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Use of administrative data sources, especially the Integrated Administration and Control System (IACS) information to produce agricultural statistics – Pilot studies in the framework of the Administrative data sources – Statistics linkage

POLAND

Final report

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"The action described in this report was implemented with the financial support of the European Union. The sole responsibility for the action lies with its author. The European Commission shall not be responsible for any case of using information included in this report."
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I. General information

The decision on the Central Statistical Office's joining the project was made through analysing the project assumptions presented in the invitation to submit a grant application.

The general objective of the project was to provide suggested solutions (methodological, IT) for the wider application of administrative data sources, especially IACS in agricultural statistics.

The specific objectives of the project included:

1. Preparing new solutions – systems supporting the use of administrative registers in agricultural statistics (an integration platform).
2. Acquiring for Polish official statistics good practices in using administrative registers in agricultural statistics and obtaining knowledge on the development work conducted in other Member States in this area.
3. Assessing the possibility of a wider application of administrative registers as direct data sources in agricultural statistics.
4. Preparing a unique identifier for agricultural holdings and a plan for its implementation.
5. Obtaining knowledge and new experiences in using administrative registers in agricultural statistics and in the field of building tools – systems supporting the use of administrative data as data sources for agricultural statistics.

The work described below was implemented to achieve the set objectives under the project.
II. Description of project work and its results

The work carried out in the period from October 2015 to April 2017 included:

1. Organising project work – drawing up a schedule of activities.

2. Development of methodological documentation describing the experiences of the Central Statistical Office in terms of building tools – systems supporting the use of administrative data in agricultural statistics.


4. Organising and conducting study visits to other countries with a view to gaining knowledge and new experiences in the field of using administrative registers in agricultural statistics.

5. Preparing and testing new methods for creating agricultural statistics exclusively on the basis of administrative data using a single register and through combining data from several administrative registers.

6. Development of the concept of a unique identifier of agricultural holdings and an implementation plan.
1. Organising project work – drawing up a schedule of activities

Based on the activities, as specified in Annex 1 to the grant agreement – ACTION DESCRIPTION, a framework project work schedule has been developed, covering the period from October 2015 to April 2017, along with a detailed schedule comprising tasks to be implemented by the end of September 2016. The tasks, staff and deadlines were specified in both documents. The aforementioned information was used by the Project Manager, among others, to monitor the progress of the tasks.

2. Development of methodological documentation describing the experiences of the Central Statistical Office in tools building – systems supporting the use of administrative data in agricultural statistics

The tasks implemented within the project have involved creating methodological documents including the CSO’s own experiences in tools building – systems assisting in the use of administrative data in agricultural statistics.

The following documents have been prepared:

1. CSO’s experiences in designing and building the processes of obtaining, collecting, compiling and providing data and metadata from administrative systems for the purposes of agricultural statistics – Appendix No. 1 to the report.

2. Methods and IT tools for obtaining and collecting metadata on official registers and information systems of public administration created within the Polish official statistics and used in agricultural statistics – Appendix No. 2 to the report.

3. Description of the implementation of the farm structure survey (SGR) with the use of experiences, solutions and IT tools designed and developed for the purposes of National Agricultural Census 2010 – Appendix No. 3 to the report.

4. Methods and IT tools for obtaining and collecting metadata in the area of coding variables (SMS system) created within the Polish official statistics and used in agricultural statistics – Appendix No. 4 to the report.

5. The experiences of the Central Statistical Office in the field of developing tools – systems supporting the use of administrative data in agricultural statistics – Appendix No. 5 to the report.
The first document – “The CSO’s experiences in designing and building processes for obtaining, collecting, compiling and providing data and metadata from administrative systems for the purposes of agricultural statistics” describes the modernisation of processes for obtaining, collecting, compiling and providing data and metadata from administrative systems for the purposes of agricultural statistics and the current course of processes covering:

- the process of obtaining information on administrative systems,
- the process of obtaining administrative data from central systems,
- the process of obtaining administrative data from distributed systems,
- the process of collecting and compiling data from administrative systems,
- the process of collecting and compiling metadata on administrative systems,
- the process of transforming data from administrative systems into statistical data,
- the process of providing data and metadata from administrative systems.

