Environmental Indicators (F-4)

1. Contact	
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2. Metadata update	
2.1. Metadata last certified	September 25, 2024
2.2. Metadata last posted	September 25, 2024
2.3. Metadata last update	September 25, 2024

3. Statistical presentation
3.1. Data description
The data are published according to the format of the United Nations Economic Commission for Europe (UNECE) environmental indicators (F-4). Data on pesticides consumption is derived from the external merchandise trade data: imported volume of pesticides minus exported volume.
F-4 (Pesticide consumption) – Data covers pesticide consumption in all sectors (not only in agriculture, forestry and gardening). Presented as a total quantity of pesticide consumption and also consumption of pesticides per unit of agricultural area.
3.2. Classification system
The Harmonized Commodity Description and Coding System (HS 2017); Classification of Economic Activities – GNC (NACE Rev.2) 006-2016 (2016).
3.3. Sector coverage
The object of research is any commodity included in the categories of pesticides, which entering and exiting the economic territory of a country.
3.4. Statistical concepts and definitions
Import – importing of products and re-import of exported goods.
Export – Both export of national products and re-export of imported goods.
Pesticides – Substances meant for preventing, destroying or mitigating any pest.
Insecticide – Pesticide used against insects.
Herbicide – Pesticide against unwanted plants (weed).
Desiccant – Hygroscopic substance that induces or sustains a state of dryness.
Fungicide – Pesticide for the control of fungi.
Bactericide – Pesticide for the control of bacteria.
Rodenticide – Pesticide for the control of rodens.
Plant regulator – Pesticide that retards the growth of plants.
3.5. Statistical unit
The statistical unit is any natural or legal person (enterprise, local authority, public entity, household) that fills the customs declaration.
3.6. Statistical population
External Merchandise Trade includes all goods that enter (import) or leave (export) statistical territory of a country and increase or decrease inventories of country's material resources, including goods processing.
3.7. Reference area
Entire country, excluding occupied regions.
3.8. Time coverage
Since 2006.
3.9. Base period

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4. Unit of measure
1000 hectares, ton, kg/hectare.

5. Reference period
Year.

6. Institutional mandate
6.1. Legal acts and other agreements
The Law of Georgia on Official Statistics;   https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf   Statistical Work Programme (annual);   https://www.geostat.ge/en/modules/categories/307/statistical-work-programme   Charter of the National Statistics Office of Georgia.   https://www.geostat.ge/media/20845/10%2Csaqstatis-konsolidirebuli-debuleba.pdf
6.2. Data sharing
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7. Confidentiality
7.1. Confidentiality – policy
1. The Law of Georgia on Official Statistics:

- According to the article 5 of the law Statistical confidentiality and exclusive use for statistical purposes – individual data collected or received by the producer of official statistics, relating to natural or legal persons, must be strictly confidential and used only for statistical purposes.
- According to the article 34 (Observing Confidentiality of Statistical Data) of the law 1. Data collected, processed, and stored to produce official statistics are confidential if they enable the direct or indirect identification of a statistical unit. In addition, aggregated data are subject to statistical confidentiality: a) Aggregates composed of 1 to 3 units, when the unit is a natural or legal person if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential by the Executive Director if required to ensure statistical confidentiality; b) Information declares as a state secret on the basis of the „Law of Georgia on State Secrets". 2. Confidential data shall be used exclusively for the purposes of producing statistics in accordance with this law. 3. Statistical data about the administrative body cannot be considered confidential information, except for the information determined by the Law of Georgia „On State Secrets". 4. Individual data obtained from publicly available sources, which are defined as public information in accordance with the legislation of Georgia, shall not be considered confidential information. 5. Confidential (individual) data may be published if there is written consent from the statistical unit regarding the publication of such data. 6. It is not allowed to disseminate and distribute confidential data or use it for non-statistical purposes.
- According to the article 38 (Confidentiality commitments) of the law the confidential statistical data collected and processed for statistical purposes shall not be used or disseminated either for personal, academic, research or any other activities, by the employees of the producers of Official Statistics.

  https://www.geostat.ge/media/56202/The-Law-of-Georgia-on-Official-Statistics.pdf
2. Data Confidentiality Policy at Geostat

   https://www.geostat.ge/media/20860/Data-Confidentiality-Policy-at-Geostat_En.pdf
3. Procedure for providing access to confidential data for research purposes

   https://www.geostat.ge/media/61533/Rule-on-Access-to-Confidential-Data-for-Scientific-and-Research-Purposes....pdf
4. The Law of Georgia on Personal Data Protection

   https://matsne.gov.ge/en/document/view/1561437?publication=9

7.2. Confidentiality – data treatment

- Confidentiality guidelines.
- Written undertakings by an employee of Geostat on ensuring confidentiality of gained/collected data as a result of official duties.

8. Release policy
8.1. Release calendar
Data dissemination dates are defined by the calendar developed on the basis of the Statistical Work Programme, which is published on the website of Geostat and is publicly available.
8.2. Release calendar access
https://www.geostat.ge/en/calendar
8.3. User access
All users have the equal access to the statistical data simultaneously.

