
**EBRD-EIB-World Bank Group
ENTERPRISE SURVEY**

**UNDERSTANDING
THE QUESTIONNAIRE**

Global version of this instrument available at www.enterprisesurveys.org

1. INTRODUCTION

The World Bank's Enterprise Surveys (ES) collect data from enterprises in manufacturing and key service sectors in every region of the world by using a global methodology that includes standardized survey instruments and a uniform sampling methodology. The current rollout of the surveys, known as the Joint EBRD-EIB-WB Enterprise Surveys, is a collective effort of the WB, the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB) is covering Europe, Central Asia and Middle East and North Africa. This manual provides information and guidance on survey instruments to the implementing contractor, researchers, field managers, field supervisors, and enumerators.

2. WHAT IS IN AN ENTERPRISE SURVEY QUESTIONNAIRE

The survey is implemented in two stages. In the first stage the Screener questionnaire is applied (typically by phone) to determine the eligibility of each establishment. In the second stage one of the two versions of the questionnaire (*Manufacturing* or *Services*) is administered according to the sector determined in the Screener.

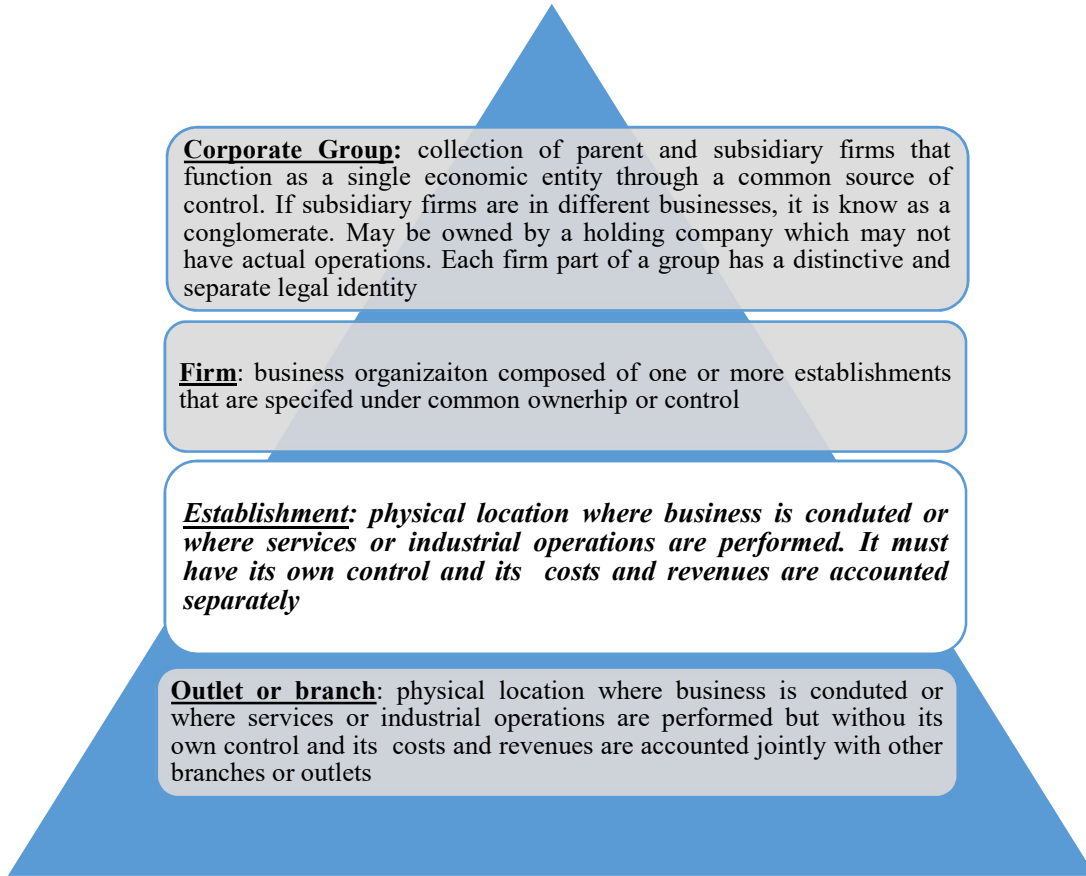
The *Manufacturing* or *Services* questionnaires are comprised of sixteen sections organized by topic:

- Section A – *Control Information*: control information
- Section B – *General information*: characteristics of the establishment
- Section C – *Infrastructure and Services*: power, water, transport, and communication technologies.
- Section D – *Sales and Supplies*: imports, exports, supply and demand conditions
- Section R – *Management Practices*: details of the establishments' management practices
- Section E – *Degree of Competition*: number of competitors and technology
- Section H – *Innovation*: introduction of product or process innovation, R&D
- Section F – *Capacity*: use of production capacity, hours of operation
- Section T – *Time Use of the Top Manager*: frequency and duration of meetings
- Section G – *Land and Permits*: land ownership, land access issues
- Section I – *Crime*: extent of crime and losses due to crime.
- Section K – *Finance*: sources of finance, access to credit.
- Section J – *Business-Government Relations*: quality of public services, consistency of policy, regulatory compliance costs (management time, bribes).
- Section L – *Labor*: employment, training, skills.
- Section M – *Business Environment*: ranking of general obstacles.
- Section N – *Performance*: numbers and figures needed to estimate performance or productivity.

3. UNIT OF ANALYSIS

The study is designed to survey an **establishment**, which is a physical location where business is carried out, industrial operations take place, or services are provided. A **firm** may be comprised of one or more establishments; for instance, a brewery may have several bottling plants and several

establishments for distribution. To qualify for this survey, an establishment must have its *own management and control over its workforce*. In practical terms, all establishments from multi-establishment firms are included except headquarters that have no production or sales or establishments that do not have their own management and control over their workforce; in those cases, the establishment should be substituted.



4. INSTRUCTIONS FOR INTERVIEWERS

Instructions for interviewers appear in **BOLD AND UPPERCASE LETTERS**. When the questionnaire appears in color, these instructions will be in blue. The interviewer should not read these instructions aloud; they only operate as guidelines. At times, some questions require special instructions before being posed or clarification on how the answer should be recorded:

INTERVIEWER: PLEASE NOTE THAT THE NEXT QUESTION REFERS TO THE TOTAL SALES OF ALL PRODUCTS AND SERVICES

D.2	In fiscal year 2017, what were this establishment's total annual sales for ALL products and services?
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	LCUs
Last complete fiscal year's total sales	d2
DON'T KNOW (SPONTANEOUS)	-9
PLEASE ALSO WRITE OUT THE NUMBER (i.e. 50,000 as Fifty Thousand)	

None of the text that appears in **BOLD AND UPPERCASE** in the questionnaire should be read aloud; this includes responses to the question like “**DON’T KNOW**”, “**DOES NOT APPLY**”, or “**REFUSED**” if a respondent refuses to answer.

Some questions need to be skipped when they are not applicable to a particular establishment. When using CAPI (i.e., administering the questionnaire on a tablet), skip patterns are implemented automatically. In a rare case of using PAPI (pen and paper), the text in the paper questionnaire written in ***BOLD, UPPERCASE AND ITALICIZED LETTERS*** (in red when printed in color) indicates a skip pattern. The interviewer should proceed with the appropriate question as given in the skip pattern instructions. In languages that do not accommodate italics, alternative visual designs should be used to indicate skip patterns.

Finally, text that appears between parentheses is intended as an option for the interviewer to read for clarification.

J.2	In a typical week over the last year, what percentage of total senior management's time was spent on dealing with requirements imposed by government regulations? (By senior management I mean managers, directors, and officers above direct supervisors of production or sales workers)
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	Percent
Senior management's time spent on dealing with regulations	j2 %
NO TIME WAS SPENT	0
DON'T KNOW (SPONTANEOUS)	-9

5. HOW TO ASK QUESTIONS

All questions should be read in the order and with the wording as they appear. Certain question format conventions in the ES should be noted:

a. When using CAPI, **Tables** generally appear one category at a time. For example, when asking the following question, the main text appears first, afterwards each category appears separately, one at a time. In a rare case of using PAPI, such tables should be read the same way they are implemented in CAPI. For example, when asking the same question, interviewers should solicit a response for each line, and then continue reading through the remaining categories in the same manner.

K.14	Referring only to this most recent loan or line of credit, what type of collateral was required? INTERVIEWER: READ OUT
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Collateral	Yes	No	DON'T KNOW (SPONTANEOUS)

Land, buildings under ownership of the establishment	k14a	1	2	-9
Machinery and equipment including movables	k14b	1	2	-9
Accounts receivable and inventories	k14c	1	2	-9
Personal assets of owner (house, etc.)	k14d	1	2	-9
Other forms of collateral not included in the categories above	k14e	1	2	-9

b. Show cards are used when respondents should select among several options. For example, when asking the following question:

B.1	What is this firm's current legal status? SHOW CARD 1
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Shareholding company with shares trade in the stock market	1
Shareholding company with non-traded shares or shares traded privately	2
Sole proprietorship	3
Partnership	4
Limited partnership	5
OTHER (SPONTANEOUS-SPECIFY) ___ b1x ___	6
DON'T KNOW (SPONTANEOUS)	-9

SKIP TO B.2

b1

Enumerators should give respondents enough time to read show cards and not rush them, so the respondents can read all the options at their own pace.

6. ACCEPTABLE RESPONSES

Many questions ask for percentages or fractions. All numbers should be recorded **without decimals**. So, ten percent is recoded as 10 (not .10 and certainly not 1/10). In cases where the respondent answers in decimals, **standard rounding** should be applied; that is, fractions below 0.5 are rounded to 0 and fractions equal to or more than 0.5 are rounded to 1. For example, 10.5 percent is recorded as 11 percent, and 10.25 percent is recorded as 10 percent.

If the question asks for a response in a specific unit and the respondent answers using a different unit, **the enumerator must make the conversion** and record the answer in the unit requested. For example, if the question asks for a response in days and the respondent responds in weeks, the enumerator must make the conversion and record the response in days, not in weeks. For purposes of standardization, the conventions for time conversions are as follows:

1 day= calendar day		
1 week= 7 days		3 months = 90 days
1 month= 4 weeks	Consequently	6 months (half year) = 180 days
1 month= 30 days		9 months = 270 days
1 year= 52 weeks		
1 year= 365 days		

Some questions have pre-coded answers to facilitate implementation. As an example, in the following question answers of **less than one year should all be coded as one**. The questionnaire provides this pre-coded answer. Note that this is the only exception to the standard rounding.

Answer: “Two months”

B.7	How many years of experience working in this sector does the Top Manager have?
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	Years
Manager's experience in sector	b7
LESS THAN ONE YEAR	1
DON'T KNOW (SPONTANEOUS)	-9

Enumerators should always do the necessary conversions to record answers in the unit requested. The only case when respondents are asked to do the conversion themselves is for questions related to monetary values if they respond in a currency that is not the local currency. **All questions should have a response in the local currency units (LCUs). The enumerator does not do the conversion.** The enumerator must always be aware of the currency units the respondent is referring to in his or her responses.

7. HOW TO MINIMIZE ENUMERATOR BIAS

The questionnaire is to be read as it is written. As with any survey, enumerators should refrain from introducing any interpretation bias by trying to explain or direct the answer. However, in some cases answers are given in the format that does not fit the question, or they do not respond to the question. In terms of handling these situations, questions can be classified in **2 categories**: (1) *opinion-based or sensitive questions*, and (2) *hard-data questions*.