Particular attention should be given to issues listed below:

1. The processes of obtaining, collecting, compiling and providing data and metadata from administrative systems increase the effectiveness of tasks and the quality of output data from surveys in agricultural statistics.

2. The processes implemented in agricultural statistics lead to the task specialisation of statistical units through the creation of specialised units – groups focusing on and developing competences, knowledge and experience in a given field. Specialised units are assisted by the production and IT environment supporting the standardisation and optimisation of work processes.

3. The processes enable statistics employees to access the knowledge base/repository – the key tool to:

   - support the process of designing and modernising surveys by collecting and disseminating information on administrative systems, methods, solutions, rules and data, which can be reused by various units of official statistics for a variety of surveys,
   - support the management of intellectual capital – knowledge and good practices.

4. The processes facilitate increased effectiveness and efficiency of activities through:
- reorganising process control – metainformation through IT solutions controls and monitors processes. Through the application of applicable rules, the processes are automated, and the monitoring of the operation and effectiveness of processes is carried out,

- creating harmonised procedures and tools,

- optimising the allocation of human resources – reducing the costs of data processing,

- shortening the data processing time,

- supporting the development of agricultural statistics through an approach focused on effectiveness and innovation,

- reducing the burden on the respondents by creating conditions for an increased use of administrative data in agricultural statistics surveys.

The document constitutes Appendix No. 1 to the Report.

The second document – “Methods and IT tools for obtaining and collecting metadata on official registers and information systems of public administration created within the Polish official statistics and used in agricultural statistics”, describes the current IT tools and solutions – External Metainformation Subsystem (PMZ) and new solutions and IT tools of the Repository of Information Standards (RSI).

The PMZ description included:

- the organisation and technology of collecting information,

- PMZ functionalities,

- description object in PMZ,

- the units preparing the description – register owners,

- register descriptions – information structure,

- sharing of the collected information.

In 2014 the CSO, under another modernisation activity of the process of obtaining information on official registers and public administration information systems, a new IT tool was designed, along with a new methodology – the Repository of Information Standards (RSI). Implementing the aforementioned solutions in the Polish statistics practice began in 2016. The scope of information previously collected by the CSO was extended with, among others, reference object identifiers and information characteristics applied in the register, including identification characteristics, definitions
and classifications. The basic assumption of data description and revision by register holders was maintained.

As part of the description of RSI the key issues subject to modernisation, including the description structure of the administrative system, have been described.

The description of the administrative system contains the following elements:

1) the information system identifier
2) the full name of the system
3) the abbreviated name of the system
4) the system owner
5) the method of running the system
6) the system scope
7) the purpose of the system
8) the form of running the system
9) the system implementation progress
10) the changes planned to be introduced to the system
11) the person describing the system
12) the person giving information
13) the legal basis
14) the data sources and update frequency
15) the date and forms of data dissemination
16) the object description in the information system
17) the classifications and lists used in the system

The object description in the administration system consists of the following elements:

1) the identifier of the object in the information system
2) the type of the object
3) the name of the object
4) the description of the object  
5) the standard identifiers of the object  
6) the information characteristics describing the object

The description of the information characteristic consists of the following elements:

1) the information characteristic identifier  
2) the name of the information characteristic  
3) the information whether the characteristic appears in the central system  
4) the definition of the information characteristic  
5) the applicable remarks  
6) the normative source of the information characteristic definition  
7) other sources of the information characteristic definition  
8) the relation of the information characteristic to the classification

The collected descriptions will supply data for and update the knowledge base of official registers and information systems of public administration, whose main tasks include supporting the provision of systems' interoperability through:

1) creating conditions to enhance the quality of domain information systems, running by different bodies of public administration, including increasing methodological compliance  
2) creating conditions to enhance the effectiveness of domain information systems in the framework of particular sections and the state's information system as a whole  
3) obtaining the interaction of information systems and their interoperability  
4) increasing financial effectiveness of projects financed from public funds, including those in the framework of the EU operational programmes  
5) reducing financial expenses connected with the creation, maintenance and development of administrative registers and information systems of public administration  
6) reducing administrative burdens of persons and entities.
As a result of the above-mentioned work, the selection of reference systems will be facilitated, i.e. those which primarily collect information, constitute information standards and provide updates to other systems of public administration. The discussed document forms Appendix No. 2 to the Report.

