in water supply, sewerages, waste management, and remediation sector, and 4.4 percent are in manufacturing sector (Figure 21).

FIGURE 21. GREEN JOBS, by main economic activity, and quarters, (%)

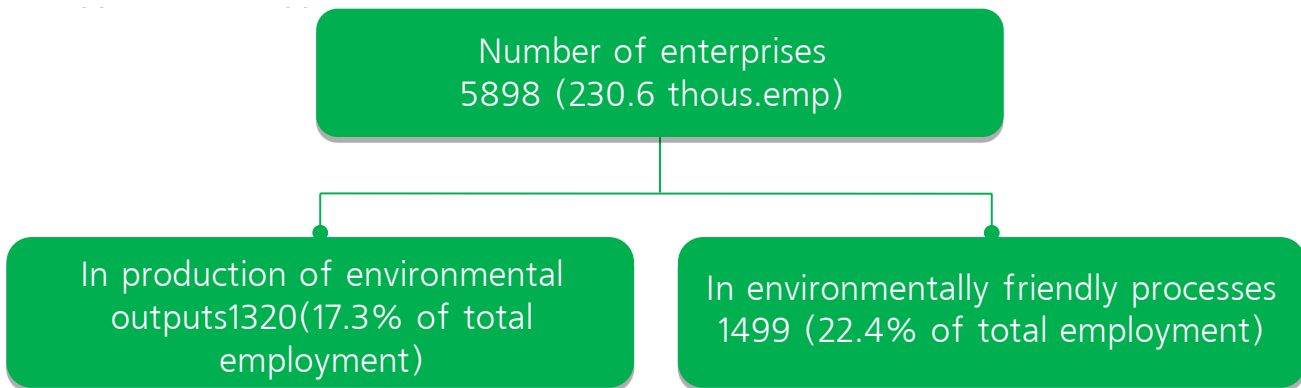


6.2 ENTERPRISE SURVEY RESULTS, 2014

6.2.1 Enterprises and employment in production of environmental outputs and environmentally friendly processes

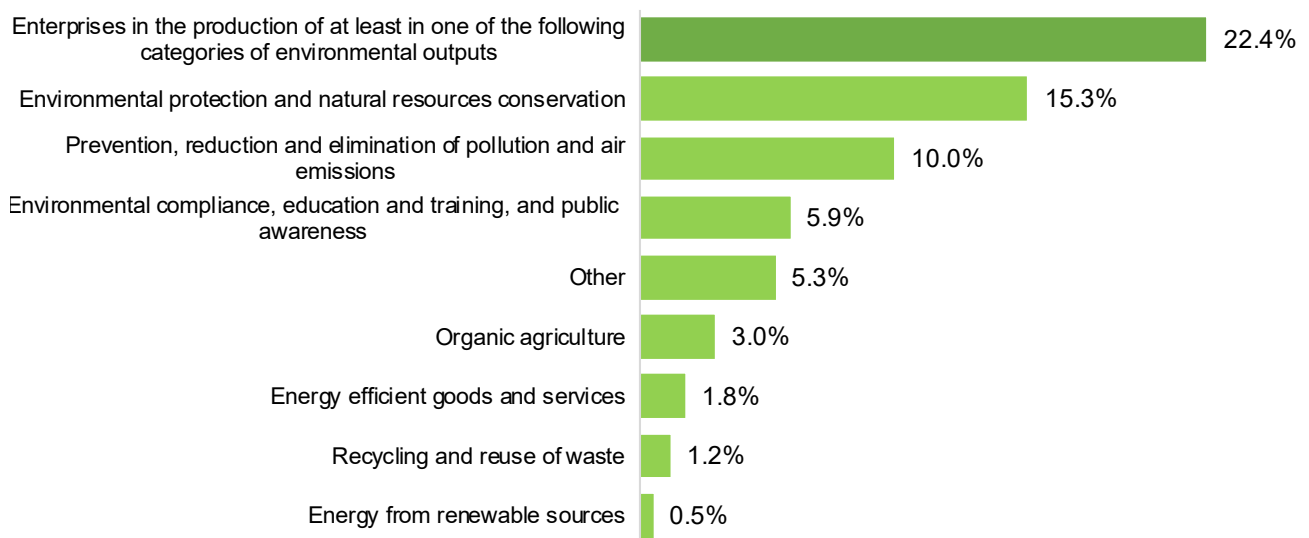
The Green Jobs pilot survey attached to the enterprise activity survey 2014 shows that 22.4 percent (1320 enterprises) of 5.9 thousand enterprises are involved in the production of at least one type of environmental goods and/or services and 25.4 percent (1499 enterprises) use at least one type of environmentally friendly processes that reduce and/or eliminate environmental impact of their production process or make more efficient use of natural resources (Figure 23).

FIGURE 22. ENTERPRISES INVOLVED IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES



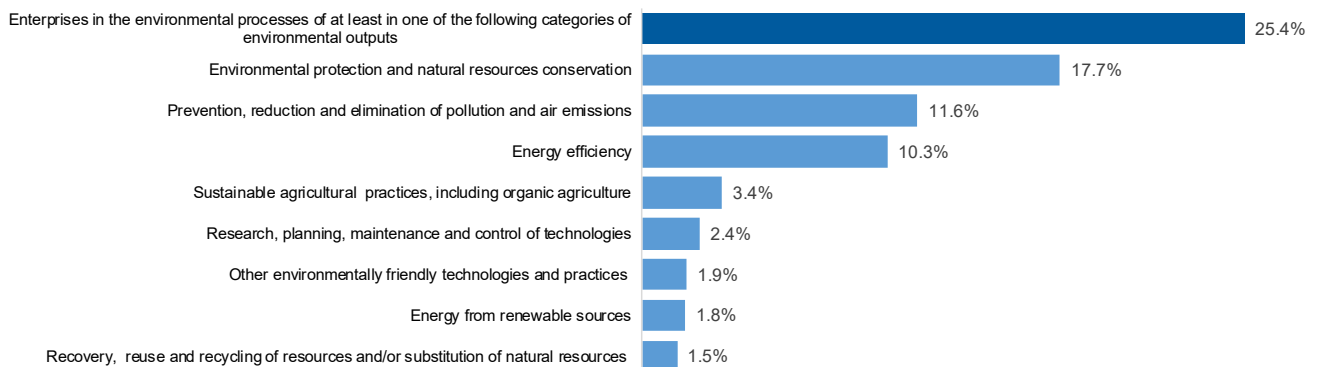
Enterprises involved in production of environmental outputs and environmentally friendly processes, by category of environmental activity: 22.4 percent and 25.4 percent of all enterprises are involved in production of at least one category of environmental goods and services and environmentally friendly processes, respectively. Environmental protection and natural resources conservation is the most populated environmental activity, with 15.3 percent and 17.7 percent of all enterprises engaged in production of environmental outputs and environmentally friendly processes respectively. About 0.5 percent of all enterprises are involved in production of energy from renewable energy, and only 1.2 percent of all enterprises recover, reuse and recycle the waste they produce (Figure 23 and 24).

FIGURE 23. ENTERPRISES INVOLVED IN PRODUCTION OF ENVIRONMENTAL OUTPUTS



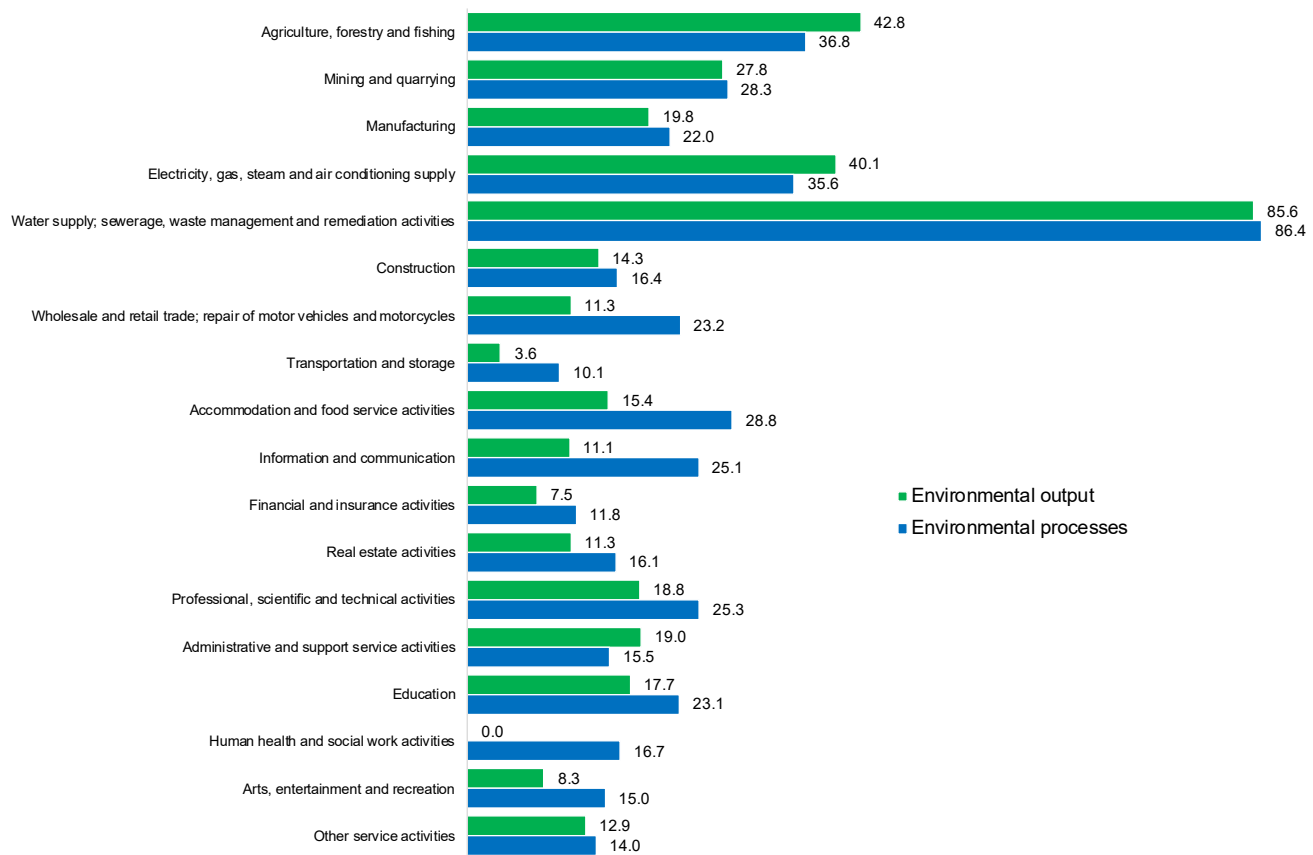
Environmental protection and natural resources conservation is the most populated environmental activity, with 17.7 percent of all enterprises engaged in environmentally friendly processes. Prevention, reduction and elimination of pollution and air emissions is 11.6 percent, energy efficient technology and practices is 10.3 percent sustainable agricultural practices, including organic agriculture (sustainable) is 3.4 percent of all enterprises engaged in environmentally friendly processes (Figure 24).

