

# **Study on Statistical Training in International Cooperation**

## **Final Report**

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The author accepts sole responsibility for this report drawn up on behalf of the Commission of the European Communities. The report does not necessarily reflect the official views of the Commission.

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## List of Abbreviations and acronyms

|          |  |
|----------|--|
| ACBF     | African Capacity Building Foundation   |
| AFDB     | African Development Bank   |
| AFRISTAT | Observatoire économique et statistique d'Afrique Subsaharienne                                 |
| AR       | Assessment Report  |
| ASTRA    | Assessment of Statistical Training - MIS-ST Database   |
| CASD     | Coordinating Committee for Statistics Development  |
| CCSA     | Committee for the Coordination of Statistics Activities  |
| ASCC     | African Coordination Statistics Committee  |
| CODESA   | Comité des Directeurs des Ecoles Statistiques Africaines                                       |
| CODI     | Committee on Development Information   |
| COMESA   | Common Market for Eastern and Southern Countries   |
| EASTC    | Eastern Africa statistical Training Centre   |
| ECA      | Economic Commission for Africa   |
| ECOWAS   | Economic Community of West African States  |
| EU       | European Union   |
| FASDEV   | Forum on African Statistical Development   |
| GDDS     | General Data Dissemination System  |
| ICP      | International Comparison Programme   |
| ISAE     | Institute of Statistics and Applied Economics  |
| MDG      | Millennium Development Goals   |
| MIS-ST   | Management Information System for Management Decision Making on<br>Statistics Related Training |
| NEPAD    | New Partnership for African Development  |
| NSDS     | National Strategy for Development of Statistics  |
| NPRS     | National Poverty Reduction Strategies  |
| NSO/NSI  | National Statistics Offices/National Statistics Institutes                                     |
| NSS      | National Statistics System   |
| PARIS21  | Partners in Statistics for 21 <sup>st</sup> Century  |
| PhD      | Doctorate of Philosophy  |
| PRSD     | Poverty Reduction Strategy Programme   |
| RRSF     | Reference Regional Strategic Framework for Statistical Capacity Building in<br>Africa          |
| SADC     | Southern African Development Community   |
| STC      | Statistical Training Centers   |
| STPA     | Statistical Training Programme for Africa  |

## INTRODUCTION

### **1. *Background of the study***

The EC has been strongly involved in supporting statistical training for and in ACP countries over the past 40 years. Namely the past 20 years gave rise to a number of important EC medium-term regional training projects especially for Africa. Main focus was given to supporting training institutions (national, regional and international) for long-term basic university-level or medium level statistics training - via scholarships but also via direct financing of the institutions (infrastructure, curriculum development, “concoors communs”, twinning with European training institutions etc.). Only one of the supported training institutions (the then so-called Munich Centre<sup>1</sup>) was exclusively dedicated to short and medium-term courses for professional statisticians (and users of statistics) already in post.

In parallel it has been observed that a number of those statisticians trained were either not employed by the NSS (budgetary availability) or leave the NSS for jobs in other institutions (national, regional, international) mainly the private sector for better job careers and/or salaries. Whereas this may certainly be considered as an indicator for the perception of the quality of the statisticians trained (as such also an important factor for the NSS) and whereas the support to training institutions may assist general development objectives the approach did not appear to be the most effective for assisting the NSS and the quality of their statistical production. Improving the supply side of statisticians trained need not be sufficient to improve the NSS.

Support to statistical training and sector oriented support programmes were priorities of the EC support to the NSS in Africa for a number of years. In the late 1990<sup>th</sup> and the early years 2000 the international community including the EC started to focus on capacity building approaches, including the Development of National Statistical Development Strategies (NSDS) and/or 'Plans for Improvement' within the framework of the IMF General Data Dissemination System (GDDS). Statistical training needs to integrate the capacity building and development strategies of the NSS – henceforth also the donor support programmes.