The third document – “A description of the implementation of the Farm Structure Survey (SGR) using the experiences, solutions and IT tools designed and built for the purposes of National Agricultural Census 2010” describes:

- the experiences, solutions and IT tools designed and built for the purposes of the National Agricultural Census 2010,
- the implementation of the Farm Structure Survey in 2013 using new methodological and IT solutions – System of Obtaining, Processing and Integration of Statistical Data – SPDS.

The processing of the Farm Structure Survey (SGR) in 2013 was carried out in the SPDS data processing system. The data source for the processing of the survey was the data collection system using the CAII\(^1\), CATI\(^2\), CAPI\(^3\) channels and the data on organic holdings collected in GIJHARS (Main Inspectorate of Agricultural and Food Quality Inspection). The control, output and publication tables were calculated within the Analytical Microdata Base ABM and the data fed the Eurofarm. The SGR form was integrated with the AK-R survey (survey on the economic situation of agricultural holdings) and R-KSRA (survey of the cattle, sheep and poultry stocks). The data extracted from the data collection system were subject to validation and adjustment within the ABM system. The discussed document constituted Appendix No. 3 to the Report.

The fourth document – “Methods and IT tools for obtaining and collecting metadata in the area of coding variables (SMS system) created within the Polish official statistics and used in agricultural statistics” describes the rules of coding variables and IT tools. In the target model it is desirable for the process of coding terms and attributes of observation to be conducted on the basis of the centrally managed dictionary of coherent terms, definitions and catalogues of code lists created on the basis of the subject language. In the system of coding variables the author of the survey should define the subjective scope and attributes of observations concerning a given indicator(s) (objective scope). The fundamental issue in the unambiguous codification of variables is

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\(^1\) Computer-Assisted Web Interview – computer assisted interview via a website.
\(^2\) Computer Assisted Telephone Interviewing – computer assisted interview conducted on the phone.
\(^3\) Computer Assisted Personal Interviewing – computer-assisted survey.
a simultaneous analysis conducted in the area of the objective and subjective scope. Work connected with codification should be performed in a strong correlation and with taking into consideration partial results of particular stages of work within both areas.

In the field of subjective scope the work carried out should focus on:

- the choice of elements characterising the legal and organisational situation of entities and values which they adopt in order to create groups of homogeneous entities,
- determining groups of homogeneous entities – the typology of entities.

In the field of the objective scope the work should concern the following areas:

- identification and classification of identifiable information objects,
- determining the subjective scope (the term) of the economic indicator as an essential part of an information object,
- classification of the identifiable term within the framework of the catalogue of terms,
- identification of measurement attributes for a given objective scope,
- classification of identifiable measurement attributes within the catalogues of code lists.

In the light of the foregoing, the target system should support autocodification of variables on the basis of data collected in the dictionary of notions and catalogues of code lists. Furthermore, the system of coding variables should ensure that equivalent requirements concerning the metadata of the information system are met, i.e. it should:

- have a structure,
- be legible for a human,
- be legible for a machine,
- be language-independent,
- be grammar-independent,
- be generated automatically.

The expected results of the full implementation of coding variables under the SMS should be the following:

- unambiguous identification of each variable included in official statistics,
- easy access to metadata for a given variable,
- data redundancy management – automation of searching for repetitions of variables,
- finding similar variables - through "cutting of" end identifiers and analysis of variables grouped in this manner,
storing information in thematically oriented classes of information objects,

- separation of the process of information analysis from the source of data collection, e.g. the statistical form, administrative data source,

- supporting the data analysis process (including the multi-dimensional analysis – on the basis of code lists, classifications, TERYT linked with the variable),

- supporting the process of secondary data use,

- automation of the process of coding indicators/variables,

- automation of the process of data aggregation,

- ease of linking with output variables - through universal variables,

- enabling the monitoring of the course of statistical production.

The said document forms Appendix No. 4 to the Report.