FIGURE 24. SHARE OF ENTERPRISES USING ENVIRONMENTALLY FRIENDLY PROCESSES TO TOTAL NUMBER OF ENTERPRISES COVERED IN THE SURVEY



Enterprises involved in production of environmental outputs and environmentally friendly processes, by main economic activity: More than 80.0 percent of all enterprises registered in economic activity “Water supply; sewerage, waste management and remediation activities” are involved in production of environmental outputs and environmentally friendly processes. Because of their close relationship to and dependence on the environment, percentage of those engaged in agriculture, forestry and fishing and electricity, gas, steam and air conditioning supply is higher than the average for the economy (Figure 25).

FIGURE 25. ENTERPRISES INVOLVED IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, by main economic activity, (%)



Enterprises involved in production of environmental outputs, by revenues from sale of environmental goods and services: Less than 10.0 percent of all enterprises involved in the production of environmental outputs, have revenues from the sales of environmental goods and services, and the remaining 90.0 percent that do produce at least some categories of environmental goods and services do not have any revenues from the sales of these goods and services. This category includes non-profit organizations, government agencies, research organizations, and new businesses that produce environmental goods and/or services without generating income. For the enterprises that have revenues from the sale of environmental goods and services, this share in total revenues is on average 64.0 percent. The nature of its activities, in agriculture, forestry, and fishing, the share of revenues is significantly higher than the average and stands at more than 76.0 percent.

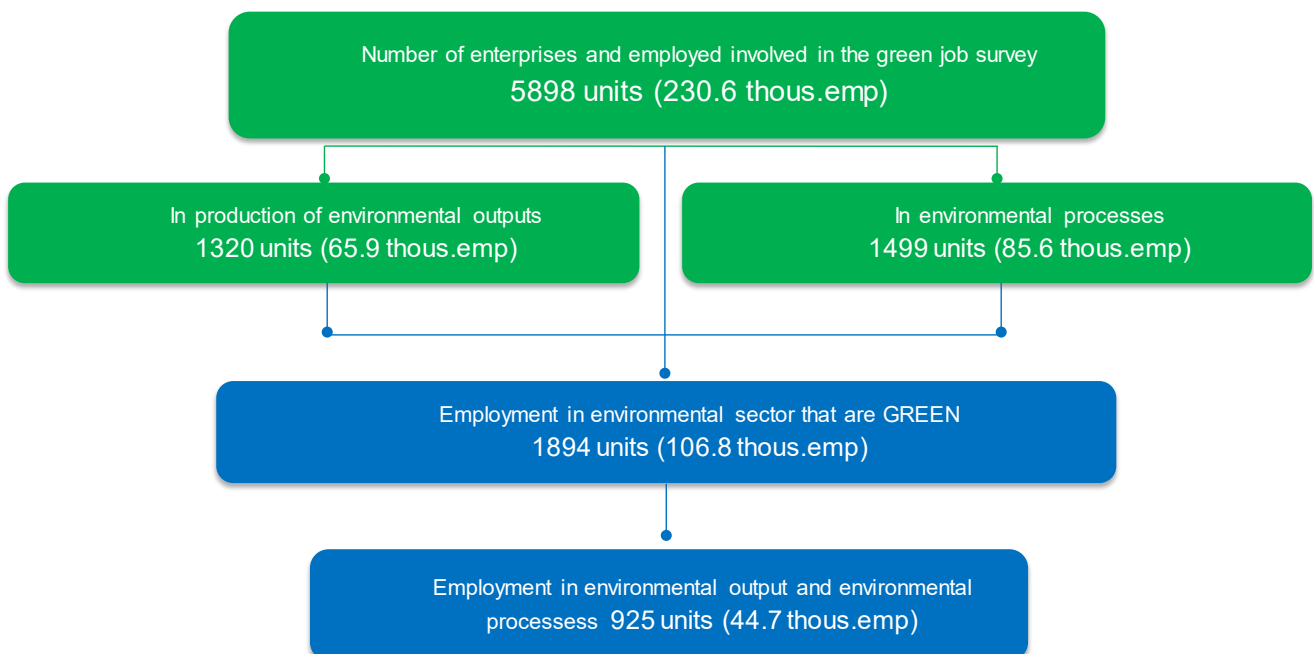
Employment in enterprises producing environmental products and services, and in enterprises using environmentally friendly technologies: In 2014, the percentage of all employed that worked in enterprises that produce environmental outputs and services was 27.5 percent. However only 5.9 percent of all employed persons were actively involved in the production of environmental outputs (Table 3). Many of these jobs are found in enterprises that primarily produce goods and provide services that benefit the environment or conserve natural resources. More than half of these jobs are in the manufacturing; electricity, gas, steam and air conditioning supply, and mining and agriculture sector.

In 2014, the percentage of all employed working in enterprises using environmental technologies was 37.5 percent. However only 0.4 percent of all employed spend more than half of their work time using these technologies (Table 2). Almost two-third of these jobs are occupied by persons who are managers, professionals or technicians and associate professionals.

6.2.2 Decent work and Green jobs

The enterprises involved in the annual enterprise activity survey are formally registered. Therefore, all jobs in enterprises that are involved in production of environmental outputs and environmentally friendly processes can be considered as decent and as green.

FIGURE 26. ENTERPRISES INVOLVED IN ENVIRONMENTAL SECTOR

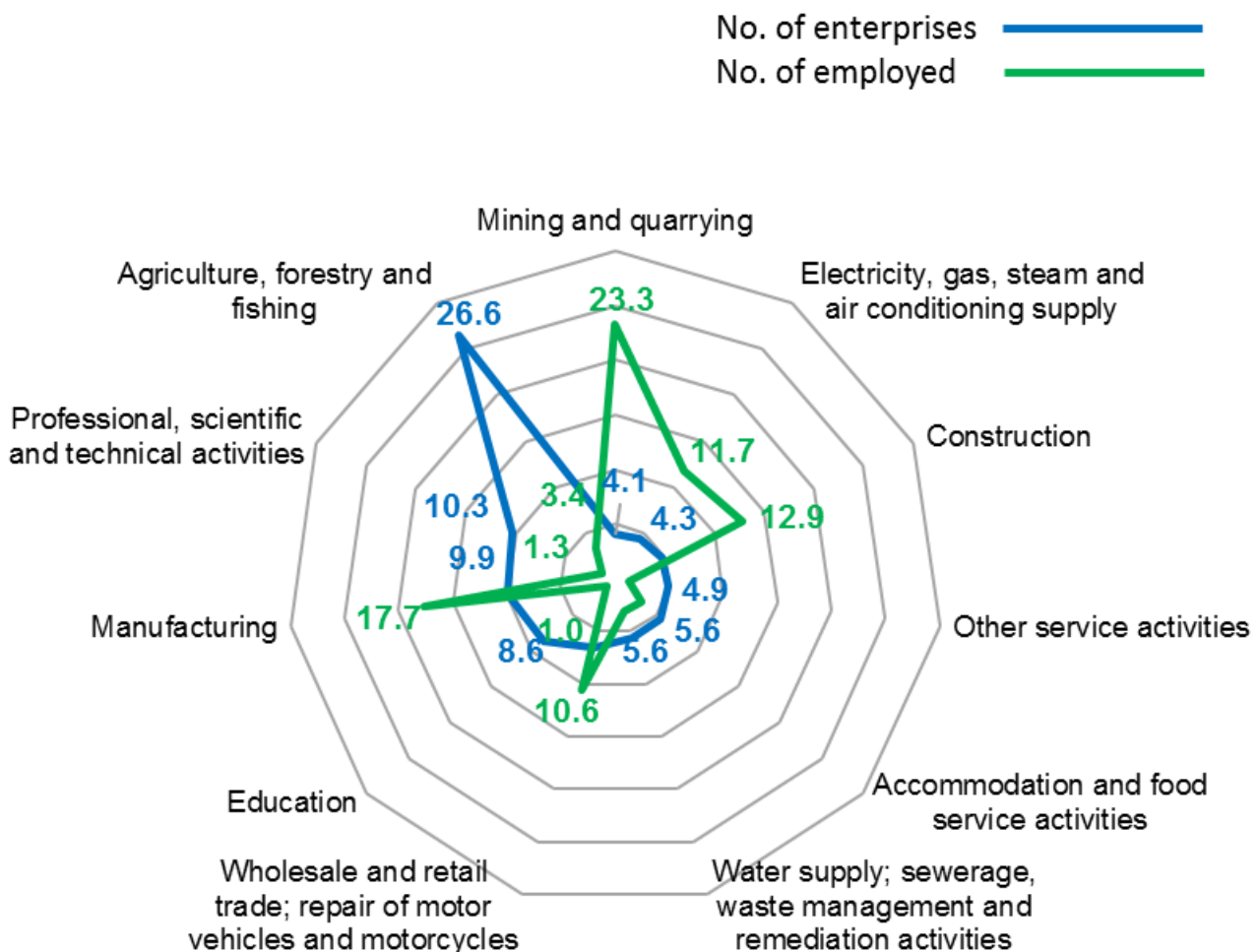


Enterprises and employed in environmental sector: The environmental sector includes enterprises involved in production of environmental goods, and those using environmentally friendly technologies and processes. From the total number of enterprises engaged in the environmental sector is 1894 units (106.8 thousand employed), out of which 1320 units (65.9 thousand employed) are involved in production of environmental outputs and 1499 units (85.6 thousand employed) in environmentally friendly processes (Figure 26).

About half of all units engaged in the environmental sector produce environmental outputs by using environmentally friendly technologies.

Green jobs in the environmental sector, by main economic activity: 26.6 percent of enterprises active in environmental sector are in agriculture, forestry and fishing sector, 10.3 percent in professional, scientific and technical activities, 9.9 percent are in manufacturing. Distribution of green jobs is slightly different. Almost a quarter of all green jobs are in mining and quarrying sector, and about 18.0 percent in manufacturing sector (Figure 27).