Opinion-based or sensitive questions seek the actual opinion of the respondent (including about the degree of obstacles) or address a sensitive issue such as providing informal payments or gifts. Enumerators should just read these questions. When asked for clarification or when faced with a confused respondent, enumerators should read the full question again as it is written, **without changing wording or providing synonyms or explanation**. If the respondent still demands clarification, as a last resort, the enumerator can indicate that he or she has been instructed to NOT explain and just read the question the way it is written.

In CAPI, **opinion-based and sensitive questions are clearly visually differentiated from hard-data questions**. In PAPI, they are **identified with shaded background and double bordering**.

Hard-data questions seek quantitative data. Sometimes the questions are answered with “narrative stories”, from which enumerators should identify the appropriate response. In such cases, enumerators can probe the respondent using standard techniques: re-ask the question emphasizing key concepts; ask a question that completes an incomplete answer already provided; when the respondent provides the answer in ranges, enumerators can ask “Could you be more specific?” or “Is it more A or more B?”.

8. QUESTION-BY-QUESTION EXPLANATION OF TERMS

To distinguish *Manufacturing* and *Services* questions, questions will be identified by the module version in parentheses, **(Manuf)** or **(Serv)**. Additionally, each questionnaire-specific variable is marked **in blue** and **in green** respectively. Opinion questions that should not be explained are shaded in **gray**.

Section	Number	Instructions
Control Information <i>from sampling information</i>	a4a	<i>Sampling sector</i> : Classification of the establishment's activity as defined in the sample frame.
	a6a	<i>Sampling size</i> : Size of the establishment as defined in the sample frame
	a2	<i>Sampling region</i> : Regional classification of the establishment as defined in the sample frame
	panel	<i>Sampling panel code</i> : indicates (yes or no) if an establishment was interviewed in a previous round of the ES.
Control Information <i>from establishment location (a3x)</i>	a3x	<i>Name of the city/town/village</i> : Physical location of the establishment as determined by the screener questionnaire
Control Information <i>from screener</i>	a4b	<i>Screener sector</i> : Classification of the establishment's activity as determined by the screener questionnaire
	a0	<i>Questionnaire</i> : version used according to a4b, screener sector
	a3a	<i>Screener region</i> : Regional classification as determined by the screener questionnaire; based on a3x, using categories corresponding to a2
	a6c	<i>Screener size</i> : The number of workers in the establishment as determined by the screener questionnaire
Control Information <i>from the beginning of the interview</i>	lat	<i>Latitude</i> : (in decimal format), not released due to confidentiality
	lon	<i>Longitude</i> : (in decimal format), not released due to confidentiality
	a12	<i>Interviewer code</i> : self-explanatory
	a1a	<i>Language of the interview</i> : Interviews should never take place with simultaneous translation.
	a1	<i>Country code</i> : self-explanatory
	a1c	<i>Sample Frame Unit</i> : establishment or firm. This is determined from the sampling information.
	a14d a14m a14y a14h a14min	<i>Time face-to-face interview begins</i> : self-explanatory
<i>START OF INTERVIEW</i>		
A. CONTROL INFORMATION		

Section	Number	Instructions
Control Information	a7	<i>Establishment is part of a larger firm:</i> if yes, questions B1 to B4a apply to the firm which the establishment is part of. All questions after B.4a only refer to the establishment.
Control Information	a7a	<i>Number of establishments in firm:</i> self-explanatory
Control Information	a7b	<i>Establishment is a headquarters:</i> self-explanatory
Control Information	a7c	<i>Headquarters engages in production or sales:</i> self-explanatory
Control Information	a11	<i>Financial statements of headquarters held separately from other establishments:</i> self-explanatory
Control Information	a9	<i>Financial statements of non-headquarters held separately from other establishments:</i> self-explanatory
Control Information	a20y a20m a20d	<i>Calendar date the last completed fiscal year ended:</i> self-explanatory. If respondent does not know, indicate December 31 of the last completed calendar year.
B. CONTROL INFORMATION		
General Information	b1 b1x	<p><i>Legal status:</i> ENUMERATORS DO NOT NEED TO KNOW THE DEFINITION OF EACH TYPE OF LEGAL STATUS.</p> <p>If an establishment is part of a larger firm, this question applies to the whole firm.</p> <p><i>Shareholding company with shares traded in the stock market:</i> shares are publicly traded on the stock market. Firms in this category have limited liability.</p> <p><i>Shareholding company with shares traded privately:</i> shares are not traded or they are traded only privately. Firms in this category have limited liability.</p> <p><i>Sole proprietorship:</i> is a business owned and operated by one individual natural person; that is a real human being, as opposed to an artificial legal entity such as a corporation or organization that the law treats as if it were a person distinct from its members or owner(s). This is regardless of whether or not the establishment has limited liability.</p> <p><i>Partnership:</i> allows two or more people to share profits and liabilities, with or without privately held shares. Parties can be individuals, corporations, trusts, or a combination of the above. Partners have unlimited liability in these firms.</p> <p><i>Limited partnership:</i> includes one or several general partners and one or more limited partners who invest capital into the partnership, but do not take part in the daily operation or management of the business. Limited partners limit their amount of liability to the amount of capital</p>

Section	Number	Instructions
		<p>invested in the partnership. The general partners personally shoulder all debts and obligations of the partnership.</p> <p><i>Other:</i> must be specified in writing. This variable should be codified after field work is finished to make sure that “other” does not include establishments that can be included in forms 1-5.</p>
General Information	b3	<i>Percentage owned by the largest owner(s):</i> self-explanatory
General Information	b2a b2b b2c b2d	<p><i>Share owned by:</i></p> <p><i>Domestic</i> are nationals of the country in which the establishment is located. (Follow the same rule for companies and organizations) Person with dual nationality is considered domestic.</p> <p><i>Foreign</i> ownership refers to the nationality of the owners, regardless of residency. If the owner is another company or institution owned by individuals who are foreign nationals, then it is foreign owned.</p> <p><i>Government or state-owned</i> firm that is a subsidiary of a government-owned firm should also be considered government-owned.</p> <p>Firms that operate under a franchise agreement should be classified according to the nationality of those awarded the franchise.</p>
General Information	b4	<i>Amongst the owners, are there any females:</i> self-explanatory
General Information	b4a	<i>Percentage of ownership by females:</i> self-explanatory
General Information	BMb1	<p><i>Percentage owned by the same family:</i> The same family is defined as family members (parents, spouse, siblings, children, and grandchildren) of the main owner or founder.</p> <p>If several members of the same family share ownership, their immediate family members should be considered in the same family as well. For example, if two siblings are the majority owners, their (shared) parents, spouse(s), children, and grandchildren should be included.</p>
General Information	BMb2	<i>Family members in key management positions:</i> top manager, chief executive officer, chief operating officer, chief financial, or alike are considered key management positions. If multiple families are the largest owners and own equal shares, the family with more management positions should be considered.
General Information	BMb3	<i>Formalized written business strategy:</i> a document that describes the main business strategy that was discussed and approved in some formal manner

Section	Number	Instructions
General Information	BMb4	<i>Board of directors or supervisory board:</i> self-explanatory
General Information	BMb5	<i>Owner, CEO, top manager, or any of the board members in political position:</i> includes formal political (appointed or elected) positions, as well as other positions of authority, for example in the judicial system, government bureaucratic or the military, with direct or potential influence over policy.
General Information	b5	<p><i>The year the establishment began operation</i> refers to the year in which the establishment actually started producing (or providing services), not to the year in which it was registered for the first time. The answer is independent of ownership at the time.</p> <p>If the establishment was privatized, then the date provided should refer to when the original government-owned establishment began operations.</p> <p>If the establishment changed its production significantly to change <u>sector</u> classification, then the year when that took place should be provided.</p>
General Information	b6	<i>Number of permanent, full-time employees at start-up:</i> All employees and managers (including respondent) should be included. Include both paid and unpaid workers.
General Information	b6a	<p><i>Establishment formally registered at start-up:</i> determined on a country-specific basis. This should be consistent with the sample frame and universe of inference, when possible.</p> <p>Whether the establishment registered with [enter name of main Registration Office for each country]</p> <p>Albania: Request and obtain the Registration Certification and Unique Business Identification Number with National Registration Center, NRC (Qendra Kombëtare për Regjistrim,QRK)</p> <p>Armenia: Register at the One-stop shop</p> <p>Azerbaijan: File documents with the company registrar at the One Stop shop Taxes, register for VAT purposes</p> <p>Belarus: Business registration with the State Registry</p> <p>Bosnia and Herzegovina: Court registration with Municipal Courts</p> <p>Bulgaria: Register with the Commercial Register at the Registry Agency</p> <p>Croatia: Notarize memorandum of association and register company with the Commercial Court electronically</p> <p>Cyprus:</p> <p>Czech Republic: Register with the Trade Licensing Office and obtain extract of the trade license</p> <p>Egypt:</p> <p>Estonia: Submit online the registration application to the Commercial</p>

Section	Number	Instructions
		<p>Register</p> <p>FYR Macedonia: Registration with the Central Registry</p> <p>Georgia: Register the company with the Entrepreneurial Register and obtain an identification number and certificate of state and tax registration</p> <p>Greece:</p> <p>Hungary: Apply for registration at the Registration Court (simplified electronic registration)</p> <p>Italy:</p> <p>Jordan:</p> <p>Kazakhstan: State registration of legal entity and tax registration at the Public Registration Center</p> <p>Kosovo: Request and obtain the Business Certificate and the 'Business Information' document at the Kosovo Business Registration Agency (KBRA)</p> <p>Kyrgyz Republic: Register at the One stop shop Register with the Social Fund and the State Tax and the National statistics</p> <p>Latvia: Register at the Commercial Registry and register with State Revenue Service (tax authority) for VAT</p> <p>Lebanon:</p> <p>Lithuania: Register at the Company Register, including registration with State Tax Inspectorate (the Lithuanian Revenue Authority) for corporate tax, VAT, and State Social Insurance Fund Board (SODRA)</p> <p>Malta:</p> <p>Moldova: Obtain the registration certificate and constitutive act; obtain an official stamp from the Ministry of Information Technologies and Communication; and obtain statistical codes</p> <p>Mongolia: Register at the State Registration Office, under the General Department of State Taxation</p> <p>Montenegro: Submit the request at the Central Registry together with the necessary documents and within 4 days (legal term) obtain the registration certificate, TIN (tax identification number), VAT tax number and customs authorization</p> <p>Morocco:</p> <p>Poland: File at National Court Register for company registration, REGON, NIP, Statistical Office and ZUS</p> <p>Portugal:</p> <p>Romania: Register with the Unique Office (Biroul Unic) of trade registry Registrul Comertului (BASC), Bucharest Tribunal; obtain court registration, publication of notice, and registration for statistical purposes and social security</p> <p>Russia:</p> <p>Serbia: Apply and obtain the registration certificate, tax identification number, pension fund (PIO Fund) and Health Fund certificates, certify the signatures (three copies) for opening bank account and register the employment contracts with the Employment Organization at Business</p>