In the fifth document “The experiences of the Central Statistical Office in the field of developing tools – systems supporting the use of administrative data in agricultural statistic” described systems supporting the use of administrative registers in agricultural statistics:

1. The Metainformation Subsystem (PM),

2. The Operational Microdata Base (OBM),

3. The Analytical Microdata Base (ABM)

The Metainformation Subsystem (PM) is a repository of methodological metainformation and operational metainformation, uploaded and collected at individual stages of handling datasets, from their acquisition to the production of official statistics. The feeding of metainformation to the Metainformation Subsystem is carried out taking into account the adopted principles and pertains to the data from various sources i.e. administrative registers and statistical questionnaires acquired with the use of various methods / via various channels (CAII, CATI, CAPI). In terms of architecture, the Metainformation Subsystem constitutes a separate system operating within the environment of the Operational Microdata Base (OBM).

The Metainformation Subsystem (PM) has the following functionalities:

- registering, collecting, searching, browsing, modifying and deleting descriptions of administrative data sources and source administrative datasets transferred to the statistical
office in an electronic format, on the basis of the Statistical Surveys Programme of Official Statistics,

- registering, storing, searching, browsing, modifying and deleting data-processing rules: the verification, correction, anonymisation, integration of data and quality indicators.
- generating reports on the process flow (abandoning retrospective control lists), on the values of quality indicators, the description of administrative data sources and the description of datasets,
- operating and monitoring processes (programming the completion of processes, collecting information on the process flow, including the results of completed processes),
- making the system available to owners of public administration information systems, in order to directly register and update the descriptions of administrative data sources (PM external module),

cooperating with other IT environments in the CSO (including the OBM and the ABM).

The Operational Microdata Base (OBM) is an IT system supporting the acquisition, collection and handling of individual data from the public administration information systems acquired for the purpose of statistical surveys.

The Operational Microdata Base system facilitates the compliance with security requirements set forth in legal regulations, most of all in the scope of personal data protection and statistical confidentiality. The adopted organisational and technological solutions support the standardisation and optimisation of work processes.

In the OBM system, the data from administrative registers is converted into statistical data and processed in terms of calculating additional variables, extracting subsets and merging datasets, thus providing high-quality data to be used in the subsequent stages of producing output data.

The OBM system supports the processes of designing and modernising surveys by collecting and disseminating information on the sources and datasets, as well as the methods/rules of processing which may be repeatedly used by various units.

The Operational Microdata Base facilitates the implementation of the following tasks:

- collecting data from administrative registers,
- standardising, verifying and correcting data from administrative registers,
synchronising data gained from various sources: from administrative registers and surveys, gained via various channels (CAII, CATI, CAPI) and integrating them,

- calculating values for variables on the basis of collected information,

- anonymising/depersonalising collected data,

- exporting to the analytical database (ABM) and other data processing systems calculated according to the adopted rules,

- generating reports, including quality reports.

The Analytical Microdata Base (ABM) constitutes a platform for analysing and reporting, which enables statistical data processing. The system architecture guarantees full flexibility of the choice of the source data, and the basic data input source for ABM is the OBM system. The data imported from the OBM are depersonalised data. The analyses and reports are performed on the basis of previously prepared aggregates and multi-dimensional objects. The results of the analyses, in the form of a variety of documents, reports and lists, are made available to both internal and external users. The process of the statistical data analysis in the ABM system is carried out in accordance with the GSBPM generic model (Generic Statistical Business Process Model). The document constituted Appendix No. 5 to the Report.

3. Development of methodological documents regarding new solutions – concept of a system supporting the use of administrative registers in agricultural statistics (integration platform)

In activities connected with developing the concept of a system supporting the use of administrative registers in agricultural statistics the issue of building an integration platform is of key importance. The project involved cooperation with the Agency for Restructuring and Modernisation of Agriculture (ARiMR), which included, among others:

- the experiences of official statistics in the integration of data from various administrative registers,

- the experiences of the ARiMR in terms of combining the register of producers with other official registers – the design and implementation of the application platform,
coding input variables in official statistics in the context of integrating administrative registers

solutions regarding the CSO’s access to data gathered in the databases of the ARIMR.

The subjects mentioned above were the subject of project, including the seminar held at the CSO with the participation of representatives of the ARIMR. The work led to in-depth analyses of the use of the existing functionalities of the Application Platform (PA) to improve the CSO’s access to the ARIMR databases and the possibility of automated ARIMR data transfer for the CSO’s statistical purposes, and also to feed the Register of Agricultural Holdings (RGR) with data from source systems. As a result of the work, the CSO gained knowledge on the use of the PA, the range of the collected information and limitations in terms of individual, as opposed to collective, data dissemination under the current PA.