FIGURE 27. SHARE OF NUMBER OF ENTERPRISES AND GREEN JOBS TO TOTAL, by main economic activity, percentage



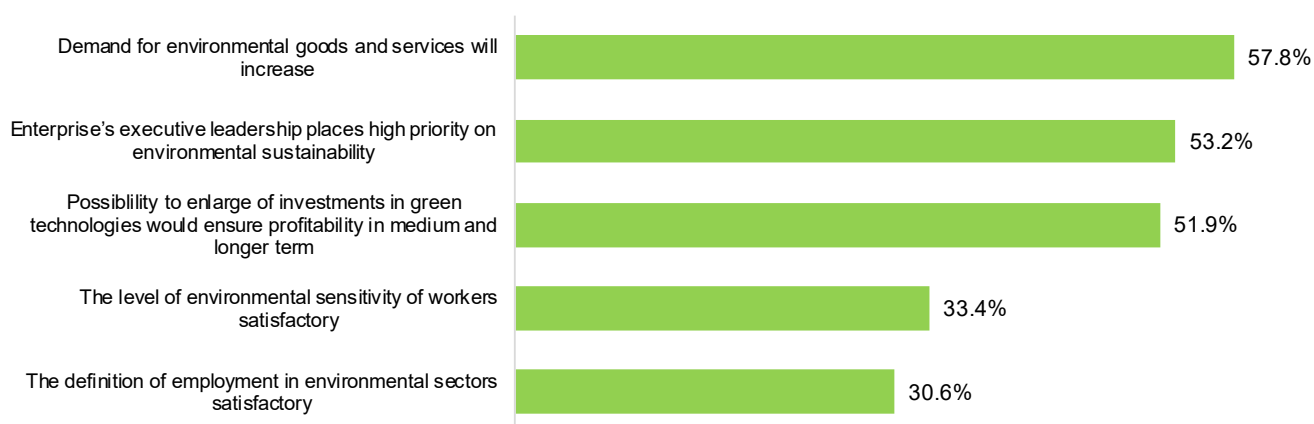
6.2.3 Perceptions and expectations of enterprises

As part of the pilot enterprise survey a number of optional questions were asked regarding environmental sensitivity of workers, constraints they face in the way of implementing “green” practices and expectations for increased demand for environmental goods and services. The results (Figure 28) are the following:

- Almost 60 percent of enterprises believe that the demand for environmental goods and services will increase,
- More than 50 percent consider the environmental sustainability as high priority,
- More than 50 percent believe that enlargements of investments in green technologies would ensure profitability in medium and longer term,

It is interesting that only 30 percent consider the definition of employment in environmental sector comprehensively and satisfactory. However, not many suggestions for improving it have been provided.

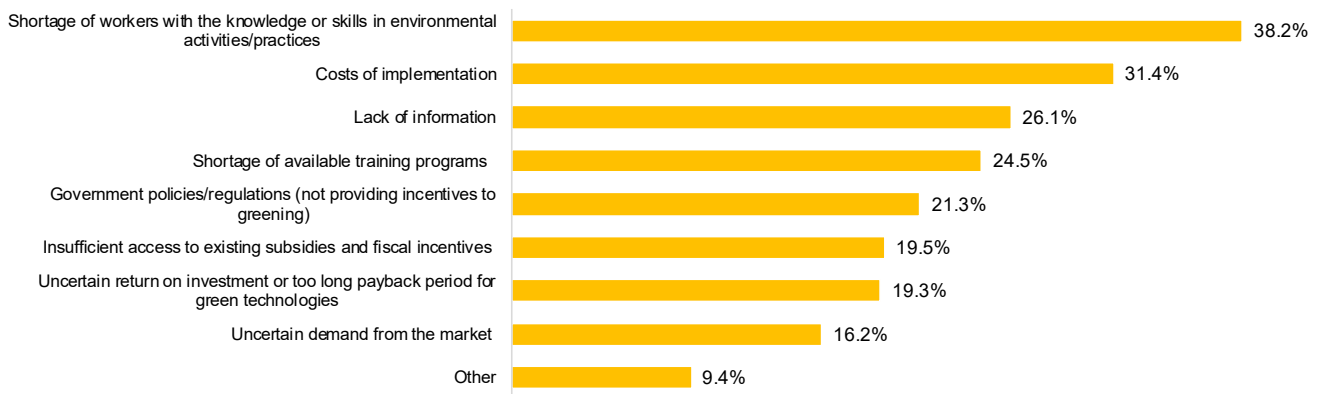
FIGURE 28. PERCEPTIONS AND EXPECTATIONS IN ENVIRONMENTAL SECTOR, (% of enterprises)



Enterprises are facing following challenges to implement green practices at their working place. Including:

- Almost 40 percent of enterprises face shortage of trained personnel with knowledge and skills in environmental activities/practices;
- More than 30 percent face financial constrains in implementing green technologies and processes;
- One quarter face a shortage of available training programs in environmentally friendly processes;
- About 20 percent consider that financial incentives for greening production and access to subsidies are insufficient (Figure 29).

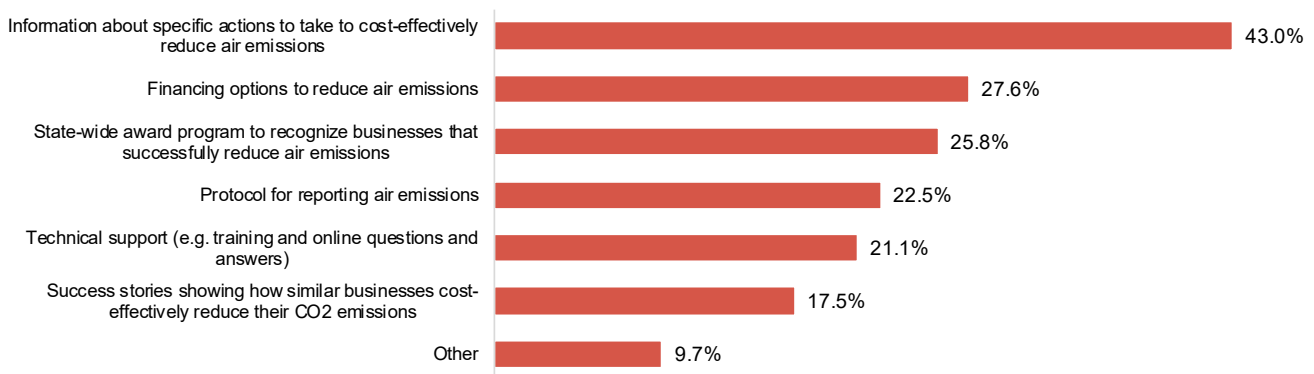
FIGURE 29. OBSTACLES FACED IN IMPLEMENTING “GREEN” PRACTICES (% of enterprises)



43 percent of enterprises would like to have more information about specific action that can be taken to reduce or eliminate the creation or release of pollutants in a cost-effective way.

About one quarter believe that favourable financing options, state-wide award program that recognize businesses that successfully reduce air emissions, and protocols for reporting air emissions could have a significant impact on the level of air emissions (Figure 30).

FIGURE 30. FOR ELIMINATION, CREATION OR RELEASE OF POLLUTANTS (e.g. CO₂ emissions) (% of enterprises)



7. FINDINGS AND RECOMMENDATIONS

Following challenges launched solutions and reflected to the survey result that faced during the survey process. Including:

№	Proposed Issues	Decisions
Labour force survey:		
1	Do green jobs exist in the households as production units? If the household uses a refrigerator or any other electrical appliance that is energy efficient (example: A++) OR if the household uses solar panels to generate heat, should this household counted as producer of environmental goods and services or/an environmentally friendly processes?	<ul style="list-style-type: none"> - If a household member runs a business at its home address (e.g. farm producing agricultural products for own consumption and sale) and generate electricity from solar panels, which is being used for running the business (e.g. lightening the worksite or heating the water) it should be reported as employment in environmental technologies and practices (production of electricity from renewable sources for consumption within the production unit). - If the electricity generated is for sale it should be reported as employment in production of environmental outputs (electricity from renewable sources). - In case there is no family business but the household uses solar panels to generate electricity for its own consumption, it is outside the scope of the green jobs statistics. - The logic is the same with the energy efficient appliances. Their use should be recorded under usage of technologies and practices to increase energy efficiency within the production unit, but only if these energy efficient electrical appliances are used in the production process.
2	What is meant by working hours spent on production of environmental good and services intended for consumption outside the workplace”?	<ul style="list-style-type: none"> - « Consumption outside the workplace » means that the production of environmental goods and services is intended for consumption by others (i.e. for the market). - In the module respondents are asked to estimate (indicate) the percentage of their working hours they have spent on the production of environmental goods and services. For instant, a waste collector spends 100% of its time on waste collection. However, a worker in a factory may spend 30% of its work time producing solar panels and 70% of its work time on production of products that have no environmental purpose.



№	Proposed Issues	Decisions
3	What is the difference between the employment in production of environmental outputs and the employment in environmentally friendly processes?	<ul style="list-style-type: none"> - The main difference is that the first one involves production of environmental outputs for the market (for sale) while the second one involves production of environmental outputs for consumption within the production unit. For instant, if a person is employed in a company that generate electricity, heat or fuel from renewable sources and sells this energy to the public it should be recorded as employment in production of environmental outputs. - However, if a person is employed in a company used solar panels to generate electricity and heat water that are being consumed within the company (to provide lightening or hot water) and this person is directly involved in operating and maintaining these solar panels, public it should be recorded as employment in environmentally friendly processes.
4	Should the extraction and use of geothermal heat be included in the production of environmental goods and services?	<ul style="list-style-type: none"> - Yes, it should be included in production of environmental goods and services.
5	What is the scope of organic agriculture? Since, in Mongolia, almost all agricultural products are organic, can we say that all herders have green job?	<ul style="list-style-type: none"> - Herders and farm owners that do not use chemical fertilizers, pesticides and antibiotic should be counted as both employment in production of environmental outputs or employment in environmentally friendly processes.
6	Why the technologies and practices are specifically mentioned in the employment in environmentally friendly processes?	<ul style="list-style-type: none"> - Green jobs may exist in. <ul style="list-style-type: none"> • Economic units that produce environmental outputs; • Economic units that do not produce environmental outputs but use « green » technologies and practices; and • Economic units that produce environmental outputs by using green technologies. - It is important to quantify employment related to the use of green technologies.