Section	Number	Instructions
		Registers Agency (SBRA) Slovakia: Apply at the One stop shop for trade licenses, income tax registration and health insurance company Slovenia: Register at the electronic One-stop shop: E-vem Spain: Tajikistan: Register with State Registry at the Ministry of Justice Tunisia: Turkey: File the incorporation notice form, commitment letter, and Chamber registration statement at the Trade Registry Office Turkmenistan: Company registration with tax authorities Ukraine: Approval of Ministry of Internal Affairs to prepare a company seal Uzbekistan: Register with the local authority (khokimiyat) and obtain the certificate of state registration West Bank and Gaza:
General Information	b6b	<u>Year of registration:</u> when the establishment completed the registration as explained in B.6a.
General Information	b7	<u>Top Manager's experience:</u> in the type of sector that the establishment presently operates. <u>Top Manager</u> refers to the highest-ranking management individual. This person may be the owner if he/she works as the Manager of the firm.
General Information	b7a	<u>Top Manager is female:</u> self-explanatory
General Information	b8	<u>Internationally-recognized quality certification:</u> refers exclusively to internationally recognized certifications. Examples are: ISO (International Organization for Standardization) for manufacturing and services, HACCP (Hazard Analysis and Critical Control Point) for food (especially, but not exclusively, for seafood and juices), and AATCC (American Association of Textiles Chemists and Colorists) for textiles. Certificates granted only nationally, not recognized in international markets, are not included. If the quality certificate belongs to the holding company and included the establishment, then recorded answer should be yes.
General Information	b8x	<u>Internationally-recognized quality certification:</u> self-explanatory
General Information	BMb6 BMb7	<u>Business organization:</u> the question refers to any group that aims at supporting businesses and is membership-based. <u>Most important business organization:</u> self-explanatory
	BMb8a BMb8b BMb8c	Opinion based or sensitive

Section	Number	Instructions
	BMb8d	
C. INFRASTRUCTURE AND SERVICES		
Infrastructure and Services	c3	<i>Application for an electrical connection:</i> a new connection or an increase in voltage of an existing connection that requires an application.
Infrastructure and Services	c4	<i>Wait for an electrical connection:</i> period in days between the completed and submitted application and the connection provision.
Infrastructure and Services	c5	<u>Opinion based or sensitive</u>
Infrastructure and Services	c6	<p><i>Power outages</i> occur when there is equipment malfunction from the failure of adequate supply of power. Brownouts that cause some, but not all, equipment to malfunction are also considered power outages.</p> <p>Note that if power outages are planned, i.e. “load shedding”, this is considered a power outage if the scheduled outage interrupts the operations of the establishment.</p> <p>However, if power outages are planned and the scheduled outage does NOT interrupt the operations of the establishment, this is not considered a power outage. Situations where the electricity/lights flicker and the experiences of both workers and/or customers are not affected are not considered power outages.</p>
Infrastructure and Services	c7	<i>Number of outages in a typical month:</i> the typical month is the most common type of month in the year regarding the characteristic being asked. For answers such as “electrical outages once every 3 months”, in a typical month there are 0 outages (since there will be outages only in 4 months of the year and no outages in the remaining 8 months).
Infrastructure and Services	c8a c8b	<i>Average duration of power outages:</i> the duration of each incident of power outage in a typical month . c8a records duration in hours, c8b in minutes. If the duration is less than an hour, record 0 for c8a. Durations less than a minute should be 0 for c8a and 1 for c8b.
Infrastructure and Services	c9a c9b	<i>Losses because of power outages:</i> the amount of production lost because of power outages. Answers can be provided either as a percentage of sales or in local currency, but not both.
Infrastructure and Services	c10	<i>Own or share a generator:</i> regardless of use
Infrastructure and Services	c11	<i>Percentage of electricity from an owned or shared generator:</i> self-explanatory
Infrastructure and Services	c12	<i>Application for a water connection:</i> includes a new connection or any change to an existing connection that requires an application.
Infrastructure and Services	c13	<i>Wait for a water connection:</i> period in days between the completed and submitted application and the connection provision.
Infrastructure and Services	c14	<u>Opinion based or sensitive</u>
Infrastructure and Services	c15 (Manuf)	<i>Insufficient water supply:</i> whenever there is equipment failure or cessation of production operations due to the lack or reduction of water supply.

Section	Number	Instructions
Infrastructure and Services	c16 (Manuf)	<u>Incidents of insufficient water supply per month:</u> The calculation should be made based on a typical month. Only insufficiencies causing equipment failure, cessation, or disruption of production operations should be considered.
Infrastructure and Services	c17 (Manuf)	<u>Duration of water shortage:</u> the average duration of water insufficiencies that took place in a typical month.
Infrastructure and Services	c22b	<u>Website:</u> an establishment has its own website, including only for promotional purposes. This includes maintaining an account on social media to promote goods or services, including if any business or operations are run through that account.
Infrastructure and Services	c30a	<u>Opinion based or sensitive</u>
D. SALES AND SUPPLIES		
Sales and Supplies	d1a1a	<u>Establishment's main activity and product or service:</u> select the general activity that corresponds to the answer provided by the respondent.
Sales and Supplies	d1a1x	<u>Description of establishment's main activity and product or service:</u> should be written down exactly as provided and as accurately as possible. The description must specify the activity of the establishment and the product produced or service offered. <i>The main product and activity is defined as the one that generates the largest proportion of annual sales in monetary value (not volume).</i>
Sales and Supplies	d1a3	<u>Percentage of total sales does the main activity or product represent:</u> in terms of sales in monetary value not volume.
Sales and Supplies	d2	<u>Total annual sales:</u> the value of all annual sales counting manufactured goods, goods the establishment has bought for re-sale, and services provided. If an establishment makes blue jeans and also imports blue jeans to resell, total sales is the value of all blue jeans sold, both produced and imported. Revenue or receipts for all services rendered and any sales of merchandise for the year, even if the payment may have been received at a later date, are included in total sales. For services, total sales refer to the total value of all the services provided during the year. Total sales should include sales with and without invoices (reported and unreported sales). If possible, record values from the establishment's financial records. If the company is VAT (Value Added Tax) registered and is getting a VAT refund, the total sales figure should exclude VAT. If the company is not VAT registered (cannot get a refund), the total sales should be given as they are.

Section	Number	Instructions
Sales and Supplies	d2x	<i>Total sales:</i> please write out the answer to d2 in words. For example, 132,000 should be written as “One hundred thirty two thousand”
Sales and Supplies	n3	<p><i>Total sales three complete fiscal years ago:</i> the value of all annual sales counting manufactured goods, goods the establishment has bought for re-sale, and services provided.</p> <p>Sales figures should be provided using prices at the time and should be provided from financial records, when possible.</p>
Sales and Supplies	BMd1a	<i>Expected annual sales growth next year:</i> refers to impressions for the period of a calendar year in the future from the time of the interview
Sales and Supplies	BMd1b	<i>Expected annual sales growth next year:</i> the magnitude of expected change in total sales.
Sales and Supplies	d3a d3b d3c	<p><i>National sales:</i> goods or services are sold inside the borders of the country.</p> <p><i>Indirect exports:</i> goods (or occasionally services) are sold to a trader or third party who then exports the product without modifications. Products that the manager knows are smuggled abroad should be counted as indirect exports. For hotels, room-nights sold to foreigners via tour operators and/or travel agencies should be considered indirect exports.</p> <p><i>Direct export:</i> the sale of goods where the immediate recipient is outside the borders of the country.</p> <p>Please note that some service establishments, such as hotels, may cater to foreigners at their domestic locations. Sales to these foreigners constitute exporting.</p>
Sales and Supplies	d4	<p><i>Average time goods remain in customs:</i> from the moment they arrive at customs, including waiting time to enter, until they are ready to be shipped out of customs from their point of exit (e.g., port, airport). Do not include waiting time for shipment, after being cleared by customs officials.</p> <p>Export to CIS (Commonwealth of Independent States) or customs union counts as export. If there are no associated customs procedures, for example, within a customs union, enumerators may record “DOES NOT APPLY”</p> <p><i>Main point of exit</i> is the last domestic location (e.g. port, border crossing, airport, or internal custom) from which the goods leave the country. Whenever different ports of exit are used this question refers to the port where “most goods” exit defined in terms of consignment value (not physical units).</p>

Section	Number	Instructions
Sales and Supplies	d5a	<u>Opinion based or sensitive</u>
Sales and Supplies	d6	<i>Losses due to theft as percentage of the value of the products:</i> include only those products that were exported directly
Sales and Supplies	d7	<i>Losses due to breakage or spoilage as percentage of the value of the products:</i> self-explanatory
Sales and Supplies	d8	<i>Year establishment first export directly or indirectly:</i> self-explanatory
Sales and Supplies	d10	<i>Losses due to theft as percentage of the value of the products:</i> only includes shipments made to supply domestic markets. If an establishment does not make shipments and sells all goods on site, or if an establishment exclusively supplies foreign markets, mark “ NO INTERNAL SHIPMENTS MADE ”
Sales and Supplies	d11	<i>Losses due to breakage or spoilage as percentage of the value of the products:</i> see d10
Sales and Supplies	d12a d12b	<p><i>Inputs</i> are materials that go through a mechanical, physical, or chemical transformation that will ultimately make up some portion of the final good produced. E.g. lumber in a furniture factory.</p> <p><i>Supplies</i> are materials or products that are used, expended, consumed, but will not comprise the final good produced. Pencils and writing paper are good examples of a supply.</p> <p><i>Materials and goods for resale:</i> includes goods and final materials purchased by retailers or wholesalers for sale without further modifications.</p> <p>The calculation is done as a percent of all purchases of supplies, inputs and goods purchased by the establishment for the fiscal year.</p> <p>The origin of the inputs, supplies, materials, or goods, matters regardless of whether the establishment directly imports them or not.</p>
Sales and Supplies	d13	<i>Imported material inputs, supplies, or finished goods and materials purchased to resell:</i> self-explanatory
Sales and Supplies	d14	<p><i>Average time goods remain in customs:</i> includes all clearances required from the moment the goods arrived at their point of entry (e.g., port, airport) until the moment they satisfy the requirement of the clearance procedures at the customs office and can be picked up. It does not include time spent on transportation to reach the point of entry but it includes waiting time to enter customs.</p> <p>If there are no associated customs procedures, for example, within a customs union, enumerators may record “DOES NOT APPLY”</p>
Sales and Supplies	d15a	<u>Opinion based or sensitive</u>

Section	Number	Instructions
Sales and Supplies	d30a d30b	<u>Opinion based or sensitive</u>
R. MANAGEMENT PRACTICES		
Management Practices	BMr1	<p><u>Dealing with a process problem:</u> description of actions taken in reaction to process problems, such as machinery break-down, human errors, or failures in communication. For manufacturers, this refers to the production process; for services establishments this involves problems affecting service delivery or provision. Answer that best describes the management practices in the establishment should be chosen.</p> <p>Use DOES NOT APPLY (-7) if there were no problems in the production process in the last complete fiscal year.</p>
Management Practices	BMr2	<p><u>Monitor (production) performance indicators:</u> Production performance indicators (in Manuf.) include, for example, volume of production (number of units produced), number of errors per 10000 units produced, monitoring the cost of inputs, greenhouse gas emissions in thousand tons of CO2/year, sulfur dioxide in thousand tons per year, nitrogen oxides in thousand tons per year, total energy use and energy intensity, total water used, hazardous/dangerous waste generated, non-hazardous/non-dangerous waste generated, number of production related incidents, etc.</p> <p>Performance indicators (in Serv.) include, for example, sales generated over a period of time or sales per sq. foot (retail); foot traffic (retail, restaurants) which is the number of people in the shop during a particular period; average amount customers spend during each purchase; stock turnover rate (refers to the number of times the average inventory of a product is sold in a year); costs of providing services; client satisfaction, time predictability, booked on-line value, etc.</p> <p><u>Additional examples by industry are provided in https://kpidashboards.com/kpi/industry/transportation-and-warehousing/</u></p>
Management Practices	BMr3	<u>Number of production performance indicators monitored:</u> self-explanatory