The Application Platform is one of the elements of the IT System of the Agency for Restructuring and Modernisation of Agriculture. The Application Platform enables external users to use the following modules: Data Provision, eApplication, the Animal Identification and Registration System (IRZ), IRZ Statuses, Reports, Limits and Administration. Within the Data Provision module, the authorised users not belonging to the ARIMR network can view and export to a file information on producers, their business, payments, results of on-site inspections from the subsystems of the Integrated Administration and Control System (IACS), IACSplus and information on animals from the IRZ subsystem. The use of the above-mentioned functionalities may contribute to an increased effectiveness of the processes implemented under official statistics. Therefore, under the cooperation with the Agency an action plan was developed for the CSO to use the Application Platform. Currently official statistics is acquiring large quantities of data from the ARIMR resources. The data is disseminated on the basis of the Regulation of the Council of Ministers on the programme of statistical surveys of official statistics (Pbssp) for a given year. Due to the very large volumes of data that the ARIMR transfers to the CSO based on the aforementioned regulations, PA in the current form is not going to replace the current solution applied for data exchange. Having an abroad access to microdata through PA can be used by the CSO in agricultural statistics for, among others:

supporting the implementation of statistical surveys covering a smaller population (among others, obtaining current information on producers and their business, analysis of changes),
ongoing updating of selected information transferred by the ARIMR in large batches, e.g. in terms of preparing a purposive statistical sample,
- verifying information obtained by the CSO from other sources than the ARIMR database,
- determining the detailed contact data of entities during the surveys, e.g. the agricultural census.

The concepts of solutions enabling a broad access of official statistics to the ARIMR information resources were the focus of further project work. In the context of the work on developing the concept of a system supporting the use of administrative data in agricultural statistics (integration platform), an analysis of the possibility of adjusting the ARIMR systems (including PA) to achieve compatibility with other systems in terms of mass data flow for the purposes of official statistics in the field of agriculture was performed. The concept of a system supporting the use of administrative registers in agricultural statistics (Integration Platform) is appended to this Report as Appendix No. 6.

4. Organising and conducting study visits to other countries with a view to obtaining knowledge and new experiences in the field of using administrative registers in agricultural statistics

Under the project work, three study visits to national statistical institutes (NSI) responsible for compiling agricultural statistics were carried out. Taking into account the project objectives and the degree of using administrative registers in agricultural statistics by particular Member States, the study visits were performed in statistical offices of Austria, Sweden and France.

The first was the study visit at the NSI in Austria, held on 21-22 June 2016. The representatives of the NSI in Austria presented the issues of using administrative data in agricultural statistics, especially in terms of the IACS. The Austrian register of agricultural holdings was discussed in terms of using administrative sources for data update. The structure of the Austrian register of agricultural holdings makes it possible to link in with administrative registers and to conduct ongoing updating of the system using administrative data. Currently approx. 98% of data used for updating the register are administrative data. Particular characteristics of the households register are updated using data from the respective administrative registers.

During the study visit at the NSI in Austria, the following issues were considered: the use of administrative data in crop surveys and farm structure surveys (SGR). Major problems related to
the use of administrative data in agricultural statistics were discussed, together with the issue of assessing the quality of data from administrative sources in terms of their use in agricultural statistics.

The second study visit took place on 5-6 October 2016 in the regional branch of the Statistics and Projections Services in Toulouse, France. The objective of the visit was to become familiar with the experiences of the French statistics on the use of administrative registers in agricultural statistics, including linking data from the IACS system with other administrative registers and statistical data. During the meeting the organisational aspects of the French agricultural statistics were presented, together with the major registers serving as sources for agricultural statistics – PAC, SIRUS and SIRENE. The main source of administrative data for agricultural statistics is the PAC system (the French IACS), which, unlike in the Polish IACS, collects information on the area of all types of crops in a given agricultural holding. The visit provided an opportunity to gain knowledge on good practices applied in the French statistics. Information on the use of data from the PAC system and the quality of statistics compiled with the use of administrative data were of particular value.