№	Proposed Issues	Decisions
7	How to record a household member that has more than one job (for example he/she works at toilet paper factory and at the same time runs business at home)?	<ul style="list-style-type: none"> - In case a person has two (or more jobs), <ul style="list-style-type: none"> i. one could be in environmental sector, and the second job outside environmental sector ii. both jobs could be in environmental sector or iii. both jobs could be outside environmental sector - In case both jobs are in the environmental sector, the working time spent on production of environmental outputs/environmentally friendly processes should be based on both jobs.
8	Should an employed person who works in a worksite with energy efficient lighting system, be counted as using an energy efficient technology?	<ul style="list-style-type: none"> - No, unless he/she is responsible for operating and maintaining an efficient lighting system.
9	How to record the herders, who raise their livestock without hormones, antibiotics and other unwanted chemical and sell the cashmere and wool to the market and use solar panels?	The herders who use sustainable livestock practices and sell their produce to the market should be recorded under the "production of organic agricultural products », as well as under the « Sustainable agricultural practices, including organic agriculture". The use of solar panels for running the farm should be recorded under « usage of energy from renewable sources".
10	How to record a household member who buys and re-sells second hand clothes on the market?	Only the person who initially sells second hand clothes should be counted in. The re-sellers should not be counted in environmental activities.
11	Where to record people who collect some waste/garbage (plastic, bottle) for a living and sale them to recycling centres?	The people that collect and sort waste should be counted in and recorder under « recycling and reuse of waste ».
12	How to record use of livestock dung, at least occasionally, for heating, which reduces natural resources, e.g., wood, etc.?	<p>A herder that use livestock dung for heating should be recorded under "energy from renewable sources ».</p> <p>In case the herder also produces organic products for the market, both activities should be recorded as environmental. . A person may be involved in more than one environmental activity.</p>



№	Proposed Issues	Decisions
13	How to record activities in organic agriculture and crop production if reference period is outside the main season (If reference period is the preceding month and most of the agricultural activities take place from April to September)?	Reference period for green activities is one month (spread uniformly throughout the fourth quarter 2014) because the intention was to produce estimates for the quarter. Longer reference period would suffer from recall problems. And the plan was to collect this type of information with quarterly periodicity together with the main LFS variables.
14	Where and how to record a household member that plants a tree in their home yard/fence, but this activity is not related to their family business?	If a household member plants a tree in the garden (to make the garden look nice) is not considered as employment, and is not a market activity. However if a household member plants trees on a big parcel of land, for purposes of reforestation, it should be recorded under » environmental protection and natural resources conservation ».
15	How to record administrative staff in a city planning office whose employee mainly clean city and plant trees and flowers in the parks?	Both the administrative staff and technical staff (cleaners, garbage car drivers, tree planters, etc.) who work in the city planning office should be counted as employment in environmental protection and natural resources conservation because they all contribute to the planning and running of their business.
16	Where to record herders who melt the snow to obtain water for their livestock, and sell the products of livestock to market?	The activity should be recorded as recovery, reuse and recycling of resources and/or substitution of natural resources.
17	Where to record herders who melt the snow to obtain water for their livestock, and sell the products of livestock to market?	The activity should be recorded as recovery, reuse and recycling of resources and/or substitution of natural resources.
18	How to disseminate weighted results of the sample survey in details to users	For sample survey, detailed results have significant deviation and are not representable for core set, thus can only be produced at national level.
19	If certain types of workers are not selected or covered for next quarter in the survey, how to resolve it?	Sample size can be small. Such error can occur; thus survey should be conducted annually.



№	Proposed Issues	Decisions
Enterprise survey		
20	Could results from the enterprise module be used to validate results from the LFS module	The results of two modules are not directly comparable, because of the differences in the coverage of activities and workers. The two modules provide insight into environmental sector from different perspectives.
21	What is meant by energy efficient buildings?	<p>Energy efficient buildings are buildings that are constructed in such a way that they require very little energy to heat the interior in winter or to cool in summer. They are designed to reduce the overall impact of the built environment on human health and the natural environment.</p> <p>To reduce operating energy use, designers use details that reduce air leakage through the building envelope (the barrier between conditioned and unconditioned space).</p> <p>They also specify high-performance windows and extra insulation in walls, ceilings, and floors. Another strategy, « passive solar building design » can also be implemented in constructing low-energy homes.</p> <p>Designers orient windows and walls and place awnings, porches, and trees to shade windows and roofs during the summer while maximizing solar gain in the winter. In addition, effective window placement (day lighting) can provide more natural light and lessen the need for electric lighting during the day.</p>
22	What does excessive tilling of the soil means?	Tillage is the agricultural preparation of soil by mechanical agitation of various types, such as digging, stirring, and overturning. Excessive tillage and exploitation of the soil could lead to erosion and other damage of the soil.
23	Provide examples of environmental activities by ISIC groups	<p>(i) Enterprises that produce environmental outputs:</p> <ul style="list-style-type: none"> • ISIC A, "Agriculture, forestry and fishing": enterprises and farms that produce organic food (any type), • ISIC D, "Electricity, gas, steam and air conditioning supply": enterprises producing energy from renewable sources, • ISIC C, "Manufacturing": enterprises manufacturing energy efficient electrical appliances, • Enterprises that collect waste and recycle it (metal, paper, glass, etc.),



23	Provide examples of environmental activities by ISIC groups	<ul style="list-style-type: none"> - ISIC “Water supply; sewerage, waste management and remediation activities”: enterprises that treat water and sewage treatment plants, or manufacture equipment for treatment of industrial waste water and sewage, (- ISIC O, “Public administration and defence; compulsory social security : government agencies responsible for monitoring and controlling the quality of air, water, soil, etc. - ISIC O, “Public administration and defence; compulsory social security”: government agencies responsible for enforcing environmental regulations and standards, - ISIC P, “Education”: educational institutions that provide education and training related to green technologies and practices. <p>(ii) Enterprises that do not produce environmental output but use green processes (could be in any industry sector in ISIC):</p> <ul style="list-style-type: none"> - Enterprises that generate electricity, heat or fuel from renewable sources for use within your establishment; - Enterprises that use energy efficient appliances, manufacturing equipment, lighting, use of alternative fuel vehicles (fuel cells/advanced batteries, hybrid vehicles, etc.); - Enterprises that recovery, reuse and/or recycle waste from their production process (e.g. collecting and reusing or recycling of glass, metals, paper, rubber, textiles –enterprises); - Enterprises that use technologies or practices to reduce or eliminate the creation or release of pollutants or toxic components as a result of their operations; - Enterprises that use measures to protect the soil, groundwater and surface water; or reduce water consumption; - Enterprises/farm that use sustainable agricultural practices, including organic agriculture; - Enterprises that conduct research and/or develop processes to conserve energy or natural resources or to reduce pollution.
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Furthermore, the following issues should be considerable to determine green jobs that raised from the pilot survey. Including:

1. Concepts and definitions of environmental goods, services and process should be more clearly illustrated; or elaborated by examples.
2. Images and video records of various environmentally friendly technologies, activities, services, and equipment could be used for training of enumerators who would carry the data collection for green job survey;
3. It should be clearly specified that installation, and maintenance of environmentally friendly equipment to be included and counted as one of the environmental activities (either production of environmental goods and service; or environmentally friendly processes);
4. An employed person could be counted as both employed involved in production of environmental goods and service, and environmentally friendly processes, providing the activities she/he is performing met the criteria of environmental outputs and environmentally friendly processes;
5. Green Jobs module attached to the establishment survey should be cover all type of establishments, in all economic activities, including governmental agencies, financial institutions, health and educational institutions;
6. Practical guideline should be developed for the interviewers involved in the survey and cases and lesson learnt of the pilot survey should be reflect in the guideline.



ANNEX 1. LIST OF TABLES

TABLE 1a. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by category of environmental goods and services, and sex

Categories	Q4, 2014	Q1, 2016	Q2, 2016
	thous.persons		
TOTAL EMPLOYMENT	1 040.7	1 089.3	1 131.8
Energy from renewable sources	0.5	0.6	0.8
Energy efficient goods and services	2.8	1.4	2.2
Recycling and reuse of waste	15.3	20.0	26.9
Prevention, reduction and elimination of pollution and air emissions	17.9	13.6	17.7
Environmental protection and natural resources conservation	18.4	46.5	50.6
Organic agriculture	174.4	167.3	169.2
Environmental compliance, education and training, and public awareness	14.0	16.1	17.3

TABLE 16. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by categories of environmental goods and services

Categories	Q4, 2014	Q1, 2016	Q2, 2016
	thous.persons		
TOTAL EMPLOYMENT	1 040.7	1 089.3	1 131.8
Energy from renewable sources	125.9	188.8	162.8
Energy efficiency	61.3	134.4	131.4
Recovery, reuse and recycling of resources and/or substitution of natural resources	17.3	18.1	24.0
Prevention, reduction and elimination of pollution and air emissions	22.6	28.4	37.6
Environmental protection and natural resources conservation	21.8	32.3	43.7
Sustainable agricultural practices, including organic agriculture	176.0	159.0	174.4
Research, planning, maintenance and control of technologies	4.8	5.9	3.9



TABLE 2a. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by working time spent on the production of the environmental goods and services

Categories	Q4, 2014		Q1, 2016		Q2, 2016	
	#	%	#	%	#	%
	thous.persons					
Employment in production of environmental outputs	206.7	100.0	225.5	100.0	233.5	100.0
Less than 20%	109.9	53.1	104.6	46.4	130.8	56.0
Between 20% and 50%	48.6	23.5	82.6	36.6	71.1	30.4
More than 50%	48.3	23.4	38.3	17.0	31.6	13.5

TABLE 2b. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by working time spent on the environmentally friendly processes

Categories	Q4, 2014		Q1, 2016		Q2, 2016	
	#	%	#	%	#	%
	thous.persons					
Employment in environmentally friendly processes	260.3	100.0	342.1	100.0	341.5	100.0
Less than 20%	144.3	55.4	218.3	63.8	218.6	64.0
Between 20% and 50%	79.3	30.5	107.9	31.5	104.1	30.5
More than 50%	36.7	14.1	15.9	4.6	18.7	5.5



TABLE 3a. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by main economic activity

