TWINNING CONTRACT

Support to the Statistics

Kosovo

MISSION REPORT

on

Activity 2.6.1: Continued support to implementation of Action Plan with a focus on SUT

Component no 2 National Accounts

Mission carried out by
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IPA 2012

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Table of contents

Executive Summary 4
1. General comments. 5
2. Assessment and results 6
2.1 The SUT Framework. 6
2.2 Choice of classifications. 6
2.2.1 Required data for industries and final uses. 6
2.2.2 Classification of products. 7
2.2.3 Industry classification for production, intermediate consumption, and components of gross value added. 7
2.2.4 Classifications of final consumption. 7
2.3 Data sources. Correspondence between classifications in source data and SUTs. 8
2.3.2 Foreign trade in goods. 8
2.3.3 Foreign trade in services. 8
2.3.4 Agriculture. 8
2.3.5 Mining, manufacturing, electricity, gas and heating. 8
2.3.6 Service industries covered by SBS and/or VAT-statistics. 9
2.3.7 Non-profit institutions serving households (NPISHs). 9
2.3.8 General government. 10
2.3.9 Services not covered by SBS or VAT-statistics. 10
2.3.10 Household final consumption. 10
2.3.11 Exhaustiveness, non-observed economy. 10
3. Conclusions and recommendations 11
Terms of Reference: 11

List of Abbreviations

ESA 95	European System of Accounts 95
ESA 2010	European System of Accounts 2010
EU	European Union
GDP	Gross Domestic Product
HBS	Household Budget Survey
IMF	International Monetary Fund
LFS	Labour Force Survey
KAS	Kosovo Agency for Statistics
NA	National Accounts
NACE rev.1	Nomenclature statistique des activités économiques dans la Communauté européenne, revision 1
NACE rev.2	Nomenclature statistique des activités économiques dans la Communauté européenne, revision 2
NAD	National Accounts Department
R&D	Research and development
SBS	Structural Business Survey
SUTs	Supply and Use Tables
ToR	Terms of Reference

Executive Summary

The purpose of this mission was to prepare source data for entry into a common framework that will contain SUTs for 2013. As a few important statistical sources were still unavailable, it was planned to discuss an adjustment of the project's time schedule.

An early version of the framework for supply and use tables have now been drawn up in the form of an Excel workbook with worksheets for the price levels from basic to purchasers' prices. It required a decision on the numbers of industries, consumption groups and classifications of final uses that shall appear as columns. The present version follows the two digit versions of NACE rev.2, and the two digit version of COICOP.

A first version of a possible product classification to be used in the SUTs was drawn up in the mission in March 2015. It was mostly based on the rather detailed VAT-statistics for 2013. Agricultural output from the existing national accounts was then – as an experiment - coded by the proposed product classification and brought on the standardized format that will be used for data-entry by Excel-macros.

When the Excel framework that can contain the SUTs follows specific rules, the interior of the system can be accessed by a system of macros developed within Statistics Denmark. The macros are used for data entry, extraction and balancing of product-balances. At this moment the Excel sheets are still empty, but they will be populated with data as the sources are transformed into standardized format and coding.

When compilation of the SUTs eventually reaches its final stage, macros will perform most of the adjustments that are needed to balance supply and use of trade- and transport margins, taxes on products and VAT.

During the present mission the people who are responsible for the various data sources started coding their respective data by the present version of the product-classification. Experience from this exercise will probably still show a need for reduction of the number of products, given the limitations in the information. Coding of the available data-sources is expected to be completed before the next mission

The quality of the SUTs will depend on the availability of data for 2013. Some important data, SBS- and PRODCOM-statistics cannot be expected to be available until mid-September. The proposed time schedule will need to be adjusted to take this delay into account.

As already mentioned in the report from the mission in March, the success of the project will depend on the availability of human resources in the KAS as work will need to be carried out between the missions. At this moment people are working on the coding of data within their areas of responsibility. The SBS-statistics for 2012 is being coded in Denmark, because of the complications that arise from the need to manually transform products to SUT-products as well as industries to new SUT-industries based on old NACE rev.1.1 codes.