Section	Number	Instructions
Management Practices	BMr4 BMr5 BMr6 BMr7	<p><u>Production or service provision targets:</u> Such targets can be defined in terms of units of products produced, percentage of products with errors, percentage of products, customer satisfaction, or services delivered on-time etc. For example, a production target could be a maximum of 50 errors per 10000 units produced.</p> <p><u>Time frame of production or service provision targets:</u> The purpose is to find out whether short-term or long-term goals are the focus of the establishment, and to understand the relationship between the short-term and long-term targets. Short-term targets refer to periods of less than a year. Long-term targets refer to periods a year or longer.</p> <p><u>Difficulty of achieving targets:</u> The purpose is to assess how demanding are the establishment's production or service provision targets.</p> <p><u>Awareness of targets:</u> By managers we mean people who have responsibility for pay and promotion for at least one other employee. This excludes shift supervisors.</p> <p>Answer that best describes the management practices in the establishment should be chosen.</p>
Management Practices	BMr8 BMr9	<p><u>Performance bonuses and production targets:</u> Performance bonus is a form of payment to employees, which is related to the performance output of an employee. Managers as defined in BMr7. Targets as defined in BMr4.</p> <p><u>Basis for performance bonuses:</u> whether own, team's, establishment's, or entire firm's targets were used as a basis to assess bonuses.</p> <p>Answer that best describes the management practices in the establishment should be chosen.</p>
Management Practices	BMr10	<p><u>Primary way of promotion of non-managers:</u> By non-managers we mean employees excluding managers as defined in BMr7.</p> <p>Use DOES NOT APPLY (-7) if no non-manager was promoted in the last complete fiscal year.</p> <p>Answer that best describes the management practices in the establishment should be chosen.</p>
Management Practices	BMr11	<p><u>Under-performing non-managers:</u> The purpose is to find out what happens to employees who do not meet expectations in their position.</p> <p>Use Does Not Apply (-7) if there were no under-performing non-managers in the last complete fiscal year.</p> <p>Answer that best describes the management practices in the establishment should be chosen.</p>
E. DEGREE OF COMPETITION		

Section	Number	Instructions
Degree of Competition	e1	<u>Main market</u> : is defined by the market that generates the most sales for the main product or activity as defined in d1a1x. Whenever local, national and international markets have equal shares choose the national market.
Degree of Competition	e2b	<u>Number of competitors in the establishment's market</u> . Self-explanatory
Degree of Competition	e6	<u>Technology licensed from a foreign owned company</u> : the license may be held by the establishment's parent company. The answer is "no" if the establishment uses foreign technology without a license or a formal agreement. This excludes licenses to publicly available office software.
Degree of Competition	e11	<u>Establishment compete against unregistered or informal firms</u> : self-explanatory
Degree of Competition	e30	Opinion based or sensitive
H. INNOVATION		
Innovation	h1	<p><u>New or improved products and services (product innovation)</u>: Introduction to the market during the reference period of a) products or services that are new to the establishment; and b) products or services that have significant improvements in capabilities, user friendliness, components or sub-systems. Significant improvements include new or significantly improved i) capabilities or other functions; ii) technical specifications; iii) components and materials; iv) incorporated software; v) user friendliness.</p> <p><u>DO NOT INCLUDE</u>:</p> <p>i) minor changes; ii) regular seasonal changes; iii) routine upgrades, iv) purely aesthetic design changes that do not affect functionality; v) the resale of a good purchased from other enterprises.</p> <p><u>Product innovations in manufacturing (Manuf)</u> include products that differ significantly in their characteristics or intended uses from products previously produced by the firm. A new product can use new technology or a new combination of existing technology. The development of a new use for a product with only minor changes to its technical specifications is also a product innovation. Significant improvements to existing products can occur through changes in materials, components and other characteristics that enhance performance.</p> <p><i>Examples of product innovation for manufacturing include: a shirt-maker introducing a shirt with non-iron material; a shoe-maker introducing a shoe with a new cushioning technology; an appliance manufacturer introducing an appliance with built-in software or reduced energy consumption; a factory producing bar soap for personal uses that introduces liquid soap for personal uses.</i></p> <p><u>Product innovations in services (Serv)</u> can include significant</p>

Section	Number	Instructions
		<p>improvements in how services are provided (for example, in terms of their efficiency or speed), the addition of new functions or characteristics to existing services, or the introduction of entirely new services.</p> <p>Apart from retail and wholesale, services can be classified into four groups: services dealing mainly with goods (such as transport and logistics), those dealing with information (such as call centers), knowledge-based services (such as ICT), and services dealing with people (such as hospitality).</p> <p><i>Examples of product innovation for services include an electronics store that starts a rental or leasing program, a hotel that opens a spa, a restaurant that was previously offering only local food and starts offering an “Italian” or “French” menu.</i></p>
Innovation	h2	<p><i>New or improved products or services new for the establishment’s main market:</i> Introduction of new or significantly improved products or services into the establishment’s main market before the establishment’s competitors. This is different from the introduction by the establishment of new or significantly improved product that is already available from the establishment’s main competitors.</p>
Innovation	h3x	<p><u>Main new or improved product or service</u> is defined as the new or significantly improved product or service that generates the largest proportion of annual sales in monetary value (not volume) among all new or significantly improved products or services.</p> <p>The description has to be as detailed as possible.</p> <ul style="list-style-type: none"> • <u>Examples of good descriptions for manufacturing</u> are: packaging material produced with a new chemical that makes the product stronger; started producing liquid soap; new exterior paint made with quartz (new input). Bad descriptions are: packaging material; paint. • <u>Examples of good descriptions for services</u> are: new menu with food for diabetic (restaurant); adding a spa service (hotel); an electronics store that starts offering repair program (retail); introduced free wireless internet usage for customers while they are at the café. Bad descriptions are: new menu; spa; cosmetics goods; Wi-Fi.
Innovation	h4x	<p>Description of how the establishment’s main new or improved product or service differs from the products or services already produced or offered by the establishment. The description has to be as detailed as possible.</p>
Innovation	h5	<p><u>New or improved processes</u> include the introduction by the establishment during the reference period of: a) methods of manufacturing products or offering services; b) logistics, delivery, or distribution methods for inputs, products, or services; c) supporting activities.</p> <ul style="list-style-type: none"> • <u>New or improved methods of manufacturing products</u> include: a) changes in production techniques or process of production; b)

Section	Number	Instructions
		<p>introduction of new technology for production; c) introduction of automation of processes previously man-made; d) introduction of new process of finishing, packaging, or quality control; e) introduction of new or significantly improved production equipment not previously used; f) introduction of new software for production.</p> <p><i>Examples include: a furniture maker that buys and makes use of an electric sander; a shoe manufacturer begins using a computerized sewing machine; an electronics manufacturer installs new lighting to improve productivity of workers.</i></p> <ul style="list-style-type: none"> • New or significantly improved methods of offering services include: <ul style="list-style-type: none"> a) changes in technique or equipment to perform the service or to offer the product; b) introduction of new technology to perform the service or to offer the product; c) introduction of new software to perform the service or to offer the product; d) introduction of automation of processes previously man-made; e) introduction of internet based service delivery options; f) increased accessibility and/or changes in the degree of self-service. <p><i>Examples include: a hotel or restaurant begins to use electronic records and billing; a restaurant buys a new oven to offer pizza; an internet café begins an automated billing system.</i></p> <ul style="list-style-type: none"> • New or improved <u>logistics, delivery, or distribution methods for inputs, products, or services</u> both for <u>manufacturing</u> and <u>services</u> include: <ul style="list-style-type: none"> a) changes in how inputs are delivered to the establishment, for ex. outsourcing transport that previously was done in-house; b) changes in how products or services are delivered to clients; c) introduction of scanning to register goods using bar codes; d) introduction of new software to manage inventories; e) changes in the supply chain management. <p><i>Examples include, introduction of home delivery service; new forms of warranty; new forms of purchase on credit; use of internet for ordering and delivery.</i></p> <ul style="list-style-type: none"> • New or improved <u>supporting activities</u> introduced by the establishment in the reference period <p><i>Examples of new or improved production process both for <u>manufacturing</u> and <u>services</u> include: a) changes in the accounting method: started using IFRS (International Financial Reporting Standards); introduced new and improved accounting software that reflects the latest legislation changes; b) changes in the purchasing method: introduced Kanban scheduling system; expanded the supplier network to avoid reliance on one or two suppliers; c) changes in the maintenance method: introduced total productive maintenance (TPM); always have critical machinery parts in stock, in case of their breakdown they can be replaced quickly and reduce down-time; introduced 5S system (sort, set in order, shine, standardize, sustain); started training employees in safety, health and environment; d) changes in the quality control system: introduced Kaizen and 6Sigma methods; defined and written down responsibility and authority making decisions; introduced a procedure for recording and dealing with customer complaints; introduced monitoring of input</i></p>

Section	Number	Instructions
		<i>quality.</i>
Innovation	h6x	<p><u>Main new or improved process</u> is defined as the new or improved process that has the biggest impact on one of the following dimensions: decrease unit costs of production or delivery, increase quality, produce or deliver new or improved product. The description has to be as detailed as possible.</p> <p>Examples of good descriptions for manufacturing are: introduced continuous production monitoring (lean manufacturing); introduced new automation equipment on the production line, before done by hand; introduced a bar-coded goods-tracking system. Bad descriptions are: new production method; new equipment; new delivery method.</p> <p>Examples of good descriptions for services are: introduced a bar-coded goods tracking system; introduced a self-checkout system; introduced a system allowing customers to track the parcels sent to them.</p>
Innovation	h7x	The description of how the establishment's main new or improved process differs from to the most similar process that is or was used by this establishment. The description has to be as detailed as possible.
Innovation	BMh1	<u>Acquisition of external knowledge</u> : includes the acquisition of rights to use patents, non-patented inventions, licences, disclosures of know-how, trademarks, designs and patterns from other establishments and institutions such as universities and research institutions, other than R&D. It may also include computer services and other scientific and technical services for product and process innovation activities.
Innovation	BMh2	<u>Internal R&D</u> : R&D or research and development refers to a specific group of activities that a business chooses to conduct with the intention of making a discovery that can either lead to the development of new products or service or procedures, or to improvement of existing products or service or procedures. For example, laboratory research for a new chemical compound of paint would be research and development while market research surveys or internet surfing are NOT considered to be R&D. This question refers to R&D spending within the establishment.
Innovation	BMh3	<u>R&D contracted out</u> : R&D as defined in BMh2. This question refer to R&D spending contracted with other companies, institutions (such as universities or private or government R&D institutes), or other establishments of the same firm.
Innovation	h8	<u>Spending on R&D</u> : R&D as defined in BMh2. Here R&D spending either in-house or by contracting other companies is considered. Exclude market research activities.
Innovation	h9	<u>Cost of R&D</u> refers to how much money was spent on R&D either in-house or contracted to other companies. R&D as defined in BMh2.