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<sup>1</sup> Today the InWEnt Centre for Economic, Environmental and Social statistics in Bonn

Direct donor support to the African Statistical Training Centres, especially from the EC as a historical important actor in that field, was more or less completely stopped over the past years.

In the field of statistical development cooperation the EU focuses regional statistical programmes – statistics components are also part of larger sector related development programmes. The EU (Eurostat) is member of the Paris 21 network and as such assists in the activities of the network.

The 2000-2007 EC SADC RSTP (Regional Statistical Training Project) put focus on short-term in-service training for personnel already employed to produce, manage or use statistics, (including training of trainers) integrating regional and national needs/demands. The project placed the identification of regional short courses in the hands of the SADC committee of the NSIs concerned; national short courses were specified with assistance from the project. Moreover, the project developed a regional training strategy and supported its adaptation to national needs. The regional EASTC (Eastern African Statistical Training Centre) in Dar-es-Salaam has assisted in the implementation of the training programme for SADC countries.

Monitoring of the SADC RSTP suggested that statistical training should not focus 'heavily on training only instead of comprehensive capacity building and quality management in statistical systems ... [to avoid] adverse effect[s] on sustainability.'

In consequence of the long-term EC experience and in the light of conclusions of several evaluations Eurostat did develop the idea of providing ACP countries with a kind of management tool assisting (i) in identifying and prioritising statistics related training needs/demands of the **NSS**<sup>2</sup> taking into account their NSDS/or GDDS improvement plans or any other development or action plans and (ii) based on this information allow **training institutions** to better reply to the demands of their major clients, the NSS (at national or regional levels). (iii) **Regional organisations** receiving user oriented information from the

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<sup>2</sup> The National Statistical Systems are composed of all producers of official statistics (NSI, Line Ministries, Central Banks, etc.) within a country. As a standard, in theory the National Statistical Institutes are in charge of coordinating the NSS. Where modern statistical laws exist this role of the NSI is in most cases legally fixed. However in practice the NSI have difficulties to play their coordinating role within the NSS (receiving data sets and metadata, data archiving, orienting/controlling methods and norms, etc.). This means most probably also that the NSS aggregation of training needs/demands within the MIS-ST will not be easy to achieve. The best institutional level to handle the NSS data-gathering has to be identified by each country. However the NSI shall handle the MIS-ST as the coordinating actor.

tool will be able to have an overview on the training needs/demands expressed at national levels in the region concerned, they may identify regional training needs and coordinate more easily with national demands/needs. Based again on user oriented information from the tool (iv) **donors** may also improve to identify the expression of needs/demand of the NSS (including at regional levels) and coordinate their activities, express their views, and their needs too.

The output is intended for use as an input into statistical capacity building proposals and so to underpin applications for government and donor funding.

The idea was presented by Eurostat to SADC countries, in the framework of the RST Project, and a number of countries apparently expressed strong interest in using such a tool.

## **2. Study rationale and focus**

The purpose of the study is henceforth defined by Eurostat in the terms of reference as “to make training for statistics in ACP (Africa, Caribbean and Pacific) countries more effective through improved analytic, quantitative information on:

- *The demands of National Statistics Systems for different types of statistics-related training*
- *The demands from all sources for the services of statistics-related training providers*
- *The provision (supply) of statistics training*

*Concretely, the study will develop a management tool to collect and analyse this information. The management tool and supporting materials, such as questionnaires, are intended for use on behalf of NSI / NSS and training providers to analyse and quantify the demands for statistics-related training and, to a lesser extent, the provision (supply) of training.”<sup>3</sup>*

In other terms, the **global objective** pursued by the study is to enhance the convergence of the statistical training supply and demand.