	Q4, 2014			Q1, 2016			Q2, 2016					
	Total empl		Env.outputs	Total empl		Env.outputs	Total empl		Env.outputs			
	#	%	#	%	#	%	#	%	#	%		
TOTAL	1 040.7	100.0	206.7	100.0	1 089.3	100.0	225.5	100.0	1 131.8	100.0	233.5	100.0
Agriculture, forestry, fishing & hunting	297.5	28.6	157.1	76.0	320.0	29.4	149.9	66.5	313.8	27.7	157.7	67.5
Mining & quarrying	36.0	3.5	-	-	34.8	3.2	3.3	1.5	37.3	3.3	6.2	2.7
Manufacturing	85.7	8.2	5.1	2.5	82.2	7.5	5.8	2.6	91.3	8.1	4.5	1.9
Electricity, gas, steam and air conditioning supply	14.6	1.4	1.3	0.6	15.1	1.4	1.9	0.8	17.2	1.5	1.7	0.7
Water supply; sewerage, waste management and remediation activities	5.3	0.5	5.3	2.6	4.8	0.4	4.8	2.1	9.0	0.8	9.0	3.9
Construction	76.9	7.4	2.3	1.1	73.1	6.7	1.6	0.7	78.2	6.9	2.7	1.1
Wholesale & retail trade, repair of motor vehicles and motorcycles	152.5	14.7	5.7	2.8	166.0	15.2	12.0	5.3	170.6	15.1	11.6	5.0
Transportation and storage	70.0	6.7	2.2	1.1	64.7	5.9	5.3	2.3	66.4	5.9	2.1	0.9
Accommodation and food service activities	38.7	3.7	1.6	0.8	28.1	2.6	1.3	0.6	35.9	3.2	2.2	0.9
Information & Communication	15.0	1.4	1.6	0.8	24.0	2.2	0.9	0.4	13.3	1.2	0.4	0.2
Financial and insurance activities	19.4	1.9	-	-	18.0	1.7	1.5	0.7	23.0	2.0	1.2	0.5
Real estate activities	0.8	0.1	-	-	0.5	0.0	-	-	0.5	0.0	-	-
Professional, scientific and technical activities	10.5	1.0	2.4	1.2	10.5	1.0	0.8	0.4	13.8	1.2	2.3	1.0
Administrative and support service activities	11.6	1.1	0.4	0.2	19.4	1.8	1.0	0.5	13.9	1.2	0.9	0.4
Public administration and defence; compulsory social insurance	57.5	5.5	4.1	2.0	69.4	6.4	11.1	4.9	75.5	6.7	7.3	3.1
Education	82.9	8.0	13.9	6.7	86.2	7.9	20.0	8.9	97.8	8.6	20.2	8.7
Human health and social work activities	32.9	3.2	1.7	0.8	37.8	3.5	2.9	1.3	43.6	3.9	2.0	0.9
Arts, entertainment and recreation	10.1	1.0	0.9	0.5	12.6	1.2	0.8	0.3	7.2	0.6	0.8	0.3
Other service activities	20.7	2.0	0.9	0.4	21.0	1.9	0.6	0.3	20.9	1.8	0.8	0.3
Activities of households as employers	0.8	0.1	-	-	0.4	-	-	-	1.7	0.2	-	-
Activities of extraterritorial organizations and bodies	1.0	0.1	-	-	0.9	0.1	-	-	1.0	0.1	-	-

TABLE 3b. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by main economic activity

	Q4, 2014						Q1, 2016						Q2, 2016					
	Total empl			Env.process			Total empl			Env.process			Total empl			Env.process		
	#	%	thous.persons	#	%	thous.persons	#	%	thous.persons	#	%	thous.persons	#	%	thous.persons	#	%	thous.persons
TOTAL	1 040.7	100.0	260.3	100.0	1 089.3	100.0	342.1	100.0	342.1	100.0	1 131.8	100.0	341.5	100.0	100.0	341.5	100.0	100.0
Agriculture, forestry, fishing & hunting	297.5	28.6	194.3	74.6	320.0	29.4	227.9	66.6	227.9	66.6	313.8	27.7	208.4	61.0	208.4	61.0	61.0	61.0
Mining & quarrying	36.0	3.5	4.9	1.9	34.8	3.2	7.6	2.2	7.6	2.2	37.3	3.3	10.1	3.0	10.1	3.0	3.0	3.0
Manufacturing	85.7	8.2	7.2	2.8	82.2	7.5	11.4	3.3	11.4	3.3	91.3	8.1	12.2	3.6	12.2	3.6	3.6	3.6
Electricity, gas, steam and air conditioning supply	14.6	1.4	1.9	.7	15.1	1.4	4.1	1.2	4.1	1.2	17.2	1.5	4.7	1.4	4.7	1.4	1.4	1.4
Water supply; sewerage, waste management and remediation activities	5.3	.5	5.0	1.9	4.8	.4	4.8	1.4	4.8	1.4	9.0	.8	9.0	2.6	9.0	2.6	2.6	2.6
Construction	76.9	7.4	2.9	1.1	73.1	6.7	2.9	.8	2.9	.8	78.2	6.9	4.7	1.4	78.2	6.9	4.7	1.4
Wholesale & retail trade, repair of motor vehicles and motorcycles	152.5	14.7	12.1	4.6	166.0	15.2	18.7	5.5	18.7	5.5	170.6	15.1	22.5	6.6	170.6	15.1	22.5	6.6
Transportation and storage	70.0	6.7	4.4	1.7	64.7	5.9	8.6	2.5	8.6	2.5	66.4	5.9	5.6	1.6	66.4	5.9	5.6	1.6
Accommodation and food service activities	38.7	3.7	4.1	1.6	28.1	2.6	3.0	.9	3.0	.9	35.9	3.2	5.5	1.6	35.9	3.2	5.5	1.6
Information & Communication	15.0	1.4	1.9	.7	24.0	2.2	2.4	.7	2.4	.7	13.3	1.2	1.3	.4	13.3	1.2	1.3	.4
Financial and insurance activities	19.4	1.9	.9	.4	18.0	1.7	2.4	.7	2.4	.7	23.0	2.0	3.5	1.0	23.0	2.0	3.5	1.0
Real estate activities	.8	.1	-	-	.5	.0	-	-	-	-	.5	.0	-	-	.5	.0	-	-
Professional, scientific and technical activities	10.5	1.0	2.1	.8	10.5	1.0	2.0	.6	2.0	.6	13.8	1.2	4.0	1.2	13.8	1.2	4.0	1.2
Administrative and support service activities	11.6	1.1	.2	.1	19.4	1.8	1.3	.4	1.3	.4	13.9	1.2	1.3	.4	13.9	1.2	1.3	.4
Public administration and defence; compulsory social insurance	57.5	5.5	3.7	1.4	69.4	6.4	15.7	4.6	15.7	4.6	75.5	6.7	15.3	4.5	75.5	6.7	15.3	4.5
Education	82.9	8.0	9.3	3.6	86.2	7.9	19.8	5.8	19.8	5.8	97.8	8.6	22.3	6.5	97.8	8.6	22.3	6.5
Human health and social work activities	32.9	3.2	3.3	1.3	37.8	3.5	5.6	1.6	5.6	1.6	43.6	3.9	7.8	2.3	43.6	3.9	7.8	2.3
Arts, entertainment and recreation	10.1	1.0	.9	.3	12.6	1.2	1.3	.4	1.3	.4	7.2	.6	1.4	.4	7.2	.6	1.4	.4
Other service activities	20.7	2.0	.9	.3	21.0	1.9	2.6	.8	2.6	.8	20.9	1.8	1.6	.5	20.9	1.8	1.6	.5
Activities of households as employers	.8	.1	.2	.1	.4	.0	-	-	-	-	1.7	.2	-	-	1.7	.2	-	-
Activities of extraterritorial organizations and bodies	1.0	.1	-	-	.9	.1	.3	.1	.3	.1	1.0	.1	.3	.1	1.0	.1	.3	.1

TABLE 4a. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by occupational category

Occupation	Q4, 2014			Q1, 2016			Q2, 2016					
	Total em- ployment		Env. outputs thous. persons	Total em- ployment		Env. outputs thous. persons	Total em- ployment		Env. outputs thous. persons			
	#	%		#	%		#	%				
	#	%	#	%	#	%	#	%				
TOTAL	1 040.7	100.0	206.7	100.0	1 089.3	100.0	225.5	100.0	1 131.8	100.0	233.5	100.0
Managers	59.5	5.7	4.3	2.1	67.5	6.2	6.3	2.8	76.6	6.8	9.4	4.0
Professionals	154.3	14.8	21.7	10.5	179.7	16.5	23.8	10.5	187.5	16.6	26.1	11.2
Technicians and associate professionals	24.3	2.3	0.9	0.4	25.5	2.3	4.5	2.0	31.8	2.8	4.9	2.1
Clerical support workers	33.3	3.2	1.3	0.6	29.6	2.7	1.9	0.8	31.5	2.8	1.5	0.6
Service and sales workers	183.1	17.6	8.3	4.0	192.2	17.6	14.7	6.5	187.7	16.6	13.6	5.8
Skilled agricultural, forestry and fishery workers	292.2	28.1	154.6	74.8	317.2	29.1	150.4	66.7	308.9	27.3	155.6	66.6
Craft and related trades workers	117.4	11.3	4.7	2.3	112.7	10.3	4.9	2.2	124.8	11.0	5.8	2.5
Plant and machine operators, and assemblers	95.2	9.1	4.9	2.4	90.5	8.3	7.2	3.2	94.3	8.3	5.1	2.2
Elementary occupations	76.1	7.3	5.8	2.8	70.9	6.5	11.4	5.0	83.9	7.4	11.3	4.8
Armed forces occupations	5.3	0.5	0.3	0.1	3.6	0.3	0.4	0.2	4.8	0.4	0.2	0.1

TABLE 4b. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by occupational category

Occupation	Q4, 2014				Q1, 2016				Q2, 2016			
	Total em- ployment		Env.process		Total em- ployment		Env.process		Total em- ployment		Env.process	
	#	%	#	%	#	%	#	%	#	%	#	%
TOTAL	1 040.7	100.0	260.3	100.0	1 089.3	100.0	342.1	100.0	1 131.8	100.0	341.5	100.0
Managers	59.5	5.7	6.2	2.4	67.5	6.2	11.1	3.2	76.6	6.8	14.7	4.3
Professionals	154.3	14.8	17.3	6.6	179.7	16.5	27.1	7.9	187.5	16.6	36.3	10.6
Technicians and associate professionals	24.3	2.3	1.6	0.6	25.5	2.3	5.6	1.6	31.8	2.8	9.7	2.8
Clerical support workers	33.3	3.2	1.9	0.7	29.6	2.7	3.7	1.1	31.5	2.8	5	1.5
Service and sales workers	183.1	17.6	16.4	6.3	192.2	17.6	23.6	6.9	187.7	16.6	25.9	7.6
Skilled agricultural, forestry and fishery workers	292.2	28.1	192.7	74.0	317.2	29.1	227	66.3	308.9	27.3	205.8	60.3
Craft and related trades workers	117.4	11.3	8	3.1	112.7	10.3	13.5	3.9	124.8	11.0	16.1	4.7
Plant and machine operators, and assemblers	95.2	9.1	7.2	2.8	90.5	8.3	12.1	3.5	94.3	8.3	10.2	3.0
Elementary occupations	76.1	7.3	9	3.4	70.9	6.5	16.9	4.9	83.9	7.4	16.8	4.9
Armed forces occupations	5.3	0.5	0.2	0.1	3.6	0.3	1.4	0.4	4.8	0.4	0.9	0.3

thous.persons

TABLE 5a. EMPLOYMENT IN PRODUCTION OF ENVIRONMENTAL OUTPUTS, by employment status

Employment status	Q4, 2014			Q1, 2016			Q2, 2016			
	Total em- ployment		Env. outputs	Total em- ployment		Env. outputs	Total em- ployment		Env. outputs	
	#	%		#	%		#	%		
TOTAL	1 040.7	100.0	206.7	100.0	1 089.3	100.0	225.5	100.0	233.5	100.0
Paid employee on contract or under civil law	513.8	49.4	40.5	19.6	535.8	49.2	64.0	28.4	621.5	54.9
Employer	16.4	1.6	1.7	0.8	15.2	1.4	1.4	0.6	19.6	1.7
Self employer	212.6	20.4	15.3	7.4	207.1	19.0	16.4	7.3	165.7	14.6
Member of cooperative	1.2	0.1	0.0	0.0	1.1	0.1	0.0	0.0	0.4	0.0
Employed in animal husbandry	266.8	25.6	146.6	70.9	301.4	27.7	141.0	62.5	287.8	25.4
Unpaid family worker	29.7	2.9	2.6	1.3	28.3	2.6	2.8	1.2	35.7	3.2
Other	0.3	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.0	0.1