It can be expected that data from these sources are ready to be entered into the framework early in the next mission.

1. General comments.

In the mission in March 2015 it was decided to start work on a set of Supply and Use tables for Kosovo for the year 2013. The plan for the present mission was to code as much as possible of the available source data by classifications of products, transactions, industries and consumption groups that have been chosen for an initial version of the SUT-matrices.

For this purpose correspondence tables between the codes used in source data and the common codes used by the SUTs are needed. Experience gathered through this exercise will probably lead to some revisions to the initial proposed classifications. It seemed, however, that in most cases it is possible to transform the data into the proposed classifications.

Source data needed for the compilation are now available for a number of areas, among which are foreign trade in goods, agricultural statistics, value added tax statistics, the household budget survey and government finance data for 2013. The persons that are responsible for each of these areas are now working on the translation of the coding into SUT-product codes. A similar translation of industry and consumption coding into the transaction types and industry and consumption groups of the SUT framework can easily be done as the source data contains the necessary NACE, COICOP and COFOG classifications. This work is expected to be finished before the next mission.

Some important data sources are still unavailable. The SBS-statistics for 2013 exists, but it is still incomplete. To fill the gaps it is possible to use structures from SBS-statistics for 2012 and this source is now being coded with the classifications of the SUTs for 2013. The product structure of industry outputs and –inputs should as far as possible be based on the new PRODCOM statistics for 2013 that is now being processed and is expected to be ready mid-September.

It has been considered whether the SBS-statistics for 2014 could be used to supplement the information on structure within industries that are badly covered by the SBS-statistics for 2013. It is, however, uncertain if it will be ready in time and it now seems most realistic to use the 2012 SBS for this purpose.

A proposal for a time schedule for the SUT-project was included in the mission report from the mission in March. It was discussed with the KAS staff at the end of this mission. As it is now believed that PRODCOM statistics for 2013 and a final version of data from SBS-statistics for the year 2013 can be expected to be ready for use mid-September it seems unrealistic to create an initial version of the supply table before early in October. The time schedule for coming missions will need to take this into account.

The consultant would like to express his thanks to all officials and individuals met for the kind support and valuable information which we received during the stay in Kosovo, and which highly facilitated the work of the consultant.

This views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of EU, KAS or Statistics Denmark and our implementation partners(NI-CO / Statistics Finland / Istat / Statistics Lithuania).

2. Assessment and results

2.1 The SUT Framework.

An Empty SUT-framework of the type that has been developed in Statistics Denmark has been created. Macros for entry and extraction of data from the system as well as macros for balancing of supply and use and adjustment to targets for inputs, final consumption and other final uses are available as a separate workbook. Such macros have been developed in Statistics Denmark and have earlier been used in compilation of SUTs in other countries.

The SUT-system requires definition of exhaustive classifications for products, industries, consumption groups and subgroups of capital formation. In the present version of the SUT-framework they are defined by their relations to the official international classifications CPA, NACE, COICOP and COFOG. The choice of classifications determines the dimensions of the Excel tables.

An exhaustive classification of products is now drawn up. Each product is defined as an aggregate of products represented by specific CPA-codes. The level of aggregation varies between product categories reflecting differences in their importance in a SUT for Kosovo and to some extent also the availability of information.

The full use of the Excel framework requires that source data are brought on a standardised format using well defined classifications for products, transaction types, industries and final uses. Inputs from different statistical sources will typically be available classified by different coding systems. It will be necessary to establish correspondence tables between each of these classifications and the classifications used in the SUTs.

2.2 Choice of classifications.

2.2.1 Required data for industries and final uses.

The SUTs will as a minimum require information for each industry on:

- The values for Total output
- Intermediate consumption
- Compensation of employees

The values for these industry-totals will be entered into the Excel framework as “targets” for the corresponding column-totals. Similarly an initial set of “targets” for the column-totals for final uses must be calculated from source data.