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<sup>3</sup> Eurostat terms of references call for tender N° 2007/S 179-218233



As the **specific objectives** to achieve this global objective shall be considered the following:

- to support NSI/NSS in the identification of their training needs and the prioritisation of their training demands in a sustainable way (capacity building dimension of the management information system) and integrated in a national strategic framework (NSDS and /or similar),
- to contribute to donors coordination through systematic information production on training demands based on a sound management process at the NSS level in the form of direct outputs from the system (assessment reports),
- to identify the scope, the limitations and potentialities of the current statistical training offer,
- to re-establish proper communication between the demand and the supply side.

In accordance with the terms of references of the study and following discussions with Eurostat, it was confirmed that the management tool shall focus more the demand side and, therefore, that the scope of the study would cover as a priority the first specific objective.

However, to achieve the global objective the subjects covered by the other 3 specific objectives shall not be neglected. Part of this study report intends therefore to examine the framework in which donors and National Governments and their Statistical Systems interact – the statistical capacity building framework-, to give a broad picture of the status of the statistical training offer at least from the point of view of the African STC and the level of communication within the system.

The study report covers therefore in its part A the framework in which the Management Information Tool is settled as a Statistical Capacity Building measure and in the second part B the Management Information System (MIS-ST) as such:

**Part A:** Statistical training demand and offer: cooperation framework, description and bridge

- Statistical capacity building framework in Sub-Saharan Africa
- Demand side – State of the art
- Supply side – State of the art

- Bridge between both sides – State of the art
- Room for improvement

**Part B:** The management information system for management decision making on statistics related training

**Part C:** Proposal for best practice framework implementation

### **3. Summary**

The study's objective to develop a management tool to collect and analyse information requires more than a simple database, it requires a tool that facilitates and organises systematically the decision making process linked to the identification of statistics related training needs within the NSS and provides a sound basis of information that covers the various dimensions of the demand and supply for/of training in statistics.

However, general report of the demand and supply for/of training in statistics would be rather unspecific: different user groups – e.g. training providers, regional organisations, donors - need different information for decision making. Therefore, the MIS-ST provides different assessment reports – as key deliverables of the Management Information System – for each user group. Seven assessment reports are successively produced for different levels. The content is generated by the database system which leads through the different steps of the decision making processes starting from the collection of information.

The objective of the tool is to collect all relevant information on statistical training and a didactic approach is used to reveal the training needs: The system is motivation led – this means that the statistical activity (survey, census, etc.) is the key reference to which the training demand is linked. The key primary information is the one coming from the statistical production unit. The production unit may be at the NSI or in any other data producing institution within the NSS. Private institutions may use the same functionalities of the system (database) if so requested. Furthermore, to avoid an unspecific “whish-list” of training needs, a mechanism for adjustment is included in the tool: In their responsibility for the budget, institutional decision makers have to prioritise all institutional training needs. Within the database, decision makers are requested to allocate a percentage of the whole training budget – a virtual budget - for the aggregated training demand of the following years. Since prioritisation is not an automatic process, the effectiveness of the tool is depended on the

quality of the management. The main purpose of the handbook, as provided in the annex, is to support the didactic approach.

Therefore, MIS-ST is a toolbox which contains three tools:

- The assessment reports are information and decision making tools for the NSIs, other statistical producers in NSS, regional organizations, donors and statistical training centres. Examples of assessment reports are provided in the handbook (included in Annex 1)
- The database, basically considered as an input tool, generates the assessment reports and feeds the decision making process. (Annex 2)
- The handbook describes the MIS-ST system and provides instruction for the decision making process and for all the successive steps of the operation. It refers specifically (where indicated) to other sources/references (action plans, NSDS, GDDS, regional programmes, national policies, PRSP, international obligations, donor financing, etc....) that need to be taken into consideration through the whole process. (Annex 1)

An introductory document: “At a Glance: The Management Information System on Statistical Training – MIS-ST” is provided additionally for advocacy purposes (Annex 3)

#### **4. *Limits of the study***

As per the terms of references the study is designed as a desk study.

Therefore it is considered that the output as a tool is a prototype product that needs to be finished up by confronting it to its target environment and the users.

Pilot implementation phases for any produced tool supporting the Management Information System and the system itself were planned out of the scope of this study.