TABLE 5b. EMPLOYMENT IN ENVIRONMENTALLY FRIENDLY PROCESSES, by employment status

Employment status	Q4, 2014			Q1, 2016			Q2, 2016			
	Total em- ployment		Env. process	Total em- ployment		Env. process	Total em- ployment		Env. process	
	#	%		#	%		#	%		
БҮГД	1 040.7	100.0	260.3	100.0	1 089.3	100.0	342.1	100.0	341.5	100.0
Paid employee on contract or under civil law	513.8	49.4	48.7	18.7	535.8	49.2	83.0	24.3	621.5	54.9
Employer	16.4	1.6	1.9	0.7	15.2	1.4	2.9	0.9	19.6	1.7
Self employer	212.6	20.4	19.0	7.3	207.1	19.0	34.8	10.2	165.7	14.6
Member of cooperative	1.2	0.1	0.5	0.2	1.1	0.1	0.2	0.1	0.4	0.0
Employed in animal husbandry	266.8	25.6	173.2	66.5	301.4	27.7	217.7	63.6	287.8	25.4
Unpaid family worker	29.7	2.9	17.0	6.5	28.3	2.6	3.5	1.0	35.7	3.2
Other	0.3	0.0	-	-	0.4	0.0	-	-	1.0	0.1

TABLE 6. EMPLOYMENT IN ENVIRONMENTAL SECTOR, by status in employment

Employment status	Q4, 2014		Q1, 2016		Q2, 2016	
	Total em- ployment	Environmen- tal sector	Total em- ployment	Environmen- tal sector	Total em- ployment	Environmen- tal sector
	#	%	#	%	#	%
TOTAL	1 040.7	292.2	1 089.3	372.0	1 131.8	374.1
Paid employee on contract or under civil law	513.8	64.0	535.8	105.3	621.5	121.3
Employer	16.4	2.1	15.2	3.0	19.6	6.2
Self employer	212.6	24.0	207.1	35.8	165.7	32.7
Member of cooperative	1.2	0.5	1.1	0.2	0.4	0.4
Employed in animal husbandry	266.8	184.5	301.4	224.1	287.8	200.9
Unpaid family worker	29.7	17.0	28.3	3.5	35.7	11.6
Other	0.3	0.0	0.4	0.0	1.0	1.0

TABLE 7. PAID EMPLOYEES IN ENVIRONMENTAL SECTOR, by social security coverage

	Q4, 2014		Q1, 2016		Q2, 2016	
	Total em- ployment	Employment in environ- mental sector	Total em- ployment	Employment in environ- mental sector	Total em- ployment	Employment in environ- mental sector
	#	%	#	%	#	%
TOTAL	513.8	100.0	535.8	100.0	621.5	100.0
Covered	441.3	85.9	459.8	85.8	525.7	84.6
Not covered	72.1	14.0	74.5	13.9	90.7	14.6
Unknown	0.3	0.1	1.5	0.3	5.1	0.8



TABLE 8. GREEN JOBS, by age group

Age group	Q4, 2014				Q1, 2016				Q2, 2016			
	Total em- ployment		Green jobs		Total em- ployment		Green jobs		Total em- ployment		Green jobs	
	thous.persons											
	#	%	#	%	#	%	#	%	#	%	#	%
TOTAL	1 040.7	100.0	58.7	100.0	1 089.3	100.0	96.2	100.0	1 131.8	100.0	112.3	100.0
15-24	93.5	9.0	3.9	6.6	88.6	8.1	6.2	6.5	93.1	8.2	4.2	3.7
25-34	297.2	28.6	17.0	28.9	320.6	29.4	27.3	28.4	331.2	29.3	38.6	34.3
35-44	341.6	32.8	21.6	36.8	342.7	31.5	31.4	32.6	344.6	30.4	37.2	33.1
45-54	241.5	23.2	14.4	24.5	252.2	23.2	25.8	26.8	274.4	24.2	26.9	24.0
55-64	54.6	5.2	1.9	3.2	75.5	6.9	5.2	5.4	73.6	6.5	5.4	4.8
65+	12.4	1.2	0.0	0.0	9.8	0.9	0.3	0.3	14.9	1.3	0.0	0.0

TABLE 9. GREEN JOBS, by occupational category

Occupation	Q4, 2014	Q1, 2016	Q2, 2016
	thous.persons		
TOTAL	58.7	96.2	112.3
Managers	5.6	9.6	11.4
Professionals	27.8	37.5	46.8
Technicians and associate professionals	1.6	6.3	9.0
Clerical support workers	2.3	4.1	5.0
Service and sales workers	5.2	9.1	9.3
Skilled agricultural, forestry and fishery workers	1.0	3.0	1.7
Craft and related trades workers	3.7	5.4	7.1
Plant and machine operators, and assemblers	4.5	6.3	7.0
Elementary occupations	6.6	13.7	14.1
Armed forces occupations	0.5	1.2	0.9



TABLE 10. GREEN JOBS, by level of education

Level of education	Q4, 2014	Q1, 2016	Q2, 2016
	thous.persons		
TOTAL	58.7	96.2	112.3
None	0.7	0.1	0.0
Primary	0.2	0.3	1.3
Secondary	2.5	4.2	4.3
High school	4.3	10.9	11.4
Technical vocational	11.2	18.3	20.9
Specialized secondary	8.6	12.1	12.3
Undergraduate	29.4	47.9	58.3
Master	1.2	2.4	4.0
Ph. Doctor	0.6	0.0	0.0

TABLE 11. GREEN JOBS, by main economic activity

	Q4, 2014	Q1, 2016	Q2, 2016
	thous.persons		
TOTAL	58.7	96.2	112.3
Agriculture, forestry, fishing & hunting	2.5	1.7	3.5
Mining & quarrying	3.8	7.1	10.6
Manufacturing	4.3	6.5	4.9
Electricity, gas, steam and air conditioning supply	2.5	4.3	5.2
Water supply; sewerage, waste management and remediation activities	5.0	3.9	6.9
Construction	0.5	2.3	3.0
Wholesale & retail trade, repair of motor vehicles and motorcycles	2.7	3.2	3.3
Transportation and storage	1.8	2.5	1.5
Accommodation and food service activities	1.5	0.7	1.9
Information & Communication	1.4	2.9	1.3
Financial and insurance activities	0.9	2.6	3.2
Professional, scientific and technical activities	2.6	0.5	3.3
Administrative and support service activities	0.4	1.6	1.3
Public administration and defence; compulsory social insurance	5.9	18.6	17.9
Education	18.2	29.5	34.0
Human health and social work activities	3.5	6.2	8.4
Arts, entertainment and recreation	1.0	1.1	1.5
Other service activities	0.2	0.6	0.4
Activities of households as employers	0.0	0.3	0.3



TABLE 13. ENTITIES ACTIVE IN THE ENVIRONMENTAL SECTORS, by type of environmental activity in 2014

Environmental activity		No. of enterprises	% of all enterprises
		1	2
Production of environmental goods and services			
No. of enterprises that were engaged, during the previous 12 months, in the production of at least in one of the following categories of environmental goods and services intended for consumption outside their worksite		1 320	22.4
Out of which, in	1. Energy from renewable sources	31	0.5
	2. Energy efficient goods and services	106	1.8
	3. Recycling and reuse of waste	71	1.2
	4. Prevention, reduction and elimination of pollution and air emissions	592	10.0
	5. Environmental protection and natural resources conservation	903	15.3
	6. Organic agriculture	176	3.0
	7. Environmental compliance, education and training, and public awareness	350	5.9
	8. Other	315	5.3
Environmentally friendly processes			
No. of enterprises that, during the month of Dec. 2014 were engaged in the production of any environmental goods and services for consumption within their worksite or were involved in using technologies and practices aiming at reducing or eliminating pressures of their activities on the environment or to make more efficient use of natural resources		1 499	25.4
Out of which, in	1. Energy from renewable sources	108	1.8
	2. Energy efficiency	610	10.3
	3. Recovery, reuse and recycling of resources and/or substitution of natural resources	87	1.5
	4. Prevention, reduction and elimination of pollution and air emissions	686	11.6
	5. Environmental protection and natural resources conservation	1 041	17.7
	6. Sustainable agricultural practices, including organic agriculture	200	3.4
	7. Research, planning, maintenance and control of technologies	144	2.4
	8. Other environmentally friendly technologies and practices	112	1.9

TABLE 14. ENTITIES IN THE PRODUCTION OF ENVIRONMENTAL OUTPUTS, by main economic activity in 2014

Economic activity	Enterprises in the production of environmental outputs			WITH revenues from the production environmental outputs			WITH NO revenues from the production of environmental outputs			% of employed that work on production of environmental outputs
	No. of enterprises		No. of employed (thousand)	No. of enterprises	No. of employed (thousand)	average % of revenues	No. of enterprises	No. of employed (thousand)		
	1	2							3	
Total	1 320	65.9	121	3.8	64.1	1 199	62.1	52.6		
Agriculture, forestry and fishing	422	3.2	75	0.4	76.2	347	2.8	69.5		
Mining and quarrying	59	18.0	1	0.0	50.0	58	18.0	20.4		
Manufacturing	134	12.4	11	0.4	54.5	123	12.1	40.6		
Electricity, gas, steam and air conditioning supply	71	11.6	5	1.5	50.2	66	10.1	32.0		
Water supply; sewerage, waste management and remediation activities	101	2.9	4	0.3	68.8	97	2.6	51.9		
Construction	56	8.8	4	0.4	11.3	52	8.3	21.2		
Wholesale and retail trade; repair of motor vehicles and motorcycles	52	3.1	7	0.7	61.7	45	2.4	52.3		
Transportation and storage	9	0.2	1	0.1	10.0	8	0.1	51.5		
Accommodation and food service activities	48	0.7	-	-	-	48	0.7	32.6		
Information and communication	19	1.7	-	-	-	19	1.7	54.6		
Financial and insurance activities	7	0.1	-	-	-	7	0.1	74.3		
Real estate activities	7	0.0	-	-	-	7	0.0	35.0		
Professional, scientific and technical activities	133	1.0	2	0.0	25.0	131	1.0	60.1		
Administrative and support service activities	44	0.6	5	0.0	40.0	39	0.6	50.3		
Education	96	0.7	3	0.0	8.3	93	0.7	49.3		
Arts, entertainment and recreation	5	0.2	-	-	-	5	0.2	64.0		
Other service activities	57	0.9	3	0.1	33.3	54	0.8	52.4		