The actual values of the column totals may end up being somewhat different from the initially estimated “target” values. Column-targets can be estimated with more or less certainty. Industry targets that are the result of calculations based on reliable accounts statistics can usually be considered reliable compared to e.g. targets for consumption groups that are calculated using household budget survey-data that are sample data grossed up to cover the whole economy. As a general rule the balancing shall ensure that actual column-totals meet the targets for those uses that are considered most reliable while they are allowed to differ from the less reliable targets.

2.2.2 Classification of products.

The initial choice of product-classification is the result of a coding exercise based on the detailed VAT-statistics for 2013. The turnover by industries can here be found classified by 4-digit NACE industries. As a starting point it is assumed that for most industries the small units produce only the products that are characteristic output of the industry. As there is a close correspondence between the CPA-classification of products and the NACE classification of industries at this level, a sensible initial distribution of outputs by products can be established for two digit NACE-industries as long as products are defined to contain CPA-codes on a 4-digit or lower level. In this way some 370 products could be distinguished. This classification is probably too detailed and some products will need to be merged after comparison with the classifications used in source data on input structures, household final consumption and consumption of general government.

It is, however, obvious that the turnover values from VAT-statistics shall as far as possible be replaced by information from SBS-statistics, especially for bigger enterprises.

2.2.3 Industry classification for production, intermediate consumption, and components of gross value added.

The choice of classification used for output- and input-columns can probably be limited to a choice between 64- or 86 industries or a compromise between the two. While 86 industries correspond to 2-digit NACE rev.2, the 64 industry classification is the one required by the EU Transmission Programme and for international comparisons in general. For I-O purposes one may prefer the more detailed classification, but the less detailed industries may be more feasible where source data is scarce and uncertain.

2.2.4 Classifications of final consumption.

Detailed initial estimates of the use of products for household final consumption can be obtained from the household budget survey for 2013. The survey can be used in a grossed-up version that covers consumption by the population as a whole.

The survey is classified by 5-digit COICOP that should be sufficiently detailed to be translated into SUT-products. At this moment the framework shows household consumption as 2-digit COICOP -groups (plus 2 columns for residents' consumption abroad and non-residents' consumption on the domestic territory).

Final consumption of NPISHs is shown as a single column. It may be possible to subdivide it by COICOP-groups, but its distribution by products can show similar information. The same applies to individual consumption of general government. A subdivision of government consumption into columns for 2-digit COFOG groups (=divisions). is chosen at the moment. Individual consumption might be shown by COICOP-groups.

Gross fixed Capital formation should be subdivided by type of fixed asset as detailed as required by the ESA 2010 transmission programme. Changes in inventories can be shown columns for materials, finished products and work in progress and goods for trade.

2.3 Data sources. Correspondence between classifications in source data and SUTs.

2.3.2 Foreign trade in goods.

The statistics for 2013 is available coded by detailed HS. In principle much of the translation into CPA can be done automatically by lookup in a correspondence table. Using the connection between CPA and SUT-products a correspondence table between HS and SUT-products was created. However, the use of this correspondence table still left a number of non-matching products that must be coded manually. At the end of the mission this coding was in progress and it is expected to be finished before the start of the next mission.

2.3.3 Foreign trade in services.

At this moment only two numbers are available, Total exports and total imports. It is not obvious how the CIF-FOB transition is implemented. Further information is needed. The KaS will contact the Central Bank to get as much detailed information as possible on the calculations behind the figures. A meeting with central bank employees may be useful.

We will need to split up import and export figures for services into the service-products we have defined for the SUT -environment - if necessary using assumptions.

2.3.4 Agriculture.

Production in agriculture can be found in "Economic Accounts for Agriculture 2013" that contains the specification of output by various agricultural products. It also contains information on important inputs in agriculture. The coding of output started already in March, but is not completely finished. Danish experts will look at the input coding before the next mission.