The study and henceforth the development of the Management Information System are therefore solely based on:

- Study of relevant information concerning statistical capacity building initiatives,

- Evaluation/assessment reports on national statistical systems,
- Development cooperation programmes and projects in statistics,
- Exchanges with the regional African French speaking statistical training centres in Paris (at the CODESA meeting) and with French-speaking regional and national training centres and English-speaking African Universities in Abidjan at the wrap-up meeting of the needs study for statistical training centres commissioned by the ACBF (African Capacity Building Foundation),
- Exchanges with Eurostat and to a lesser extend with Paris 21 and the AFDB of which representatives were present in the two above-mentioned meetings,
- Experience of the study team concerning national statistical systems in Africa, capacity building initiatives in Africa and other regions (including EU programmes) and of statistical training for African statisticians.

Even though pilot phases with countries were planned out of the scope of this study Eurostat agreed to run a technical test phase with some selected countries in a close exchange between the consultants and the concerned professionals of the NSI/or a training centre before the tool is provided to Eurostat. Unfortunately this was no longer possible due to time constraints encountered by Eurostat who wanted to set up the test phase directly via the SADC Secretariat and Afristat. This test phase aimed at ensuring the tool is appropriate to the needs of the NSI and would have allowed the consultant to adapt the tool considering the reactions and inputs of the future users.

To ensure the tool is properly working and appropriate to the users reality it is recommended to add a first technical test phase with a reduced number of test persons/institutions to a sound pilot phase.

A well targeted and participatory implementation strategy is necessary to ensure the appropriation of the tool by the targeted users and henceforth its usefulness for all targeted actors in statistical development. Successful development and successful Statistical Capacity Building is a process that needs to be basically steered by the countries (see the Monterey consensus) – *country-driven, country-owned and country-specific*.

## **PART A: STATISTICAL TRAINING DEMAND AND SUPPLY: COOPERATION FRAMEWORK, DESCRIPTION AND BRIDGE**

### **1. *Statistical Capacity Building framework in sub-Saharan Africa***

At the beginning of the third millennium African and other developing countries, together with their developing partners have committed themselves to managing for development results or a results agenda. With the support of the international donor community National Poverty Reduction Strategies (NPRS) were designed (from 1999 on) and the UN member States have agreed upon the Millennium Declaration and the Millennium Development Goals. The monitoring of poverty reduction and sustainable development, the main converging goals of those two initiatives, require an important amount of information. Relevant and reliable statistical information is essential for evidence based policy decision making and results oriented development monitoring. This has created an enormous pressure on the national statistical systems of developing countries, demands and needs to which most of them were not able to reply in an appropriate way but also – and it took some time however – created the momentum for more important donor funding for the development of national statistical systems.

A number of initiatives have been set up to support the development of national statistical systems in Africa. Since the early years 2000 we are explicitly talking about **statistical capacity building** meaning that the whole statistical system is taken into account based on a sound development strategy and an implementation plan in its country development framework.

As the Addis Plan of Action for Statistical Development in Africa in the 1990s, the Marrakesh Action Plan for Statistics (2004)<sup>4</sup> is today still the common reference (as reconfirmed by the

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<sup>4</sup> The global plan for statistics = Marrakesh Action Plan for Statistics (2004) consists of six actions: **A first set of three addressing national needs:** 1. Mainstream strategic planning of statistical systems and prepare national strategies for the development of statistics (NSDS) for all low-income countries by 2006; 2. Begin preparations for the 2010 census round; 3. Increase financing for statistical capacity building. **A second set of actions addressing international responsibilities:** 4. Set up an International Household Survey Network; 5. Undertake urgent improvements needed for monitoring the MDG; 6. Increase accountability of the international statistical system.

Third international round table on Managing for Development results in Hanoi 2/2007) for African countries and donors for the development of the African National Statistical Systems in accordance with national, regional and international needs based on a result oriented development approach.