On 21-25 November 2016 the CSO representatives conducted a study visit at the Statistics Department of the Swedish Board of Agriculture (SBA) in Sweden. The visit’s objective was to become familiar with the experience of the Swedish statistics on the use of administrative registers in agricultural statistics, including linking IACS data with other administrative registers and statistical data. During the visit the major registers serving as data sources for agricultural statistics were discussed: the slaughter register (SR), the organic farms register (OR), the cattle register and IACS. The discussions also included issues of integrating data from multiple sources and the role of identifiers such as SSNid (social security number), concerning owners and individuals transferring information from registers and PPNid (production place number) referring to the location of production. Among the issues covered was also the identification of agricultural holdings in administrative registers. During the visit the Polish delegates became familiar with good practices used by the Swedish statistics in their statistical work. Particularly valuable information included the use of administrative data in agricultural statistics surveys. Data from multiple administrative registers are gathered in a data warehouse after previous transformation to adjust to the requirements of official statistics. Statisticians having access to the data warehouse carry out further analyses. The Swedish statistics has direct access to some
administrative register data, which it can apply to the data warehouse, without a possibility of editing and correcting the source data.

The study visits expanded the participants’ knowledge on using administrative data in agricultural statistics and were used for the implementation of project tasks. The acquired knowledge was useful in particular in developing the concept of a unique identifier of agricultural holdings, preparing new methods of compiling agricultural statistics based solely on administrative data and in developing the concept of a system supporting the use of administrative registers in agricultural statistics.

The following conclusions from the study visits were formulated for the Polish agricultural statistics.

In order to provide benefits for the Polish agricultural statistics arising from the extensive use of administrative registers, it is necessary to:

- establish cooperation between all involved institutions: the CSO and administrative system owners,
- introduce changes in national legislation,
- change the method of recording data in the IACS – collecting administrative data with the inclusion of the requirements of official statistics; applications for payments should include more detailed information than crop groups,
- reconcile definitions used in official statistics and by administrative system owners,
- provide the possibility of identifying individual agricultural holdings based on identifiers within the systems,
- provide official statistics direct and continuous access to information stored in administrative systems.

5. Developing and testing new methods of compiling agricultural statistics solely on the basis of administrative data using one register and through linking data from several administrative registers

The main objective of new methodological solutions for the creation of agricultural statistics from administrative data is to increase the use of data from the IACS and other administrative systems which contain data on agricultural holdings. In order to develop new methodological
solutions enabling the compilation of high-quality agricultural statistics, a comparative analysis was carried out of data from the IACS and the Animal Identification and Registration System (IRZ) with data from SGR 2016, the Head Office of Geodesy and Cartography (GUGiK) – geodetic data, data obtained from gmina surveyors and the CSO reports (R-09U).

The results of the analyses made it possible to develop new method of compiling agricultural statistics with the use of IACS and IRZ, and the tests performed demonstrated that the methods can be used in practice for the creation of agricultural statistics, which implies the possibility of a broader use of administrative data on agricultural holdings in statistics.

New methods of compiling agricultural statistics solely on the basis of administrative data using one register and through linking data from several administrative registers are presented in Appendix No. 7 to the Report.

6. Developing the concept of a Unique Agricultural Holding Identifier and the implementation plan

Under the project work the concept of a unique agricultural holding identifier was developed. In the concept it has been assumed that the creation of the Register of Agricultural Holdings (RGR) would allow the straightforward identification of the register entities, i.e. agricultural holdings. Agricultural holdings will be assigned a unique identifier, which will feed other administrative registers, the data of which have served for the development and updating of the agricultural holdings register.

In Poland there is no official register of agricultural holdings. When building an official agricultural holdings register on the basis of administrative data, it is necessary to ensure a straightforward identification of an agricultural holding in the register and connect it to other administrative registers with the use of identifiers. The agricultural holding identifier given in the register of agricultural holdings must account for the principles of succession of the related identification numbers. It is a basic condition to be met, assuming that the agricultural holdings register would be developed and updated on the basis of administrative registers on an ongoing basis.

During the progression of work related to the Agricultural Holdings Register, it became necessary to develop rules concerning the development and operation of the agricultural holdings identifier. The concept developed within the project covers the identification rules of agricultural
holdings, issues related to building an agricultural holding identifier and the responsibilities of the authority maintaining the register, agricultural holding users and administrative register owners. The document constitutes Appendix No. 8 to the Report.