2.3.5 Mining, manufacturing, electricity, gas and heating.

VAT statistics for 2013 is available on the 4-digit level of NACE. It contains information on turnover and purchases, the latter with a subdivision between purchases for intermediate consumption and purchases for investment purposes. The statistics seem to have a good coverage, but it is hardly sufficient for the purpose of describing the structures of output by products, as it contains no information on sales of used capital equipment or secondary production. It is important that VAT-statistics is supplemented by the information collected by SBS-statistics.

SBS-statistics will provide information on secondary production within the bigger enterprises. When secondary production takes the form of trade, the turnover value must be reduced by the purchase of goods for resale, and the difference between sale and purchase of such goods shall be coded as output of trade services that are mostly distributed as trade margins. Hence the VAT statistics will exaggerate the value of output in industries with trade-activities.

It can probably be assumed that in many industries small units that are not covered by SBS produce the single SUT-product that is characteristic output of their 4-digit NACE industries. Bigger enterprises are said to be few. For such enterprises the size of secondary activities may be found in the SBS and the breakdown of total output can probably be improved by the use of PRODCOM statistics when it becomes available. As a last resort it may be possible to

collect supplementary information from some big enterprises, and this information does not necessarily need to be from 2013.

Inputs in industries covered by the SBS can probably use information in this statistics, even if its coverage is somewhat unsatisfactory. SBS-data from 2012 can be used to describe input structures where SBS-data for 2013 is missing.

It can generally be assumed that data on the input structures of industries is more or less incomplete, but that it is possible to fill the gaps in knowledge using supplementary information on inputs from earlier or later years, from other countries, and in many cases by pure common sense. In the end many inputs will be determined by the available supply for domestic uses.

The PRODCOM statistics is expected to give us a better description of the product-structure of outputs and inputs in manufacturing industries when it becomes available.

For specific products it is possible to determine their uses as intermediate consumption, household final consumption or capital formation from their characteristics. This "commodity flow" method is, however uncertain where the same products are typically used for more than one of these uses. Hence it is preferable that initial product structures are constructed for all columns at the uses side, but during the balancing process one will usually prefer to adjust the values that are most uncertain.

At this moment VAT-statistics is available for 2013 in a version containing the variables that will be used for the SUTs.

SBS-statistics for 2012 is now available in a spreadsheet with all its variables. It is, however classified by the old NACE rev 1.1 industry classification and its information on products does not provide a specification that can be directly translated into the defined SUT-products. The Danish expert is now working on the translation of its information on products and industries into the classifications used by the SUTs. It seems that the combined information on 4-digit NACE rev.1.1 and broad product-categories is sufficient for this purpose, but the coding needs to be done manually. The task will be finished before the next mission.

A similar coding of SBS for 2013 should be less complicated as this survey is classified by NACE rev.2. It does, however require that its product-codes are translated into an understandable language. The KaS should provide a sheet with translations (similar to the translations of the headings in the 2012-SBS). The Danish expert will then look at how the coding for SUTs-purposes can be completed.

2.3.6 Service industries covered by SBS and/or VAT-statistics.

What is said above about manufacturing industries also applies to service industries that are covered by VAT- and SBS-statistics. Here the product structures will probably need to rely on the NACE-coding alone in many industries.

2.3.7 Non-profit institutions serving households (NPISHs).

Statistics showing input, compensation of employees, taxes and subsidies on production, revenues and investment is available as an Excel workbook. As it contains a complete distribution by the various-organizations, it should be possible to code the output of each by the relevant industries and output-codes. Information on inputs are scarce, but its product-

structures may be estimated based e.g. on similar input structures within general government. The coding has not started yet.

2.3.8 General government.

Input in general government is already coded in a systematic way by type of product. The construction of a correspondence table between this coding and the product codes that will be used in the SUTs is in progress and can be expected to be finished before the next mission.