Today National Statistical Development Strategies (NSDS) or any other national strategy programmes and national action plans that cover the development of the National Statistical Systems are THE core reference for statistical capacity building.

It is around their elaboration and their implementation that capacity building interventions are structured. Many actors at various levels intervene in this area:

At **national level**, in addition to national governments, the key actors are National Statistical Institutes, line Ministries producing official statistics and in the ideal case also the users (whereas users may sometimes also be producers and donors may sometimes also be users...).

At **sub-regional level**, African actors like Afristat play an eminent role to assist statistical capacity building in Africa. Regional organisations like the SADC secretariat or ECOWAS have a strong mandate for regional harmonisation and standardisation and are an important actor for regional statistical capacity building.

At **regional level** major African operators are the UNECA with the African Centre for Statistics (ACS) and STATCOM Africa as its subsidiary body for statistics, the AFDB and to some extent the African Capacity Building Foundation (ACBF) and the African Union (AU). All four institutions coordinate the Reference Regional Strategic Framework for Statistical Capacity Building in Africa (RRSF).

At **bilateral level**, a number of European Member States but also Research Institutes, civil society organisations and others are active.

At **international level** operate donors such as the UN agencies, the World Bank, the IMF, OECD, Paris 21 and the European Commission.

In addition, a number of intergovernmental initiatives which regularly meet are created around statistical development, of which among others the Forum on African Statistical Development (FASDEV), the Committee on Development Information with its statistics subgroup (CODI), the Statistical Commission for Africa (STATCOM Africa) and the African Statistical Coordination Committee (ASCC).

All this shows the increasing interest and recognition among policy makers of the need for statistics to influence and monitor outcomes. The advocacy work of Paris 21 for example and actions by many others have succeeded in raising the profile of statistics.

Now it needs to be proved that all the awareness, all these initiatives by so many actors succeed to the same end: A sustainable capacity building process at the country levels replying to the needs with an acceptable quality of statistical information. However this is not depending on input in statistics capacity building only – it is a question of development initiatives between the countries and their partners.

### **Statistical Capacity Building and the Paris Declaration**

Since 2005 more than 100 countries, almost 30 international organisations and a dozen of NGO have signed the Paris Declaration on aid effectiveness. This declaration is governed by 5 principals: appropriation, alignment to national development strategies, harmonization of donors' action, a management aimed at results and mutual responsibility for the results by donors and partner countries. Aid effectiveness has become a common commitment of donor and partner countries and the declaration defines the way towards that effectiveness. First experiences show that signature countries take this commitment seriously.

The 2008 aid effectiveness progress report on the implementation of the Paris Declaration<sup>5</sup> prepared for the High Level Forum on aid effectiveness in Ghana (2-4<sup>th</sup> September 2008) concludes that progress has been achieved but that this is very much varying by partner and by donor and by partnership principle. Still a lot needs to be done to achieve the goals of the declaration by 2010.

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<sup>5</sup>The report was prepared by the Working Party on Aid Effectiveness (WP-EFF), the international partnership of donors and partner countries hosted by the OECD/DAC.

*“Part I sets out eight main messages (part 1)*

- 1. Good progress is being made in some important respects, but not in others. Insofar as the (sometimes partial) data allow us to judge, acceleration will often be needed if the aims of the Paris Declaration are to be met by 2010.*
- 2. Progress varies by partner and by donor.*
- 3. The ultimate rationale of the Declaration must always be borne in mind: it is a key instrument to bring about improved development outcomes; and it will only be fully effective in achieving these if it is made mutually complementary with measures in other policy areas, and if its wider (and changing) context is understood.*
- 4. Accelerated progress on the Paris Declaration requires political leadership, but the Declaration does not yet have enough political resonance.*
- 5. If the Paris Declaration’s aims are to be met, donor and partner patterns of behaviour must change; but this will only happen if the underlying incentives shift.*

Source: Aid effectiveness - Progress report on the implementation of the Paris Declaration, 3rd High Level Forum for aid effectiveness, 2-4th September 2008, Accra, Ghana.