III. Expected benefits of the adopted solutions

The following elements developed within the project:

1) the concept of a system supporting the use of administrative registers in agricultural statistics (integration platform),

2) new methods of compiling agricultural statistics solely on the basis of administrative data using one register and through linking data from several administrative registers,

3) the concept of a Unique Agricultural Holding Identifier,

will be subject to further work with a perspective of implementing them in the agricultural statistics practice. These elements will enable the modernisation and development of agricultural statistics through a broader use of administrative data and limiting direct collection of data from respondents.

Building the Integration Platform and the Agricultural Holding Identifier will positively influence the quality of official statistics and other administrative systems, including those used for survey purposes, in particular through:

- creating systemic solutions improving the availability and quality of data in administrative registers and increasing the possibility of their repeated use,
- automation of access to data from other administrative registers,
- increasing the coherence and the possibility of integrating administrative registers.

The new methods of compiling agricultural statistics will bring tangible benefits in the form of lowering survey implementation costs for the producers and respondents.

IV. Sustainability of the project work results

The experience and knowledge acquired during the project will be used for designing new surveys and modernising the existing ones. The work on obtaining broader access to data from administrative systems will also be continued.
During the work implemented by the CSO in cooperation with the Agency for Restructuring and Modernisation of Agriculture, the range of tasks to be implemented after the completion of the project was agreed upon to contribute to a broader use of data from administrative registers in statistics. The issues covered by the cooperation include in particular:

- adjusting the functionality of the ARIMR Application Platform (PA) to the needs of official statistics, including the ease of using administrative data,
- improving the usability of the ARIMR systems,
- removing obstacles to accessing large volumes of data collected in PA,
- designing and building the Integration Platform,
- identification of agricultural holdings in administrative registers,
- preparing drafts of new legal regulations and amending the currently binding legislation referring to the Integration Platform and agricultural holding identification,
- using the data collected in PA in the preparatory work for the Agricultural Census (PSR 2020).

The CSO is planning to organise a seminar for entities interested in agricultural statistics and the integration of registers from the field in order to present the developed concepts and new solutions. The solutions developed within the project can be regarded as a sustainable result of the work.

The deeper cooperation between statisticians from the ARIMR within the project contributed to a better understanding of the needs and problems of official statistics, which will result in a broader use of new data sources and reduced respondent burden.

The knowledge and experience gained by the CSO representatives during the study visits will be used for the modernisation of currently implemented and newly developed surveys and in the preparatory work for PSR 2020.

V. Problems encountered in the course of project implementation

The tasks implemented under the project have been conducted in accordance with the adopted work schedule.

The main supervision and monitoring of work connected with project implementation has been conducted by the project manager whose professional experience guarantees the quality and timely performance of the work on the project.
The cooperating entities have conducted some of the activities independently, sending ongoing reports to the project manager after proceeding to perform the tasks and notifying the project manager of finishing the work along with the outputs.

All work has been subject to monitoring on an ongoing basis. In order to discuss the previous work outputs and adopt solutions eliminating potential threats to the implementation of the action, regular meetings with entities implementing the project were held at every stage.

No unforeseen problems have been encountered in the course of the project implementation.

VI. Appendices

Appendix No. 1 – “CSO's experience in designing and building the processes of obtaining, collecting, compiling and providing data and metadata from administrative systems for the purposes of agricultural statistics”

Appendix No. 2 – “Methods and IT tools for obtaining and collecting metadata on official registers and information systems of public administration created within the Polish official statistics and used in agricultural statistics”

Appendix No. 3 – “Description of the implementation of the farm structure survey (SGR) with the use of experiences, solutions and IT tools designed and developed for the purposes of National Agricultural Census 2010”

Appendix No. 4 – “Methods and IT tools for obtaining and collecting metadata in the area of coding variables (SMS system) created within the Polish official statistics and used in agricultural statistics”

Appendix No. 5 – “The experiences of the Central Statistical Office in the field of developing tools – systems supporting the use of administrative data in agricultural statistics”

Appendix No. 6 – “The concept of a system supporting the use of administrative register in agricultural statistics (Integration Platform)”

Appendix No. 7 – “New methods of compiling agricultural statistics solely on the basis of administrative data using one register and through linking data from several administrative registers”

Appendix No. 8 – “The concept of the Unique Agricultural Holding Identifier (UIGR)”