Other expenses as wages and salaries and net-taxes on production should be coded by transaction codes. Totals for output as well as inputs can then be calculated as sum-of-costs by purpose (industries). I may be necessary to provide some estimates of consumption of fixed capital to finish the calculation of government production.

The distinction between individual and collective consumption can probably be determined by the type of government service. This will have to be decided during the next mission.

2.3.9 Services not covered by SBS or VAT-statistics?

VAT-statistics seem to have a very high coverage also in areas with VAT-exempt turnover. Nevertheless it should be investigated whether certain services are not recognised in any of the data-sources previously mentioned, in which case estimates will need to be improvised in other ways.

2.3.10 Household final consumption.

The HBS for 2013 is available as spreadsheet coded by detailed COICOP and grossed up to cover total population. Hence initial targets for column-totals for the 2-digit COICOP groups are easily calculated. Converting the data into product-structures for each of these groups is less straightforward. A correspondence table showing the connection between 4-digit COICOP and CPA has turned up to be less precise than required for the purpose and most of the translation to SUT-products seems to require manual coding.

Translation into SUT-products has started. It may be necessary to assign more than a single person to this task, as it seems to be rather time-consuming and it is important that the data is ready to be entered into the SUT-environment at the start of the next mission.

2.3.11 Exhaustiveness, non-observed economy.

It is generally believed that Kosovo has a significant unobserved economy. Ideally a systematic approach to estimation of its size should be followed e.g. based on the number of people that are participating in production that is not covered by any of the sources used for estimation of the formal economy and average incomes from such activities.

It should at least be considered to make such estimates for areas known to contain significant hidden production. Another approach is to compare the calculated values from the use-side with the values that are available from the supply side. Where supply seems to be missing it can indicate hidden activity that shall be added to the production figures.

3. Conclusions and recommendations

During this mission work has started in those areas where the necessary data is available. A number of correspondence tables needed for the conversion of source-data are being completed. This work should be continued and as far as possible finished before the next mission. An Excel framework for the SUTs has been created and source data can be entered into this framework when converted to SUT-classifications.

Because source data from SBS and PRODCOM-statistics will not be finished before mid-September 2015, population of the supply side of the SUTs should not be finished until these important sources are available. It is furthermore important, that the people in KaS has the necessary time to finish their tasks. At the start of the next mission the missing supply data should be put together and all data inputs should be brought on the standardized form that is ready to be entered into the Excel framework.

Balancing of supply and can start when initial values have been entered into the system, but is not really useful until the supply matrix has got a credible content.

Some data still need to be made available. People in KaS should specifically look for information on foreign trade in services and on the distribution by products of taxes and subsidies on products.

Before the next mission the Danish experts will consider adjustments to the models that will be used to calculate the distributions of trade margins, net taxes on products and VAT.

Taking into account that the late appearance of important data sources it seems appropriate to modify the proposal for the project time schedule.

Revised plan for activities in 2015/2016

	Time	**Most important issues**
1	March 09-13, 2015	Fact finding mission
2	June 22-26, 2015	Classifications, correspondence tables and coding of source data. (this mission)
3	Early October 2015	Supply by industries and products. Data entry, distribution of taxes, trade- and transport margins.
4	Early November 2015	Balancing of supply and use for each product.
5	Late November or early December 2015	Adjustment to targets for industry inputs and final uses
6	Mid or late January 2016	Final balancing of margins, taxes and VAT, breakdown of GVA, symmetric I-O table.
7	February 2016	Unsolved issues. Presentation of final versions of the results. Proposals for future work.

Much of the work will still need to be done between the missions and the success of the project will depend on availability of resources for the purpose in KAS.

Source data will need to be brought on a standardised format and aggregated into the SUT-classifications before it can be entered into the SUT framework. It is recommendable that initial data entry is finished before the planned November mission. Realistically some unresolved problems may probably need to be investigated in connection with the start of balancing in this mission.

Balancing of product balances and final balancing of trade-margins, taxes and VAT could require at least two missions, but such requirements will depend on the quality of the data that are initially entered into the system.