Statistical Capacity Building is today politically and operationally strongly linked to the results based approach for development policies and strategies agreed by the international community and their partners. That is why the above messages from the progress report on the Paris Declaration are relevant in this context. Statistical capacity building is much wider than only putting emphasis on the statistical systems themselves. Effective statistical Capacity Building depends a lot on the fact that the overall development framework, the developing partners have committed to also in the Paris Declaration, are working: within the partner countries (ownership, political leadership, harmonization, accountability) and at the donor level (harmonization, accountability, ownership with the partners, alignment with national processes) – and between both, having the same objective: results orientation.

In this context, the development of a management system for statistical training is meant first to **support** and second to **contribute** to the global Statistical Capacity Building processes. To support because it is supposed to be used as an assessment and monitoring tool by the NSS for a proper identification of training needs and demands – but also as an information tool for training providers, regional organisations and donors. To contribute because the system is designed aiming at building sustainable capacities within the NSS to enable the statistical institutions to maintain the newly build linkages on a regular basis.

## **2. Demand side – State of the art**

Although the development of the capacities of national statistical information systems in sub-Saharan African countries has been at stake for quite a long time and although quite important efforts were made by the countries and with the support of the international donor community, the main assessments and reviews made of official statistics and statistical



information systems in the countries of the region still come up with quite a weak picture on the quality of their performance. Some improvement, sometimes specifically linked to an individual country, has however been registered during the past couple of years. The main achievement for the moment is may be due to the consensus on the need for elaboration and implementation of NSDS as a core reference for results oriented statistical development.

In most countries public statistics have for a long time not been – and in fact are still not – a national priority albeit any political declarations made at international levels and elsewhere because for African governments statistics are just one among many demands upon government finances. In general, with very few exceptions, one can still say that National Statistical Institutes in Sub-Saharan countries lack appropriate human resources in terms of numbers and quality, lack a sound human resources management with career opportunities and appropriate salary development policies, lack up to date equipment, lack appropriate premises, lack sufficient medium/long-term financial security, lack technical practical experience, lack new methodologies, still lack the implementation of well designed development strategies – although an important number of countries have elaborated national strategies for the development of their statistical systems. Many national statistical systems that are the official producers of statistical information needed to monitor development are trapped in a vicious circle of limited resources and poor performance. They lack capacity to collect, compile and disseminate even the minimum data needed, to respond to new challenges and new demands for data. Trust in national statistics is poor and demands/use is therefore poor too. In most countries the National Statistical Institutes are supposed to coordinate the National Statistical Systems (statistical law – however, the statistical legislation is often outdated), to orient and guarantee for the quality of a coordinated system in terms of terminology, methodology, metadata, respect of the guiding principles of official statistics (UN), international comparability, etc. but in most cases they lack the capacity to do so (mainly due to a lack of resources but also to a lack of political weight with reference to the producing line ministries, etc.). That is at least what can basically be concluded from the results of a number of assessments made during the past 3-5 years.

**Appropriately qualified** human resources in an appropriate number corresponding to the needs and the reality of the NSS are an important input into statistical capacity building.

Appropriate qualification is among other an output of initial training as a professional statistician adapted to the needs of an official statistics producer institution or of basic statistical training of professionals qualified in other sectors working within the NSS, of

continued training allowing specialization and adaptation to new technologies, methodologies, topics etc. during the professional life and so on.

A sound strategic plan in Human Resources management, ideally directly derived from the NSDS or similar, shall include training, appropriate career opportunities and salaries and a good working environment. To increase the performance of the institutions accompanying measures in organizational development are essential. These are prerequisites to sustainable capacity building at the institution level.