TABLE 15. ENTITIES INVOLVED IN ENVIRONMENTALLY FRIENDLY PROCESSES, by main economic activity in 2014

Economic activity	No. of enterprises in the environmentally friendly processes	No of employed in enterprises (that reported environmentally friendly processes), thousand	No of employed in enterprises (that reported environmentally friendly processes) and spend more than half of their working time, thousand
	1	2	3
Total	1 499	85.6	0.9
Agriculture, forestry and fishing	363	2.1	0.2
Mining and quarrying	60	15.9	0.1
Manufacturing	149	13.5	0.3
Electricity, gas, steam and air conditioning supply	63	10.3	0.2
Water supply; sewerage, waste management and remediation activities	102	3.0	0.0
Construction	64	12.9	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles	107	11.1	0.0
Transportation and storage	25	2.2	0.0
Accommodation and food service activities	90	3.1	0.0
Information and communication	43	6.6	0.0
Financial and insurance activities	11	0.1	0.0
Real estate activities	10	0.3	0.0
Professional, scientific and technical activities	179	1.3	0.0
Administrative and support service activities	36	0.9	0.0
Education	125	0.7	0.0
Human health and social work activities	1	0.0	-
Arts, entertainment and recreation	9	0.8	-
Other service activities	62	0.8	0.0

TABLE 16. ENTITIES INVOLVED IN PRODUCTION OF ENVIRONMENTAL OUTPUTS AND ENVIRONMENTALLY FRIENDLY PROCESSES, by main economic activity in 2014

Economic activity	Total number of enterprises and employees in the green job survey		Environmental sector		Production of environmental outputs		Environmentally friendly processes	
	No. of enterprises	No. of employed, thous.emp	No. of enterprises	No. of employed, thous.emp	No. of enterprises	No. of employed, thous.emp	No. of enterprises	No. of employed, thous.emp
	1	2	3	4	5	6	7	8
Total	5 898	230.6	1 894	106.8	1 320	65.9	1 499	85.6
Agriculture, forestry and fishing	986	6.2	503	3.6	422	3.2	363	2.1
Mining and quarrying	212	49.7	77	24.9	59	18.0	60	15.9
Manufacturing	676	39.4	188	18.9	134	12.4	149	13.5
Electricity, gas, steam and air conditioning supply	177	15.8	82	12.5	71	11.6	63	10.3
Water supply; sewerage, waste management and remediation activities	118	5.7	107	3.2	101	2.9	102	3.0
Construction	391	24.0	90	13.7	56	8.8	64	12.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	462	24.3	123	11.4	52	3.1	107	11.1
Transportation and storage	248	22.9	30	2.2	9	0.2	25	2.2
Accommodation and food service activities	312	7.6	106	3.4	48	0.7	90	3.1
Information and communication	171	11.4	47	6.7	19	1.7	43	6.6
Financial and insurance activities	93	0.9	14	0.1	7	0.1	11	0.1
Real estate activities	62	1.4	13	0.3	7	0.0	10	0.3
Professional, scientific and technical activities	708	6.3	195	1.4	133	1.0	179	1.3
Administrative and support service activities	232	5.6	53	1.2	44	0.6	36	0.9
Education	541	2.5	162	1.0	96	0.7	125	0.7
Human health and social work activities	6	0.1	1	0.0	-	-	1	0.0
Arts, entertainment and recreation	60	1.2	11	0.9	5	0.2	9	0.8
Other service activities	442	5.5	92	1.4	57	0.9	62	0.8
Activities of extraterritorial organizations and bodies	1	0.0	-	-	-	-	-	-

TABLE 17. ENTITIES INVOLVED IN ENVIRONMENTALLY FRIENDLY PROCESSES, by occupational category (for those spending more than 50% of their time on environmentally friendly processes) in 2014

Occupational category	No. of entities		Number of employed, persons
	1	2	
Managers	412	985	
Professionals	53	137	
Technicians and associate professionals	120	305	
Clerical support workers	41	196	
Service and sales workers	8	53	
Skilled agricultural, forestry and fishery workers	27	28	
Craft and related trades workers	25	43	
Plant and machine operators, and assemblers	81	88	
Elementary occupations	24	37	
Энгийн ажил, мэргэжил	33	98	

TABLE 18. PERCEPTIONS AND EXPECTATIONS

Indicators	No. of entities in the environmental sector	
	Yes	No
	1	2
1. Do you think that demand for environmental goods and services will increase?	867	632
2. Do you think possible enlargement of investments in green technologies would ensure profitability in medium and longer term?	778	721
3. What obstacles do you face in the way of implementing "green" practices at your workplace?		
3.1. Shortage of workers with the knowledge or skills in environmental activities/practices	572	927
3.2. Shortage of available training programs	368	1 131
3.3. Costs of implementation	471	1 028
3.4. Uncertain return on investment or too long payback period for green technologies	289	1 210
3.5. Uncertain demand from the market	243	1 256
3.6. Lack of information	391	1 108
3.7. Government policies/regulations (not providing incentives to greening)	320	1 179
3.8. Insufficient access to existing subsidies and fiscal incentives	292	1 207
3.9. Other environmental goods and services	141	1 358
4. What resources would help reduce or eliminate the creation or release of pollutants (e.g. CO2 emissions) at your enterprise?		
4.1. Information about specific actions to take to cost-effectively reduce air emissions	644	855
4.2. Success stories showing how similar businesses cost-effectively reduce their CO2 emissions	262	1 237
4.3. Financing options to reduce air emissions	414	1 085
4.4. State-wide award program to recognize businesses that successfully reduce air emissions	387	1 112
4.5. Protocol for reporting air emissions	337	1 162
4.6. Technical support (e.g. training and online questions and answers)	317	1 182
4.7. Other resources	146	1 353
5. Do you find the level of environmental sensitivity of workers satisfactory?	500	999
6. Does your enterprise's executive leadership places high priority on environmental sustainability?	797	702
7. Do you find the definition of employment in environmental sectors satisfactory?	458	1 041

Annex 2. Questionnaire form for IFS

IX. EMPLOYMENT ON ENVIRONMENTAL SECTOR (Please ask the following questions from employed member of household member.)

Part 1: Employment in production of environmental outputs (to be completed for employed household members)

143. During the last month were you involved in production in any of the following categories of environmental goods and services intended for consumption outside your workplace. These goods and services include research and development, installation, and maintenance services?

ID No.	Energy from renewable sources	Energy efficient goods and services	Recycling and reuse of waste	Prevention, reduction and elimination of pollution and air emissions	Environmental protection and natural resources conservation	Organic agriculture	Environmental administration, compliance, training and teaching, and public awareness	Other	During the last month what percentage of your working time did you spend on the production of the environmental goods and services reported in 143a-143j?
	143a	143b	143c	143d	143e	143f	143g	143h	144
1								143j	
2									
3									
4									
5									
6									
7									
8									
9									
10									

Description	
143a	- Product and service that generate electricity, heat, or fuel from renewable sources (e.g. wind, solar, biomass, solid waste, hydroelectric sources, etc.) - Product and service that manufacturing of wind turbine equipment, solar heating equipment, photovoltaic energy equipment, biomass-fired industrial boilers, etc.
143b	Goods and services that - reduce energy consumption (e.g. energy-efficient manufacturing equipment, electrical appliances, buildings and vehicles; energy-efficient lighting, including their maintenance and servicing) - improve the energy efficiency of buildings and the efficiency of energy storage and distribution (such as Smart Grid technologies)
143c	Product and services that - are reducing the withdrawals of natural resources that - reuse, collect, sort, recycle, remanufacture waste material (metal, paper, glass, etc.) - compost solid waste (waste management facilities), - manufacturing of containers for collection of recycled materials, waste bags, and equipment for waste collection and waste treatment, - sale of second hand clothing, appliances, books, vehicles.
143d	Goods and services that - reduce or eliminate the creation of pollutants, toxic components or waste materials (e.g. water and sewage treatment plants, equipment for treatment of industrial waste water and sewage), - remove pollutants and hazardous waste from environment, - are used to eliminate pollution (e.g. manufacture of waste gas absorbers, waste gas flare/incinerator, catalytic converters, pollutant recovery condensers, filters, absorbers, more-efficient wood-burning stoves, rechargeable batteries, etc.)
143e	Product and services that protect air, soil, water, aquatic resources, timber resources, mineral resources, biodiversity and landscapes (includes growing and planting trees for reforestation, ecotourism) - land and water management - and control the quality of air, water, soil
143f	Agricultural products (crops, vegetables, fruits, meat, dairy products, cotton, wool) produced without or with very limited use of chemical fertilizers and pesticides; plant growth regulators such as hormones and/or antibiotic use in livestock; genetically modified organisms; artificial insemination, etc.
143g	Goods and services that - enforce environmental regulations and standards, - provide education and training related to green technologies and practices, - increase public awareness of environmental issues.
143h	Other environmental goods and services (that are beneficial for the environment or conserve natural resources) (not mentioned previously)
143i	
144	To be completed only if „yes“ to at least one category of environmental goods and services in 143a to 143j.



IX. EMPLOYMENT ON ENVIRONMENTAL SECTOR (Please ask the following questions from employed member of household member.)

Part 2: Employment in environmental processes (to be completed for employed household members)

145. During the last months, did you use one or more of the following environmental technologies and practices at your workplace in order to reduce the environmental impact of your production unit/economic units/establishment, or to train your co-workers or employees/contractors in these technologies or practices?