When a fully balanced SUT system has been compiled, a symmetric Input-Output table can be compiled. This is here planned to start in the mission in January.

It is necessary that those people who will work on SUTs have the necessary time. It is now considered unrealistic that population of the SUT framework with data can start before the October 2015.




EU Twinning Project
KS12 IB ST 01
Support to Statistics

Terms of Reference:

Component 2: National Accounts
Activity 2.6.1: Continued support to implementation of Action Plan. With a focus on SUT

Scheduling:
Tor –ready date: 8 June 2015
Start / end of activity: 22-26 June 2015
Reporting time: 3 July 2015

Mandatory result of the component:

Mandatory Result	Intervention logic	Benchmarks	Sources of information	Assumptions
2.3.1	Initial support to implementation of Action Plan for National Accounts Continued support to implementation of Action Plan for National Accounts Final Support to implementation of Action Plan for National Accounts	• Mission report uploaded on project homepage • Selected areas of the National Accounts updated according to ESA2010	• Twinning quarterly reports • Mission Report • Updated action plan	• Sufficient absorption capacity • Low turn-over of staff involved in implementation • Staff works on project related tasks in between missions • Access to accurate primary statistics • A detailed Terms of Reference is developed in a timely manner detailing tasks (input), expected output, participants of the activity and agenda

Subject / purpose of activity: 2.6.1 activity
Support to the compilation of national accounts in Kosovo. Special focus on Supply and Use Tables (SUT). This mission is a continuation of Mr. Larsen's mission 2.3.1.5 in March 2015 Larsen. The mission in March, which was a fact-finding mission, concluded that it would be possible to form the Supply and Use Tables (SUT) for National Accounts in Kosovo. Six future missions were planned:

1. Coding of data (this mission)
2. Data entry
3. Balancing supply and use for each product
4. Adjustments to industry targets
5. Final balancing, IO
6. Presentation of results

Expected output of activity 2.6.1:
Mission report describing results of coding of data to be used for SUT
Recommendations for the way ahead for SUT in KAS
Description of work done during the mission and work that needs to be completed before the next activity

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Description of the background for the activity
The 2012 Adapted Global Assessment report (AGA) prepared by Eurostat states the following about National Accounts (p.53-54): In 2010 KAS prepared with IPA support an "Action Plan for compiling and publishing comprehensive statistics on National Accounts and labour market". That Plan is in principle a useful instrument to organize the future development of National Accounts together with the development of standards and sources that are needed for the enhancement of coverage and improvement of National Accounts data.

The Twinning Project has already had several activities in Component #2 National Accounts including a fact finding mission on SUTs.

During the last mission KAS and the expert found that it would be possible to create SUT for National Accounts in Kosovo. This mission willstart coding data on Agriculture and Government output and input. The mission will further investigate the state of SBS data to be used for SUT.

Activities to be undertaken in preparation for the mission:

- Previous mission reports on NA component. All published at www.dst.dk/kosovo

The expected activities are:

- Update of action plan for improvement of National Accounts with SUT
- Further development of detailed plan for future actions on SUT by the twinning program
- Coding of data started

Expected output:

- Mission report – according to template
- Detailed plan for further activities to be completed in component 2 by the twinning program
- Updated version of timetable for SUT
- List of actions to be taken before next mission

Annex 1. Agenda – June 2015

Day	Place	Time	Event
1	KAS	10:00	KAS: Overview of what has been accomplished since the previous mission on NA
		10:45	Coffee break
		11:00	Discussion on plans for this week
		12:00	Lunch break
		13:30-15:30	Collecting and coding data
2	KAS	09:00-16:00	Collecting and coding data
3	KAS	09:00-16:00	Collecting and coding data
4	KAS	09:00-16:00	Collecting and coding data Discussion on recommendations A plan for next mission and what to do before next mission Report writing
5	KAS	10:00-12:00	Report writing Debriefing (Expert, Component Leader, BC Project Leader and RTA)