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		Includes all spending related to R&D (personnel costs, materials, etc.). The cost should be provided in Local Currency Unit (LCU)
F. CAPACITY (Manuf)		
Capacity	f1 (Manuf)	<u>Capacity utilization</u> : is the output or production level compared to the full-production capacity, that is, the maximum level of production that could reasonably be expected under normal conditions fully utilizing the machinery, equipment and employees in place. This question only refers to the production facility and not the administrative offices.
Capacity	f2 (Manuf)	<u>Hours per week of operation</u> includes the time that machines and/or employees are engaged in some type of mechanical, physical, or chemical transformation of materials into new products or in which the assembly of components into new products takes place, including maintenance. This question only references the production facility and not the administrative offices.
T. TIME USE OF TOP MANAGER		
Time Use of Top Manager	BMt1	<u>Frequency of meetings with other managers</u> : the typical week is the most common type of week in the year regarding the characteristic being asked. For answers such as “meet once every 3 weeks”, in a typical week there are 0 meetings (since there will be no meetings in most weeks), and the answer “Never” should be chosen.
Time Use of Top Manager	BMt2	<u>Frequency of meetings with suppliers</u> : individuals or firms that provide material inputs, or supplies, or finished goods, or materials purchased to resell are all considered suppliers. Typical week is defined in BMt1.
Time Use of Top Manager	BMt3	<u>Frequency of meetings with employees</u> : self-explanatory. Typical week is defined in BMt1.
Time Use of Top Manager	BMt4	<u>Meetings with more than one other participant</u> : self-explanatory. Typical week is defined in BMt1.
Time Use of Top Manager	BMt5	<u>Meetings lasting longer than one hour</u> : self-explanatory. Typical week is defined in BMt1.
G. LAND AND PERMITS		
Land	g6a g6b g6c	<u>Percentage of buildings owned, rented, or leased</u> : If establishment occupies several buildings, the percentages should be computed for all buildings.
Land	g1a g1b g1c	<u>Percentage of land owned, rented, or leased</u> : Mark “DOES NOT APPLY” if the establishment occupies a floor or part of a building.
Land	g2	<u>Application for a construction-related permit</u> : When interviewing construction businesses, these permits refer to both those related to the expansion or construction of the establishment’s premises and to permits required in order to carry out construction work for clients.
Land	g3	<u>Days to obtain construction-related permit</u> : the period between the time the

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		application was completed and submitted and the time it was granted.
Land	g4	<u>Opinion based or sensitive</u>
Land	g5a (Serv) g5bx (Serv) g5b (Serv)	<i>Total selling area</i> refers to the space where sales take place. It does not include warehouses or administrative offices. Whenever the establishment is composed of several locations the selling areas of each location should be added.
Land	g30a	<u>Opinion based or sensitive</u>
I. CRIME		
Crime	i1	<i>Pay for security</i> : includes expenses on equipment, personnel, and professional security services, including payments that consist as part of rent, fees, or dues to occupy a building. Expenses on internet security and protection against hackers should also be included.
Crime	i2a i2b	<i>Total annual cost of security</i> : include all expenditures under i1, providing responses as either a percentage of annual sales or in local currency, but not both.
Crime	i3	<i>Experienced losses from theft, robbery, vandalism, arson</i> . Include losses due to hacking or internet fraudulent transactions that may have affected the establishment.
Crime	i4a i4b	<i>Total losses from theft, robbery, vandalism, arson, including, including losses due to hacking and internet fraudulent transactions</i> : responses as either a percentage of annual sales or in local currency, but not both.
Crime	i30	<u>Opinion based or sensitive</u>
K. FINANCE		
Finance	k1c	<i>Purchases of material inputs or services on credit</i> : include all materials and inputs paid for by the establishment after delivery or provision of services, regardless of whether formal financing was used.
Finance	k2c	<i>Percentage of this establishment's total annual sales of its goods or services sold on credit</i> : include all materials and inputs paid for by customers after delivery or provision of services, regardless of whether formal financing was used.
Finance	k3a k3bc k3e k3f k3hd BMk3a BMk3b BMk3hd	<i>Financing of working capital</i> refers to financing of short-term activities, such as purchases of inputs and raw materials, covering wage bills, etc. It does not refer to larger investments, such as in machinery or equipment. Note that cash provided from the establishment's own funds is considered retained earnings. It is important for the enumerator to make sure that the various sources do add up to 100%. Both domestic and foreign banks are included in k3bc
Finance	BMk2	<i>Share or working capital financed by group</i> : a group is a collection of parent and subsidiary firms that function as a single economic entity through a common source of control. See also page 2 of this questionnaire manual.
Finance	k4	<i>Purchase of fixed assets (new or used) including land, buildings, machinery</i> .

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		<i>equipment, and vehicles</i> : self-explanatory
Finance	n5a n5b	<p><i>Purchase of (new or used) machinery, equipment, and vehicles</i>: includes anything used directly by the establishment to produce goods or provide services. Vehicles include transport and loading and unloading vehicles. It should include not only the purchase cost but also all other costs involved in the investment such as transport of the item and installation cost. Computer hardware should be considered as equipment.</p> <p><i>Land and buildings</i>: is the annual investment in land, buildings and structures used directly or indirectly by this establishment to produce goods and services. Included are expenditures for new and used structures (including those under construction at the end of last complete fiscal year), fixtures and equipment, additions, major alterations and improvements to existing facilities, and capitalized repairs.</p>
Finance	k5a k5i k5bc k5e k5f BMk5a BMk5b BMk5hdj k5a1 k5i1 k5bc1 k5e1 k5f1 BMk5a1 BMk5b1 BMk5hdj1	<p><i>Financing of fixed assets</i> include any purchases made by the establishment as described in K.4. Note that cash provided from the establishment's own funds is considered retained earnings.</p> <p>Importantly:</p> <p>(i) enumerator should ask respondent whether answering in percentages or local currency units (LCU) is more convenient. All answers should be provided in only one form (some in percentages and some in LCU are not acceptable).</p> <p>(ii) if answering in percentages, enumerator should make sure that the various sources do add up to 100%. This latter check will be automatically performed in CAPI.</p>
Finance	BMk4	<i>Proportion of fixed assets financed by the same group</i> : Group is defined in BMk2.
Finance	BMk5	<i>Lease any fixed assets</i> : Leasing is a process by which a firm can obtain the use of a certain fixed assets on a rental basis. This avoids the need to invest capital in fixed assets. Ownership rests in the hands of the financial institution or leasing company, while the business has the actual use of it.
Finance	BMk6	<i>Acquire intangible assets</i> : Intangible assets are identifiable non-monetary assets without physical substance. The three critical attributes are identifiability, control (power to obtain benefits from the asset), future economic benefits (such as revenues or reduced future costs). Intangibles can be acquired by separate purchase; as part of a business combination; by a government grant; by exchange of assets; by self-

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		creation (internal generation). Examples include: patented technology, computer software, databases and trade secrets; trademarks, internet domains, newspaper mastheads; video and audiovisual material; customer lists; licensing, royalty and standstill agreements; import quotas; franchise agreements; customer and supplier relationships; marketing rights.
Finance	k4b (Manuf)	<u>Purchase of fixed assets (new or used):</u> Self-explanatory.
Finance	n5c (Manuf) n5d (Manuf)	<u>Cost of purchased fixed assets:</u> The category <u>machinery, vehicles and equipment</u> is the annual investment of anything used directly by this establishment to produce. Vehicles include transport and loading and unloading vehicles. It should include not only the purchase cost but also all other costs involved in the investment such as transport of the item and installation cost. Computer hardware should be considered under equipment <u>Land, buildings</u> is the annual investment in land, buildings and structures used directly or indirectly by this establishment to produce goods and services. Excluded are investments for property leased to others. Included are expenditures for new and used structures (including those under construction at the end of last complete fiscal year), fixtures and equipment, additions, major alterations and improvements to existing facilities, and capitalized repairs. Also included are expenditures made by the establishment for structures which, on completion, were, or are, to be sold or leased back to that establishment or firm.
Finance	k6	<u>Checking/savings account.</u> In many countries, a checking account is known as a “current account”
Finance	k7	<u>An overdraft facility</u> is a flexible account that allows firms to draw upon in the event their account balance becomes negative. The firm will incur fees or are subject to interest payments if they exercise this option.
Finance	k8	<u>A line of credit</u> is an available amount of credit that the establishment can draw upon or leave untapped. Lines of credit usually carry monthly interest rates, and are repaid quickly (as soon as the establishment’s cash flow allows for repayment). They may or may not have a defined date of expiration. <u>A loan</u> is generally a much less flexible form of finance. It comes in fixed amounts (rather than ranges), carry annual interest rates (either fixed or floating), and they carry a determined term to maturity (finite period for repayment).
Finance	BMk7	<u>Reason for not having a loan or line of credit:</u> Self-explanatory
Finance	k9	<u>Type of financial institution granted this loan or line of credit:</u> self-explanatory

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	BMk8 BMk8x	<i>Bank providing the most recent line of credit or loan:</i> The list of banks varies by country; Self-explanatory. <i>Other</i> must be specified in writing. This variable should be codified after field work is finished to make sure that “other” does not include the banks that are given in the options of BMk8.
Finance	k10	<i>Year the most recent line of credit or loan was approved:</i> self-explanatory
Finance	k11	<i>Value of the loan or line of credit:</i> This question refers to the value of the loan at the time of approval, as it was specified in the credit agreement. The respondent should answer according to what was specified in the loan contract. For lines of credit, consider the full amount available to the establishment.
Finance	BMk9 BMk9x	<i>Currency of the most recent line of credit or loan:</i> self-explanatory <i>Other</i> must be specified in writing. This variable should be codified after field work is finished to make sure that “other” does not include the currencies that are given in the options of BMk9.
Finance	BMk10	<i>Original duration of the most recent line of credit or loan:</i> refers to the duration at the time of approval of the most recent line of credit or loan.
Finance	k13 k14a k14b k14c k14d k14e	<i>Collateral</i> refers to property of the business or personal property of the manager or owners that is used to secure the loan in the event that the establishment defaults on its payment obligations. Collateral only refers to real property or financial assets, not to personal guarantees by third parties.
Finance	k15a	<i>Value of collateral:</i> the value of the collateral on the most recent loan or line of credit.
Finance	k15b	<i>Total number of outstanding lines of credit or loans:</i> An <i>outstanding loan</i> is a loan with principal value that has not yet been fully repaid. An <i>outstanding open line of credit</i> is one from which the establishment has withdrawn funds and has not yet fully repaid.
Finance	k15c	<i>Total value of all outstanding loans or lines of credit:</i> the unpaid portion of loans and lines of credit at the time of the survey. This is not the total value of the loans or lines of credit at the time of disbursement. If a line of credit has not been used, the outstanding value of that line of credit is 0.
Finance	k15d	<i>Personal loans used for business financing:</i> if an owner has taken out any personal loans in his/her name and is using those personal loans to finance the business. This does not include loans made to the establishment where the owner is a signatory on behalf of the establishment.
Finance	k16	<i>Establishment applied for any lines of credit or loans:</i> self-explanatory

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Finance	k17	<i>Main reason to not apply for any line of credit or loan:</i> self-explanatory
Finance	k20a1	<i>Outcome of application for line of credit or loan:</i> self-explanatory
Finance	k21	<i>Financial statements checked and certified by auditor:</i> self-explanatory
Finance	k30	<u>Opinion based or sensitive</u>
J. BUSINESS-GOVERNMENT RELATIONS		
Business-Government Relations	h7a	<u>Opinion based or sensitive</u>
Business-Government Relations	j2	<i>Percent of total senior management's time:</i> estimate of percentage of senior managers' time spent dealing with government regulations, inspections, negotiations and other bureaucratic burden. This is time that would otherwise be spent on business matters. It should not include time spent negotiating procurement contracts with the government - only time dealing with red tape and bureaucracy.
Business-Government Relations	j3	<i>Visitations and inspections from tax inspectors:</i> On-site and off-site inspections, scheduled and un-scheduled, are to be included.
Business-Government Relations	j4	<i>Visitations and inspections from tax inspectors:</i> Self-explanatory
Business-Government Relations	j5	<u>Opinion based or sensitive</u>
Business-Government Relations	BMj1a BMj1b BMj1c	<u>Opinion based or sensitive</u>
Business-Government Relations	j6a	<i>Attempt to secure a government contract:</i> self-explanatory
Business-Government Relations	j6	<u>Opinion based or sensitive</u>
Business-Government Relations	j7a j7b	<u>Opinion based or sensitive</u>
Business-Government Relations	j10	<i>Application to obtain an import license:</i> An import license is a document issued by a national government authorizing the importation of certain goods into its territory. Each license specifies the volume of imports allowed, and the total volume allowed should not exceed the quota. Licenses can be sold to importing companies at a competitive price, or simply a fee. Government may put certain restrictions on what is imported as well as the amount of imported goods and services. Imports refer to both imports of final goods for sale as well as imports of materials/intermediate goods.
Business-	j11	<i>Days to obtain an import license:</i> The period between the time the