9. Frequency of dissemination
Annual.

10. Accessibility and clarity
10.1. News release
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10.2. Publications
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10.3. On-line database
The data is available on the Geostat website as a spreadsheet: https://www.geostat.ge/en/modules/categories/565/environmental-indicators Also in the PC-Axis database: https://pc-axis.geostat.ge/PXweb/pxweb/en/Database/Database__Environment%20Statistics__Environmental%20Indicators/06.F_4.px/?rxid=24b16caf-6709-4f97-aea6-07704918cc68
10.4. Micro-data access
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10.5. Other
-
10.6. Documentation on methodology
Guidelines for the Application of Environmental Indicators https://unece.org/DAM/env/europe/monitoring/Indicators/F-4-en-final.pdf https://unece.org/DAM/env/europe/monitoring/Indicators/F-4-glos-en-final.pdf List of Pesticides evaluated by JMPR and JMPS https://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/lpe/en/
10.7. Quality documentation
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11. Quality management
11.1. Quality assurance
To ensure the quality of the statistical processes and products Geostat follows Chapter 10 – Quality of official statistics – of the Law of Georgia on Official Statistics, as well as the European Statistics Code of Practice, the UN Fundamental Principles of Official Statistics and Quality Assurance Framework of the European Statistical System (ESS QAF).
11.2. Quality assessment
Methodology and Quality Management Division of Geostat, along with the sectoral departments, is responsible for the quality of the produced statistical products and processes. The Division carries out quality audit, self-assessment of statistical processes and assesses the risks for the quality of statistical processes and products. Geostat has developed policy documents, guidelines and standard routine descriptions. These documents ensure the standardization of statistical processes and products and the establishment of a unified quality assurance system. Quality policy is available on the following link: https://www.geostat.ge/media/44380/QP_Geostat_EN.pdf

12. Relevance

12.1. User needs
The main users of the data are: government institutions, business sector, non-governmental organizations, international organizations, experts, media, compilers of the Energy Environmental Accounting System (SEEA), energy policy makers and others. They need these data to conduct various statistical analyzes. Energy policy makers use energy statistics to plan strategies, develop environmental policies, and for monitoring. Representatives of the business sector – to assess and analyze new investment opportunities.

12.2. User satisfaction
In 2023 user satisfaction survey was conducted, the target of the survey was to analyze the assessment of quality of statistical data by users and explore ways to improve user services. The survey report is available on the website of Geostat (in Georgian): https://www.geostat.ge/ka/page/customer-service

12.3. Completeness
The data are comparable to international standards.

13. Accuracy and reliability
13.1. Overall accuracy
Data accuracy is ensured by comparability of survey and calculation methods to international methodology.
13.2. Sampling error
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13.3. Non-sampling error
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14. Timeliness and punctuality
14.1. Timeliness
Data are disseminated in the second half of July after the reference year.
14.2. Punctuality
The data is published according to the date specified in the statistical work program. There has not been any violation of publication dates.

15. Coherence and comparability
15.1. Comparability – geographical
The same methodological approaches are used for all regions of Georgia and they are comparable to international standards.
15.2. Comparability – over time
Data are comparable.
15.3. Coherence – cross domain
Data are coherent.
15.4. Coherence – internal
Data are coherent.

16. Cost and burden
The data are processed based on internal resources, so no additional expenses are incurred.

17. Data revision
17.1. Data revision – policy
Statistical data revision policy is available on the website of Geostat: https://www.geostat.ge/media/59824/Data-Revision-Policy-and-Error_Correction-at-Geostat_Eng.pdf
17.2. Data revision – practice
The statistical data revisions and adjustments are made on a regular basis rely on relevant sources. In addition, a large-scale revision is performed once a year to obtain verified data. Main purpose of this procedures to obtain statistically valid data.

18. Statistical processing
18.1. Source data
The export-import statistics of goods are conducted on the basis of the following information: Database of Customs Declarations (DBCD) from the Revenue Service of the Ministry of Finance of Georgia.
18.2. Frequency of data collection
Annual.
18.3. Data collection
National Statistics Office (NSO) receives DBCD from the Revenue Service of the Ministry of Finance of Georgia on a monthly basis.
18.4. Data validation
The following activities are being carried out by National Statistics Office based on obtained information: Verification of main indicators of the DBCD – commodity codes, prices, weights, dates of customs declarations, country codes for origin/destination, non-existent codes of country and commodity; Exclusion from the database commodities that should not be classified as external merchandise trade according to the internationally approved methodology.
18.5. Data compilation
Calculation formula for each indicator: **Pesticide consumption** = import – export, by active components. **Consumption of pesticides per unit of agricultural area =** total quantity of pesticide consumption / Agricultural land area. **Coefficients for calculating pesticide consumption:** **Insecticides –** 0.31; **Herbicides –** 0.34; **Fungicides and Bactericides –** 0.6; **Plant regulators –** 0.29; **Rodenticides –** 0.45; **Other –** 0.36.
18.6. Adjustment
Not applicable.

19. Comment
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