ID No.	(continued)									
	Energy from renewable sources	Energy efficiency	Recovery, reuse and recycling of resources and/or substitution of natural resources	Prevention, reduction and elimination of pollution and air emissions	Environmental protection and natural resources conservation	Sustainable agricultural practices, including organic agriculture	Research, planning, maintenance and control of technologies	Other	During the last month what percentage of your time did you spend in researching, developing, maintaining, using or installing technologies and practices reported in 145a-145j? Should be ask if "yes" to at least one category of environmental goods and services in 145a to 145j.	
	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	Yes - 1 No - 2	1-less than 20%, 2-between 20 and 50 %, 3-more than 50%
	145a	145b	145c	145d	145e	145f	145g	145h	145j	146
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
Description										
145a	Generate electricity, heat or fuel from renewable sources for use within your establishment (Electric power production from wind, solar, biomass, solid waste, hydroelectric sources, etc.)									
145b	Use technologies and practices to increase energy efficiency within your establishment (e.g. use energy efficient appliances, manufacturing equipment, lighting, energy efficient buildings, use of alternative fuel vehicles (Fuel cells/advanced batteries, hybrid vehicles, etc.)									
145c	Use technologies or practices to reduce the withdrawals of natural resources, or eliminate the creation of waste material as a result of your operations (e.g. collecting and reusing or recycling of glass, metals, paper, rubber, textiles) and waste water; composting solid waste; remanufacturing of waste material, etc.) Use technologies or practices									
145d	- to reduce or eliminate the creation or release of pollutants or toxic components as a result of your operations and/or - to remove pollutants and hazardous waste from environment (e.g. carbon monoxide, sulphur dioxide, nitrogen oxides, herbicides and pesticides, heavy metals, radioactive contamination, etc.).									
145e	Use technologies or practices in your operations that ensure - protection and remediation of soil, groundwater and surface water; - reduce water or other resource consumption (including by using rain water); - protection of biodiversity and landscapes; - protection and remediation of timber resources (includes sustainable forestry practices); - protection and remediation of aquatic resources, etc.									
145f	Use of agricultural practices that do not cause long-term damage to soil (e.g. excessive tilling of the soil and irrigation without adequate drainage), cultivating crops, vegetables, fruits, animals without or with very limited use of chemical fertilizers and pesticides, plant growth regulators such as hormones and/or antibiotic use in livestock; genetically modified organisms; artificial insemination, etc.									
145g	Research and development of processes to conserve energy or natural resources or to reduce pollution; - planning, implementing, and monitoring of these processes; - maintaining or installing equipment or infrastructure associated with the processes; - measuring and controlling outputs of the process.									
145h	Other environmentally friendly technologies and practices not mentioned previously									
145j	To be completed only if "yes" to at least one category of environmental processes in 145a to 145j.									

Annex 3. Questionnaire form for enterprise survey

X. EMPLOYMENT IN THE ENVIRONMENTAL SECTOR

No.	Question	Answer	Step
Part 1: Employment in production of environmental outputs			
(During the last 12 months up to 31 December 2014 did your establishment produce, design, and manufacture any of the following categories of environmental goods and services intended for sale or transfer within your company?)			
1	Has your enterprise been produced an equipments for renewable energy? (e.g. production of electric power from renewable energy such as wind, solar, biomass, solid waste, hydroelectric sources, etc.); manufacturing of wind turbine equipment, solar heating equipment, photovoltaic energy equipment, biomass-fired industrial boilers, etc.)	Yes 1 No 2	Please move to Part 2, if questions 1 to 9 answered as "2".
2	Has your enterprise been produced energy efficient goods and services? (e.g. energy efficient manufacturing equipment, electrical appliances, buildings and vehicles; energy efficient lighting, including their maintenance and servicing; improve the energy efficiency of buildings and the efficiency of energy storage and distribution such as Smart Grid technologies)	Yes 1 No 2	
3	Has your enterprise been engaged recycling and reuse of waste that are reducing the withdrawals of natural resources? (e.g. reuse, collect, sort, recycle, remanufacture waste material (metal, paper, glass, etc.); compost solid waste (waste management facilities); manufacturing of containers for collection of recycled materials, waste bags, and equipment for waste collection and waste treatment; sale of second hand clothing, appliances, books, vehicles)	Yes 1 No 2	
4	Has your enterprise engaged the production or service to prevent, reduce and eliminate of the pollution and air emissions that reduce or eliminate the creation of pollutants, toxic components, or waste materials and remove pollutants and hazardous waste from environment? (e.g. water and sewage treatment plants, equipment for treatment of industrial waste water and sewage; manufacture of waste gas absorbers, waste gas flare/incinerator, catalytic converters, pollutant recovery condensers, filters, absorbers, more-efficient wood-burning stoves, rechargeable batteries)	Air pollution A Water pollution B Other C (describe)	
5	Environmental protection and natural resources conservation (e.g. protect air, soil, water, aquatic resources, timber resources, water resources, mineral resources, biodiversity and landscapes which includes growing and planting trees for reforestation; ecotourism; land and water management; monitor and control the quality of air, water, soil; research and development on environmental protection)	Air A Soil B Water resources C Timber resources D Mineral resources E Biodiversity F	
6	Organic agriculture (e.g. agricultural products (crops, vegetables, fruits, meat, dairy products, cotton, and wool) produced without or with very limited use of chemical fertilizers and pesticides, plant growth regulators such as hormones; antibiotic use in livestock; genetically modified organisms; artificial insemination)	Yes 1 No 2	
7	Environmental administration, compliance, training and teaching, and public awareness (e.g. enforce environmental regulations and standards; provide education and training related to green technologies and practices; increase public awareness of environmental issues)	Yes 1 No 2	
8	Has your enterprise sold any equipment which is identified in list of the equipments that to reduce use of natural resources, environmental pollution and waste ?	Yes 1 No 2	
9	Has your enterprise involved to other environmental goods and services not mentioned previously? (these are beneficial for the environment or conserve natural resources that not mentioned previously)	Yes 1 No 2	
10	In the last 12 months up to 31 Dec.2014 did your establishment have any revenues from the sale (including market value of goods and services rendered for transfer within your company) of environmental goods and services checked "yes" in rows 1-9?	Yes 1 No 2	
11	(If "Yes" to question 10) What percentage of this establishment sales revenues during the last 12 months came from sales of environmental goods and services checked "yes" in rows 1-8?	<input type="text"/> %	
12	(If "No" to row 9) What percentage of employed in this establishment primarily works on production of environmental goods and services checked "yes" in rows 1-8?	<input type="text"/> %	

No.	Question	Answer	Step
Part 2: Employment in environmental processes			
13	Energy from renewable sources <i>/Generate electricity, heat or fuel from renewable sources for use within your establishment (Electric power production from wind, solar, biomass, solid waste, hydroelectric sources, etc.)/</i>	Yes 1 No 2	
14	Energy efficiency <i>/Use technologies and practices to increase energy efficiency within your establishment (e.g. use energy efficient appliances, manufacturing equipment, lighting, energy efficient buildings, use of alternative fuel vehicles (Fuel cells/advanced batteries, hybrid vehicles, etc.)/</i>	Yes 1 No 2	
15	Recovery, reuse and recycling of resources and/or substitution of natural resources <i>/Use technologies or practices to reduce the withdrawals of natural resources, or eliminate the creation of waste material as a result of your operations (e.g. collecting and reusing or recycling of glass, metals, paper, rubber, textiles) and waste water; composting solid waste, remanufacturing of waste material, etc./</i>	Yes 1 No 2	
16	Prevention, reduction and elimination of pollution and air emissions <i>/Use technologies or practices - to reduce or eliminate the creation or release of pollutants or toxic components as a result of your operations and/or - to remove pollutants and hazardous waste from environment (e.g. carbon monoxide, sulphur dioxide, nitrogen oxides, herbicides and pesticides, heavy metals, radioactive contamination, etc.)/</i>	air emissions A water pollution B other C (write)	
17	Environmental protection and natural resources conservation <i>/Use technologies or practices in your operations that ensure - protection and remediation of soil, groundwater and surface water; - reduce water or other resource consumption (including by using rain water); - protection of biodiversity and landscapes; - protection and remediation of timber resources (includes sustainable forestry practices); - protection and remediation of aquatic resources; etc./</i>	air A soil B water C timber D mineral E bio diversity F	
18	Sustainable agricultural practices, including organic agriculture <i>/Use agricultural practices that do not cause long-term damage to soil (e.g. excessive tilling of the soil and irrigation without adequate drainage), cultivating crops, vegetables, fruits, animals without or with very limited use of chemical fertilizers and pesticides, plant growth regulators such as hormones; antibiotic use in livestock; genetically modified organisms; artificial insemination, etc/</i>	Yes 1 No 2	
19	Research, planning, maintenance and control of technologies <i>/ - Research and development of processes to conserve energy or natural resources or to reduce pollution; - planning, implementing, and monitoring of these processes; - maintaining or installing equipment or infrastructure associated with the processes; - measuring and controlling outputs of the process./</i>	Yes 1 No 2	
20	Other environmentally friendly technologies and practices not mentioned questions 13-19	Yes 1 No 2	
21	Please indicate the total number of workers who spent more than half of their working time involved in environmental technologies and practices reported in question 13-20.	<input type="text"/> people	
22	Does your enterprise certify the environmental management standard as MNS-ISO14001?	Yes 1 No 2	
23	Does your enterprise has an environmental employees?	Yes 1 No 2	
24	Does your enterprise implement the environmental internal audit? <i>/Order No. 126, at 24th April, 2013, by minister of environment and green development/</i>	Yes 1 No 2	

No.	Question	Answer	Step																		
25	Please indicate the occupations and average monthly wages of the workers reported in question 21 who spent more than half of their working time actively involved in environmental technologies and practices.	<table border="1"> <thead> <tr> <th>occupation</th> <th>monthly average wage</th> <th></th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>thous.tug</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>thous.tug</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>thous.tug</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>thous.tug</td> </tr> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td>thous.tug</td> </tr> </tbody> </table>	occupation	monthly average wage		<input type="text"/>	<input type="text"/>	thous.tug	<input type="text"/>	<input type="text"/>	thous.tug	<input type="text"/>	<input type="text"/>	thous.tug	<input type="text"/>	<input type="text"/>	thous.tug	<input type="text"/>	<input type="text"/>	thous.tug	
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Part 3: Opinions and expectations (optional)																					
26	Do you think that demand for environmental goods and services will increase?	Yes	1																		
		No	2																		
27	Do you think possible enlargement of investments in green technologies would ensure profitability in medium and longer term?	Yes	1																		
		No	2																		
28	What obstacles do you face in the way of implementing "green" practices at your workplace? (Check "Yes" to all that apply in rows 24-32)	Shortage of workers with the knowledge or skills in environmental activities/practices.....	A																		
		Shortage of available training programs	B																		
		Costs of implementation.....	C																		
		Uncertain return on investment or too long payback period for green technologies.....	D																		
		Uncertain demand from the market	E																		
		Lack of information	F																		
		Government policies/regulations (not providing incentives to greening)	G																		
		Insufficient access to existing subsidies and fiscal incentives.	H																		
Other	I																				
29	What resources would help reduce or eliminate the creation or release of pollutants (e.g. CO2 emissions) at your establishment? (Check "Yes" to all that apply in rows 33-40)	Information about specific actions to take to cost-effectively reduce air emissions	A																		
		Success stories showing how similar businesses cost-effectively reduce their CO2 emissions	B																		
		Financing options to reduce air emissions	C																		
		State-wide award program to recognize businesses that successfully reduce air emissions	D																		
		Protocol for reporting air emissions	E																		
		Technical support (e.g. training and online questions and answers).....	F																		
		Other	G																		
30	Do you find the level of environmental sensitivity of workers satisfactory?	Yes	1																		
		No	2																		
31	Does your establishment's executive leadership places high priority on environmental sustainability?	Yes	1																		
		No	2																		
32	Do you find the definition of employment in environmental sectors satisfactory? What would be your suggestions in this regard?	Yes	1																		
		No	2																		
		Comment																			





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