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Government Relations		application was completed and submitted and the time it was granted. Import license defined as in j10.
Business-Government Relations	j12	<u>Opinion based or sensitive</u>
Business-Government Relations	j13	<i>Application to obtain an operating license: Licenses</i> are defined as state-issued documents certifying the right of its holder to engage in a particular business activity. It is the authorization to carry out an activity on a continuous basis (e.g. license to sell alcohol, license to import, license to operate) If the establishment applied more than once during the reference period, an average wait should be recorded. This includes renewals of operating licenses.
Business-Government Relations	j14	<i>Days to obtain an operating license:</i> The period between the time the application was completed and submitted and the time it was granted.
Business-Government Relations	j15	<u>Opinion based or sensitive</u>
Business-Government Relations	BMj2a BMj2b BMj2c	<u>Opinion based or sensitive</u>
Business-Government Relations	BMj3a BMj3b BMj3c	<u>Opinion based or sensitive</u>
Business-Government Relations	j30a j30b j30c j30e j30f h30 BMj4a BMj4b BMj4c	<u>Opinion based or sensitive</u>
Business-Government Relations	BMj5 BMj5x	<i>Highest priority public spending areas:</i> self-explanatory <i>Other</i> must be specified in writing. This variable should be codified after field work is finished to make sure that “other” does not include the areas that are options in BMj5.
L. LABOR		
Labor	11	<i>Number of permanent, full-time employees last complete fiscal year:</i> all employees that are contracted for one or more fiscal years and/or have a guaranteed renewal of employment or an open-ended contract. These employees work a full shift, though this definition may vary by country

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		<p>and by industry.</p> <p>Include paid and unpaid employees (for ex. family members if any). All employees and managers (including respondent) should be counted.</p> <p>In many countries, firms keep employees under temporary contracts that get renewed every year. In these instances, given that workers work a full year they should be included. In other countries, firms “outsource” their employment so that they hire a third party for its employees: in this case all these employees should be accounted for as well, to the extent that they meet the criteria explained above.</p>
Labor	12	<i>Number of permanent, full-time employees three complete fiscal years ago:</i> see l1
Labor	13a (Manuf) 13b (Manuf)	<p><i>Number of permanent, full-time production workers</i> are all workers directly involved in the production process. Typically they are physically located in the plant of the manufacturing establishment, separate from administration and sales. They are engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, product development, auxiliary production for plant’s own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations. Plant supervisors and production managers are considered production workers.</p> <p><i>Number of permanent, full-time non-production workers</i> are those workers employed in sales (including driver-salespersons), sales delivery (highway truck drivers and their helpers), janitorial and guard services, advertising, credit, collection, installation and servicing of own products, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.) are included.</p> <p>Non-production workers are NOT engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, product development, auxiliary production for plant’s own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations. Typically they are physically located in adjacent or separate premises to the production plant.</p>
Labor	14a1 (Manuf) 14a2 (Manuf) 14b (Manuf)	<p><i>Highly skilled production workers.</i> Highly skilled production workers are those workers involved in the production process whose main tasks and duties involve complex problem solving, decision making and creativity, technical and practical tasks requiring extensive body of theoretical, technical, procedural, and factual knowledge in a specialized field. A highly skilled worker usually has attended a higher educational institution for at least one year or more after completing secondary school. Skill is defined based on the occupation or tasks the</p>

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		<p>individual performs rather than his/her qualifications. This type of skills corresponds to skill level 3 and 4 in the ILO classification.</p> <p><u>Semi-skilled production workers.</u> Semi-skilled production workers are those workers involved in the production process whose main tasks and duties involve operating and maintaining mechanical and electrical equipment, driving vehicles, manipulating, ordering and storing information. A semi-skilled worker may have completed some secondary level education or vocational training to acquire the skills required for the job. A semi-skilled skilled worker may also have learned the skills on the job through experience or on the job-training. Skill is defined based on the occupation or tasks the individual perform rather than his/her qualifications This level of skills corresponds to skill level 2 in the ILO classification.</p> <p><u>Unskilled production workers</u> are workers engaged in production operations and whose main tasks and duties involve the performance of simple and routine physical or manual task, such as cleaning, digging, lifting, packaging, and carrying materials by hand, etc. These workers are <u>unskilled</u> in that the tasks they perform don't require special training, education, or skills to be performed. This type of skills corresponds to skill level 1 in the ILO classification.</p>
Labor	15 (Serv) 15a (Manuf) 15b (Manuf)	<p><u>Number of permanent, full-time workers that are female:</u> Self-explanatory</p> <p><u>Number of permanent, full-time production workers that are female.</u> Self-explanatory</p> <p><u>Number of permanent, full-time production workers that are female.</u> Self-explanatory</p>
Labor	16	<p><u>Full-time temporary or seasonal employees</u> are defined as all short-term or seasonal (i.e. for less than a fiscal year) employees (paid or unpaid) with no guarantee of renewal of employment contract and work a full work week for the term of their contract.</p> <p>“Temporary” workers who are constantly renewed every year and work for a full year should be accounted as permanent.</p>
Labor	16a	<u>Number of full-time temporary or seasonal that are female;</u> self-explanatory
Labor	18	<p><u>Average length of employment of all full-time temporary or seasonal employees:</u> the number of months that the worker was contracted for work that occupied employees for a full work week. If average full-time temporary or seasonal employment was for less than one month, enumerator should write 1.</p>
Labor	19b	<p><u>Percentage of full time permanent workers who completed secondary school:</u> “Secondary school” is considered the level of education prior to university. More precisely, this question refers to upper secondary (high school). This includes all workers who have completed secondary school, regardless</p>

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		of whether they went on to further education or not. To be clarified on a country-by-country basis.
Labor	BM11	<i>Share of employees with a university degree:</i> Only completed university degrees are considered, attending a university without obtaining a degree should be excluded.
Labor	110	<i>Formal training:</i> has a structured and defined curriculum. It may include classroom work, seminars, lectures, workshops, and audio-visual presentations and demonstrations. This does not include training to familiarize employees with equipment and machinery on the shop floor, training aimed at familiarizing employees with the establishment's standard operation procedures, or employee orientation at the beginning of an employee's tenure. <i>In-house training</i> may be conducted by other non-supervisory employees of the establishment, the establishment's supervisors or managers, or the establishments training centers.
Labor	BM12	<i>Primary focus of the formal training programs:</i> self-explanatory
Labor	111a (Manuf) 111b (Manuf)	<i>Percentage of production vs. non-production employees that were trained:</i> Self-explanatory
Labor	130a 130b	Opinion based or sensitive
M. BUSINESS ENVIRONMENT		
Business Environment	m1a	Opinion based or sensitive
N. PERFORMANCE		
Performance	n2a n2e (Manuf) n2b n2f n2i (Retail) n2p (Manuf)	<i>Total cost of labor, including wages, salaries and benefits</i> is the total annual wages and all annual benefits, including food, transport, social security (i.e. pensions, medical insurance, and unemployment insurance). <i>Raw materials and intermediate goods: (Manuf)</i> is the cost of all inputs in the production activity. This is usually an item directly taken from the financial statements. <i>Electricity</i> is the total annual cost of electric energy purchased from public or private utility companies or received from other establishments that belong to the same firm. Exclude the value of electricity generated and used at this establishment. <i>Fuel</i> is the total annual cost of all fuels consumed for heat, power, transportation, or the generation of electricity. Do not include the estimated costs of fuels, such as sawdust or blast furnace gas, produced as a byproduct of your manufacturing activities. Include anthracite and

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		<p>bituminous coal, coke, natural and manufactured gas, fuel oil, liquefied petroleum gas, gasoline, and all other fuels, including purchased steam. Be sure to include fuel used to power delivery trucks, forklifts, or other motor vehicles associated with the establishment.</p> <p><i>Cost of Finished goods and materials purchased to resell: (Retail)</i> is the cost of all finished goods and materials purchased to be resold. This is usually an item directly taken from the financial statements. For an example please see the income statement in the next section.</p> <p><i>Total cost of sales:</i> this is the total costs of production of all goods and services produced and sold by the establishment. It includes the cost of labor, materials, inputs and depreciation of assets. It does not include administrative cost. For manufacturing establishments who also resell goods produced by other establishments (i.e. they engage in both manufacturing and retail activities) this should include both cost of production and cost of finished goods purchased to resell. For an example please see the income statement in the next section</p>
Performance	n2e1 (Manuf)	<i>Total cost of raw materials and intermediate goods used in production:</i> note that this question refers to the period of the last complete fiscal year -1. For example, if the reference period of the last completed fiscal year is 2017, this question refers to fiscal year 2016.
Performance	n7a (Manuf)	<p>This question is designed to ascertain the market value of the establishment's capital, regardless of ownership</p> <p>You can ask the manager to estimate the market value if all of the equipment were purchased on the open market. If the respondent states that there is no market, ask how much the respondent would be willing to pay for the capital, knowing what it can produce in its <i>current condition</i>. Estimate how much it would cost to buy machinery in the current market which is similar in terms of age and characteristics. Keep in mind that it is one of the most important questions in the questionnaire.</p>
Control Information	a15a1ax a15a2a a15a3 a15a1bx a15a2b a15b3 a15a1cx a15a2c a15c3 a15d a15m a15y a15h a15min	<i>End-of interview questions:</i> self-explanatory

Section	Number	Instructions
	a16 a17 a17x a18 a19h a19m	
END OF MAIN QUESTIONNAIRE INTERVIEW		
<p>SUPERVISOR SECTION: the following questions are to be answered by supervisors following the conclusion of the interview. They include coding of some respondent answers and the confirmation of details from the interview.</p> <p>Supervisors should be careful to use this stage to review key financial (sales and costs) and other quantitative figures; flags and assumption violations are ideally noted at this stage, immediately following the interview, rather than at later stages of quality control.</p> <p>Key areas for supervisor review include (but are not limited to): annual sales (d2, n3), description of the main activity (d1a1x), annual employment (l1, l2), costs (n2a, n2b, n2e, n2i, n2p, and n7a), and descriptions of innovative activity (h3x, h6x, and h7x). Supervisors should also review any apparent errors.</p>		
Control Information	a13	<i>Supervisor Code:</i> self-explanatory
Control Information	a3b	<i>Official capital city:</i> coded based on a3x
Control Information	a3c	<i>Main business city:</i> coded based on a3x
Control Information	a3	<i>Size of locality:</i> coded 1 if establishment is in the main business city; coded based on a3x
Sales and Supplies	d1a2	<p><i>Sector code for establishment's main activity or product/service:</i> Coding will be made in the office on the basis of the description provided in d1a1x, according to 4-digit industry classification codes using the United Nations ISIC Rev.3.1.</p> <p>http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=17</p>

GREEN ECONOMY MODULE		
Section	Number	Instructions
Control Information	BMGa22	<i>Confirm GEM Respondent:</i> self-explanatory.
	BMGa23	<i>Mode of implementation:</i> self-explanatory.
	BMGa23a1x BMGa23a2 BMGa23a3x	<i>Contact information for GEM respondent</i> self-explanatory.
	BMGa14gd BMGa14gm BMGa14gy BMGa14gh BMGa14gmin	<i>Time face-to-face interview begins:</i> self-explanatory.
BMGA. ENVIRONMENT-RELATED ASPECTS		
Environment-Related Aspects	BMGa1	<i>Strategic objectives mentioning environmental or climate change issues:</i> Self-explanatory.
Environment-Related Aspects	BMGa2	<i>Manager responsible for environmental and climate change issues:</i> Self-explanatory.
Environment-Related Aspects	BMGa3	<i>To whom does the manager responsible for environment and climate change issues report:</i> Self-explanatory.
Environment-Related Aspects	BMGa4	<p><u>Environmental standards:</u></p> <p>An environmental standard is a policy guideline that regulates the effect of human activity on the environment. It is a set of quality conditions that are adhered to or maintained for a particular environmental component and function. The different environmental activities have different concerns and therefore different standards.</p> <p>The three main types of environmental standards (ambient, emission, and technology) work together to help regulate the impact human activity has on the environment. The regulation of ambient pollutants in the air ensures that the air remains breathable and does not further deteriorate. Emission standards are enacted to control the amount of pollutants that are released into the air in order to maintain air quality. Technological standards are put in place to encourage progressiveness across different industries.</p> <p><u>An environmental certification</u> is a form of environmental regulation and development where a company can voluntarily choose to comply with predefined processes or objectives set forth by the certification service. Most certification services have a logo (commonly known as an ecolabel) which can be applied to products certified under their standards. This is seen as a form of corporate social responsibility allowing companies</p>

		<p>to address their obligation to minimize the harmful impacts to the environment by voluntarily following a set of externally set and measured objectives.</p> <p>Examples of environmental certifications include the following:</p> <ul style="list-style-type: none"> • Carbon Trust Standard • Eco-Management and Audit Scheme (EMAS) • Forest Stewardship Council (FSC) • ISO 14001 • MCERTS
BMGB. EXPOSURE TO ENVIRONMENTAL IMPACTS		
Exposure to Environmental Impacts	BMGb1	<p><u>Experienced monetary losses from extreme weather:</u> Extreme weather includes tropical cyclones, floods, droughts, heat waves, severe storms (e.g. tornadoes, hail, and straight-line winds), landslides, wildfires, crop freeze events, and winter storms. Extreme weather excludes earthquakes.</p> <p><u>Monetary losses from extreme weather</u> include incurred costs and losses of sales or assets.</p>
Exposure to Environmental Impacts	BMGb2	<p><u>Experienced monetary losses from pollution:</u></p> <p><u>Pollution</u> is the introduction of contaminants into the natural environment that cause adverse change. It can take the form of chemical substances or energy, such as noise, heat or light.</p> <p><u>Pollutants</u>, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants.</p> <p><u>Monetary losses from pollution</u> include incurred costs and losses of sales or assets due to air pollution, light pollution, littering, noise pollution, soil contamination, radioactive contamination, thermal pollution, visual pollution, water pollution, and plastic pollution.</p>
BMGC. MANAGEMENT AND THE ENVIRONMENT		
Management and the Environment	BMGc1 BMGc2	<p><u>Monitor energy consumption:</u> This includes gathering detailed and timely enough data to identify which of the establishment's systems and machines are the biggest energy consumers, and which are costing the most to operate. It also includes monitoring invoices related to energy consumption.</p> <p><u>How often:</u> Self-explanatory</p>
Management and the Environment	BMGc3	<p><u>External energy consumption audit:</u> An energy audit is an inspection, survey and analysis of energy usage, to highlight the physical and behavioral changes that will reduce energy consumption. For industrial applications, the HVAC, lighting, and production equipment use the most energy, and hence are the primary focus of energy audits. The main issues of an audit process are the analysis of building and utility data, including study of the installed equipment and analysis of energy bills; the survey of real operating conditions; the understanding of the building behavior and of the interactions with weather, occupancy and</p>

		operating schedules; the selection and the evaluation of energy conservation measures; the estimation of energy saving potential; the identification of customer concerns and needs. The audit is <i>external</i> if it is not performed by the establishment or by the firm the establishment is part of.
Management and the Environment	BMGc4 (Manuf) BMGc5 (Manuf)	<u>Monitor water usage:</u> Monitoring water usage is the regular collection of information on the total amount of water drawn from all sources for any use during a given period. Water can be sourced from municipal water supplies or other water utilities; surface water, including from wetlands, rivers, lakes, and oceans; ground water (including wells); rainwater collected and stored by the establishment). Monitoring enables the establishment to understand water use patterns and identify potential inefficiencies. It is also essential to setting reduction targets in water usage. Monitoring water usage may be an integral part of an Energy Management System. Monitoring water usage starts by looking at the water invoices or receipts from suppliers (utilities), but ideally also includes sub-meter equipment to help quantify water use more granularly. <u>How often:</u> Self-explanatory
Management and the Environment	BMGc6 (Manuf)	<u>External water usage audit:</u> A water audit provides a full understanding of where and how water is used, wasted and discharged from the establishment. It usually starts with a desktop study, looking at bills, collate information relating to the bills including consumption, metering, waste water costs, tariffs, surface water charges, standing and fixed charges, arithmetic errors and more appropriate tariff structure where applicable. This is followed by a site survey reviewing the physical use and distribution of water, and validation of the integrity and water regulation compliance of both internal and external fire and plumbing systems. The result is a range of detailed reports and advice on how to improve effective water use. The audit is <i>external</i> if it is not performed by the establishment or by the firm the establishment is part of.
Management and the Environment	BMGc7	<u>Emit CO₂:</u> Self-explanatory
Management and the Environment	BMGc8 BMGc9	<u>Monitor CO₂ emissions:</u> Monitoring CO ₂ emissions refers to tracking how much CO ₂ is produced by the establishment's activities at a particular point in time. It is the key to the emissions trading systems. There is awareness of the contribution of different energy sources and production processes to emissions.

		<i>How often:</i> Self-explanatory.
Management and the Environment	BMGc10	<p><u>External audit of CO₂ emissions:</u> A CO₂ emissions audit provides a full understanding about the CO₂ emissions that the establishment is responsible for. It identifies the main types of emissions sources, which can be direct, energy indirect or other indirect sources. Direct emission sources include fuels combustion, owned transport, process emissions and fugitive emissions. Energy indirect emission sources include emissions related to the consumption of purchased electricity, heat, steam and cooling. Other indirect emission sources include purchased materials and fuels, transport-related activities, waste disposal, leased assets, franchising and outsourcing and sold goods and services. Emissions are calculated using appropriate conversion factors and suitable recommendations are typically made for future actions.</p> <p>The audit is <i>external</i> if it is not performed by the establishment of by the firm the establishment is part of.</p>
Management and the Environment	BMGc11	<p><u>Supply chain:</u> Supply chain is a system of organizations, people, activities, information, and resources involved in moving a product or service from supplier to customer. Supply chain activities involve the transformation of natural resources, raw materials, and components into a finished product that is delivered to the end customer.</p> <p>The question refers to the supply chain up to the establishment's output.</p>
Management and the Environment	BMGc12 (Manuf)	<p><u>Emit pollutants other than CO₂:</u> Pollutants other than CO₂ include other air pollutants, soil or land pollutants and water pollutants. A more detailed list is provided below.</p> <p><u>Conventional air pollutants other than CO₂</u> include nitrogen oxide (NO_x), Sulphur oxides (SO_x), particulate matter (PM10), carbon monoxide (CO), and similar.</p> <p><u>Other air pollutants include</u> other greenhouse gases (GHGs), volatile organic compounds (VOCs), heavy metals, chlorofluorocarbons (CFCs), dioxins and furans and similar.</p> <ul style="list-style-type: none"> • <u>Volatile organic compounds (VOCs):</u> VOCs are organic compounds (chemicals that contain carbon) that easily become vapors or gases. Along with carbon, they contain elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur or nitrogen. • <u>Heavy metals:</u> Metals with relatively high densities, atomic weights or atomic numbers, such as Mercury (Hg), Nickel

		<p>(Ni).</p> <ul style="list-style-type: none"> • <u>Dioxins and furans</u>: Compounds that are highly toxic environmental persistent organic pollutants (POPs). They are mostly by-products of various industrial processes. They include: polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans, polychlorinated/polybrominated biphenyls. • <u>Chlorofluorocarbons (CFCs)</u>: Fully halogenated paraffin hydrocarbons that contain only carbon, chlorine, and fluorine, produced as volatile derivative of methane, ethane, and propane. Many CFCs have been widely used as refrigerants, propellants (in aerosol applications), and solvents. <p><u>Soil/land pollutants</u> include heavy metals, chlorides and other pollutants.</p> <ul style="list-style-type: none"> • <u>Heavy metals</u>: Metals with relatively high densities, atomic weights or atomic numbers, such as Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Zinc (Zn) • <u>Chlorides</u>: Inorganic chemical compounds which contain chlorine. <p><u>Water pollutants</u> include organic carbon, nitrogen, phosphorous, chlorides, heavy metals and other.</p> <ul style="list-style-type: none"> • <u>Organic carbon</u>: Total organic carbon (TOC) is the amount of carbon found in an organic compound and is often used as a non-specific indicator of water quality or cleanliness of pharmaceutical manufacturing equipment. • <u>Nitrogen, Phosphorous</u>: Chemical elements. Self-explanatory. • <u>Chlorides</u>: Inorganic chemical compounds which contain chlorine. <p><u>Heavy metals</u>: Metals with relatively high densities, atomic weights or atomic numbers, such as Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Zinc (Zn).</p>
Management and the Environment	BMGc13 (Manuf) BMGc14 (Manuf)	<p><u>Pollutants other than CO₂</u>: See the list above.</p> <p><u>How often</u>: Self-explanatory</p>
Management	BMGc15	<u>External audit of pollutants other than CO₂</u> : Audit of pollutants

and the Environment	(Manuf)	other than CO ₂ provides a full understanding of where and how pollutants other than CO ₂ are discharged from the establishment. The audit is <i>external</i> if it is not performed by the establishment of by the firm the establishment is part of.
Management and the Environment	BMGc16 BMGc17	<u>Types of targets on energy consumption:</u> Targets on energy consumption may refer to the quantity of energy consumed, the cost of energy or both.
Management and the Environment	BMGc18 BMGc19	<u>Types of targets on CO₂ emissions:</u> Targets on pollution emissions to air, water or land may refer to absolute quantity targets, relative quantity targets or both. Target examples: <ul style="list-style-type: none"> • Reduce CO₂ emissions by at least 50% compared to 5 years ago; • Reduce CO₂ emissions per unit of output by 10 per cent compared to a year ago.
Management and the Environment	BMGc20 (Manuf) BMGc21 (Manuf)	<u>Types of targets on pollution emissions to air, water, soil or land:</u> Targets on pollution emissions to air, water or land may refer to absolute quantity targets, relative quantity targets or both. For the list of pollutants, refer to BMGc12 . Target examples: <ul style="list-style-type: none"> • Reduce particulate matter emissions by at least 10% compared to previous year; • Reduce nitrogen oxide emissions per unit of output by at least 20 per cent in the next 5 years; • Reduce CFC emissions by at least 5% compared to 5 years ago; • Reduce pesticide emissions by at least 10% compared to previous year.
Management and the Environment	BMGc22	<u>Manager responsible for environmental and climate change issues evaluated on meeting environmental targets:</u> This question aims to find out whether meeting environment-related targets (such as energy consumption, CO ₂ emissions or other pollution, or other environmental targets) is one of the criteria against which the performance of managers responsible for these areas is evaluated, and leads to financial consequences.
Management and the Environment	BMGc23a BMGc23b BMGc23c BMGc23d BMGc23e BMGc23f BMGc23g	<u>Adopt the following measures:</u> Implemented the following measures in their production or service delivery process in any part of the establishment, regardless of the reason for adopting them. <u>Heating and cooling improvements:</u> Examples include optimized use of process heat; modernization of cooling/refrigeration system; optimization of air conditioning system; optimization of

	<p>BMGc23h BMGc23i BMGc23j</p>	<p>exhaust air system and/or district heating system.</p> <p><u>Climate-friendly energy generation on site:</u> Examples include installation of combined heat and power (CHP) plant / cogeneration; biogas feed-in in local combined heat and power plant or domestic gas grid; switching to natural gas; exploitation of renewable energy sources (solar, hydro, wind).</p> <p><u>Machinery and equipment upgrades:</u> Examples include modernization of compressed air system; other industry-specific production process optimization / machine upgrade; production process innovation.</p> <p><u>Energy management:</u> Examples include introduction of energy management system; sub-metering / upgrade of an existing energy management system; (external) energy audit; installation of timers attached to machinery; installation of (de-)centralized heating systems.</p> <p><u>Waste minimization:</u> Examples include introduction of waste management system / recycling; upgrade of an existing waste management system / recycling; (external) waste audit.</p> <p><u>Air pollution control measures:</u> Examples include reducing vehicle exhausts, using high quality, cleaner fuel, installation of control devices for gaseous contaminants, installation of equipment for collecting fine particulates (cyclones, scrubbers, electrostatic precipitators, baghouse filters).</p> <p>If the establishment does not pollute air, enumerators may record “DOES NOT APPLY” for this option.</p> <p><u>Water management:</u> Examples include introduction of water management system; sub-metering / upgrade of an existing water management system; (external) water usage audit.</p> <p><u>Upgrades of vehicles:</u> Vehicle is defined as a machine that transports people or cargo, so the definition includes motor vehicles (cars, motorcycles, trucks, buses), railed vehicles (trains, trams), watercraft (ships, boats), wagons, bicycles and aircraft. Examples include modernization of vehicles; replacing part or all of the vehicles with more energy efficient and environment-friendly vehicles.</p> <p>If the establishment has no vehicles (owned, rented or leased), enumerators may record “DOES NOT APPLY” for this option.</p>
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Management and the Environment	BMGc24	<p><u>Biggest contributor to reducing establishment’s environmental impacts:</u> Environmental impact refers to the effect that the establishment’s activities have on the environment. This includes the following areas: air quality, biodiversity, climate change, landscape, noise and nuisance, waste, water quality and flood risk.</p>
Management and the Environment	BMGc25 BMGc26 BMGc27	<p><u>Energy efficiency</u> refers to reducing the amount of energy required to provide products and services.</p> <p><u>Energy efficiency enhancement measures:</u> These are measures that improve energy efficiency. Examples include heating and cooling improvements, machinery upgrades, energy management, lighting system improvements, etc.</p> <p><u>Adopted energy efficiency enhancement measures:</u> Self-explanatory.</p> <p><u>Energy efficiency enhancement measures developed by the establishment:</u> Developed within the establishment, using staff time or other resources.</p> <p><u>Main reason measures were not adopted:</u> The most important reason that prevented the establishment from adopting the measures.</p>
Management and the Environment	BMGc28	<p><u>Maximum payback time for energy efficiency investments:</u> Payback time is defined as the length of time that the energy efficiency investment takes to pay for itself through savings on</p>





		electricity/energy bills.
Management and the Environment	BMGc29	<i>Payback time compared with non-energy efficiency related measures:</i> Self-explanatory.
BMGD. ENVIRONMENTAL POLICY AND REGULATION		
Environmental Policy and Regulation	BMGd1	<p><i>Emissions trading system:</i> An emissions trading system is a policy instrument for managing greenhouse gas emissions. Under the ‘cap and trade’ principle, a maximum (cap) is set on the total amount of greenhouse gases that can be emitted by all participating factories, power stations and other installations with a net heat excess above a certain threshold. “<i>Allowances</i>” for emissions are then auctioned off or allocated for free, and can subsequently be traded. Installations must monitor and report their CO2 emissions, ensuring they hand in enough allowances to the authorities to cover their emissions. If emission exceeds what is permitted by its allowances, an installation must purchase allowances from others. Conversely, if an installation has performed well at reducing its emissions, it can sell its leftover credit. This allows the system to find the most cost-effective ways of reducing emissions without significant government intervention.</p> <p><i>The European Union Emissions Trading Scheme (EU ETS)</i> covers more than 11,000 factories, power stations, and other installations with a net heat excess of 20 MW in all 28 EU member states plus Iceland, Norway, and Liechtenstein.</p> <p><i>The Kazakhstan Emissions Trading Scheme</i> was launched in January 2013 and re-launched on 1 January 2018 with new allocation methods and trading procedures for all market participants. It includes companies from the following sectors: power and heat production, coal mining, oil and gas extraction, chemical industry, metallurgy, cement industry and other process industries.</p>
Environmental Policy and Regulation	BMGd2	<i>Adjustments in the production/service delivery processes:</i> Adjustments in the production or service delivery processes can entail anything that leads to the reduction in the firm’s emissions, such as replacing old machinery, equipment and vehicles with newer technologies, friendlier to the environment, and similar.
Environmental Policy and Regulation	BMGd3	<i>Extent of adjustments due to participation in emissions trading system:</i> Self-explanatory.
Environmental Policy and Regulation	BMGd4	<i>Compliance cost incurred due to participation in the emissions trading system:</i> This refers to the additional compliance costs incurred due to participation in the emissions trading system (i.e., compliance cost that would not be incurred had the

		establishment not participated in ETS), including costs of monitoring, verification, management and staff time, and fees.
Environmental Policy and Regulation	BMGd5	<i>Emission allowances:</i> Emission allowances to establishments participating in ETS can be auctioned and thus bought by the establishments. However, some emission allowances may be allocated to establishments for free.
Environmental Policy and Regulation	BMGd6	<i>Energy tax or levy:</i> Energy tax or levy is any tax or surcharge that the establishment is liable for and which is levied in proportion to that establishment's consumption of electricity, fuels made from petroleum, (natural) gas and coal. Examples: taxes on electricity, taxes on oil, gas. Note that corporate average fuel efficiency standards are not energy taxes.
Environmental Policy and Regulation	BMGd7 BMGd8	<i>Energy performance standard:</i> Energy performance standard is a prescription about the maximum energy use that is acceptable for a particular activity. <i>Which energy performance standard:</i> The energy performance standard may refer to the maximum amount of energy the product may consume in performing a specified task, or the maximum amount of energy the establishment may use to manufacture a unit of their product or to provide a particular service, or the maximum amount of energy the establishment may use to generate a unit of sales. If the establishment was subject to more than one energy performance standard, refer to the one with the highest compliance cost.
BMGE. ENVIRONMENTAL IMPACT OF THE ESTABLISHMENT		
Environmental Impact	BMGe1	<i>Amount of energy consumption:</i> The amount of energy or power used by the establishment, specifically from the sources listed in the question. <i>Amount of electricity consumed:</i> The amount of electric energy used by the establishment, in kilowatt hours (kWh). It includes electricity from the public and private grid, as well as any self-generated electricity (generators, solar panels, wind turbines, etc. owned by the establishment).
Environmental Impact	BMGe2 BMGe2u BMGe2x	<i>Fuels made from petroleum:</i> The amount of fuels made from petroleum used to generate energy consumed by the establishment (including for electricity generators). Fuels made from petroleum include gasoline, diesel oil, kerosene, and fuel oil (oils that make up the distillation residue). <i>Units for fuels made from petroleum:</i> Self-explanatory. <i>Other</i> must be specified in writing. This variable should be codified after field work is finished to make sure that "other"

		does not include units that are included in options 1-2.
Environmental Impact	BMGe3 BMGe3u BMGe3x (Manuf)	<p><u>Natural gas:</u> The amount of (natural) gas used by the establishment.</p> <p><u>Units for natural gas:</u></p> <ol style="list-style-type: none"> 1. kWh: kilowatt hours 2. MMBtu: one million British Thermal Units 3. Standard Cubic Foot (SCF): one cubic foot of gas at standard temperature and pressure (60 degrees Fahrenheit and sea level). Since both temperature and air pressure affect the energy content of a cubic foot of natural gas, the SCF is a way of standardizing. One SCF = 1020 BTUs. 4. Cubic meter – MCF: 1 MCF=1,000 cubic feet=1,020,000 Btu=1.02MMBTU <p><u>Other</u> must be specified in writing. This variable should be codified after field work is finished to make sure that “other” does not include units that are included in options 1-4.</p>
Environmental Impact	BMGe4	<u>Coal:</u> The amount of coal used by the establishment, in tonnes.
Environmental Impact	BMGe5	<u>Own renewable sources:</u> Renewable sources owned by the establishment. These include solar panels, wind turbines, geothermal power stations and biomass-fired power plants owned by the establishment. They exclude renewable energy purchased externally.
Environmental Impact	BMGe6	<u>Solid waste:</u> Any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded materials resulting from industrial, commercial, mining, and agricultural operations, and from community activities. The definition is not limited to wastes that are physically solid. Many solid wastes are liquid, semi-solid, or contained gaseous material.
Environmental Impact	BMGe7 (Manuf)	<p><u>Measurement of CO₂ emissions:</u> Self explanatory.</p> <p>Note:</p> <ul style="list-style-type: none"> • Measurement of CO₂ emissions refers to the act of determining the actual amount of CO₂ emissions (that is, quantity). • To monitor CO₂ emissions (see BMGe8) means to watch CO₂ emissions closely in order to observe, record, or detect. • Monitoring could be used as a method to determine if the CO₂ emissions are starting to approach, for example, the maximum allowance for CO₂ emissions, but measurement would be used to determine the actual quantity of CO₂

		emissions and how much below the maximum allowance they are.
Environmental Impact	BMGe8a BMGe8b BMGe8c BMGe8d (Manuf)	<i>Establishment's emissions</i> : Self explanatory. For definitions of various types of pollutants, see BMGc12 .
Environmental Impact	BMGe9a BMGe9b BMGe9c BMGe9d (Manuf)	<i>Measurement of the amount of emitted pollutants</i> : Self-explanatory. For definitions of various types of pollutants, see BMGc12 . For the difference between <i>monitoring</i> (BMGc13) and <i>measurement</i> , see the explanation in BMGe7 .
Control Information	BMGa15gd BMGa15gm BMGa15gy BMGa15gh BMGa15gmin	<i>Time face-to-face interview ends</i> : Self-explanatory
	BMGa24	<i>Same respondent as for the main interview</i> : Self-explanatory
	BMGa15a1dx	<i>Green economy module respondent position in firm</i> : Self-explanatory
	BMGa15a2d	<i>Green economy module respondent years working in firm</i> : Self-explanatory
	BMGa15a4d	<i>Green economy module respondent years in position in firm</i> : Self-explanatory
	BMGa15a3d	<i>Green economy module respondent's gender</i> : Self-explanatory

Income Statement

INCOME STATEMENT FISCAL YEAR XXXX		MANUFACTURING RODRIGUEZ LLC	
Sales		1,980,000	
Purchases of raw materials & intermediates	620,000		
Change in inventories of raw materials & intermediates	<u>-25,000</u>		
Cost of raw materials & intermediates	595,000		n2e
Direct labor	405,000		
Indirect labor	<u>13,000</u>		
Cost of labor	418,000		n2a
Other costs of production (overhead)	187,000		n2b (included here)
Total manufacturing costs	1,200,000		
Change in inventory products in process	<u>-200,000</u>		
Total costs of goods manufactured	1,000,000		
Change in inventory of finished goods	60,000		
Cost of goods sold (or cost of sales)	<u>1,060,000</u>		n2p
Gross profit	920,000		
Operating expenses (administrative and selling)	<u>600,000</u>		
Income before taxes	320,000		
Taxes	<u>32,000</u>		
Income after taxes	288,000		