### **3. Supply side – State of the art <sup>6</sup>**

Today apart from a few exceptions African NSS lack appropriate human resources in terms of quality and number – the turnover is high. Assessments consider that specialized Statistical Training Centers (STC) “produce” a sufficiently high number of statisticians in total but the situation within the NSS is varying from country to country. Apparently in the French-speaking sphere the production for the region the STC is serving is rather low – so that the national market is privileged (for example RCI and Cameroon provide a rather high number of scholarships for “their” schools on a regular basis – the NSI in Cameroon recruits almost all ISE and ITS students from ISSEA, in RCI the market is much larger than the NSS and almost all nationals plus even some foreign students find a job in RCI). Also, bigger and economically stronger countries seem to be privileged as more students of these countries pass the common entrance examination because of better preparation and if students from smaller countries pass they are not taking up the studies because of lack of scholarships (the NSI in Mali for example is almost “free” of professional statisticians). Lack of budgetary resources in the public statistics sector seems however to be the main reason for insufficient recruitment, or low salaries and lacking career opportunities – often reflecting the low reputation of the NSS – to keep the professional statisticians in post.

The former section concluded that in general the performance of NSS is rather poor even though steps forward were made in the past years. Several assessments come to the

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<sup>6</sup> Mainly sub-Saharan statistical training institutions with a regional character, such as ENSEA Abidjan, ISSEA Yaoundé, ENSAE Dakar, EASTC Dar-es-Salaam, ISAE Makerere University Kampala, University of Botswana, Department of Statistics, Gaborone and some national institutions such as the CFP at the NSI of Niger which is assisted scientifically by the ENSEA Abidjan. This list is of course not exhaustive but covers the main providers of initial training in applied statistics in sub-Saharan Africa.

conclusion that the investments made in statistical training via the statistical training centers and their activities are not reflected in an increase of performance of the NSS. Apparently training was very effective in individual capacity building and not in institutional capacity building as far as a big number of NSI is concerned. This may lead to the conclusion that investing in the statistical training centers is not effective if the objective is strengthening of the NSS solely. However the explanation of the relative weakness of the NSS may come from several sides: insufficiency of budgetary resources to recruit the appropriate number of statisticians; other constraints that influence the development of the NSS such as lack of material and financial means, lack in management or a weak support by political decision-makers.

From discussions with English- and French speaking regional STC one may retain the following:

- The French and the English Speaking areas are different: Universities still train more scientific/academic statisticians; French speaking STC train more practically oriented statisticians however not only focusing the production of official statistics.
- No systematic exchange with NSI is granted in most of the cases apart from national training institutions that serve specifically the needs of their countries NSI (eg. Niger).
- Curricula and examinations in French speaking STC are highly coordinated and internationally fully recognized via the French system.
- Scholarships for students are a crucial factor.
- Harmonization between the statistical training schemes in the English and the French speaking African countries is an issue but in the sense of systematic exchanges and a better understanding and peer learning but not (yet) in a sense of making all curricula exactly the same. French-Speaking curricula are actually adapted to the international Bachelor, Master, PhD system.
- African Portuguese speaking countries lack appropriate training opportunities in applied statistics.

- English-speaking Western African countries have difficulties to join the English speaking STC because of distance and costs.
- All STC are desperately looking for direct financing.
- Some seem to be more aware than others that they quickly need to adapt to changing challenges the NSI are facing – especially the results based ones in terms of PRSP or MDG monitoring – or the Paris Declaration monitoring.
- Regional STC may assist national training initiatives as a kind of a scientific guarantee for the quality of the content and the examinations.
- Some STC stress that they are not only focusing the NSS but the whole public sector and the private sector too.

The only more global specific statistical training initiative focusing the STC for the moment seems to be a programme financing under preparation with the ACBF (African Capacity Building Foundation) to be submitted for acceptance to their Board in December 2008.

Such as for the Statistical Capacity Building (SCB) initiatives in Africa a number of initiatives are launched for statistical training too. Most of them by the same actors that are active in SCB too as training is an integral part of SCB. Some are acting more globally, others in sector fields, again others as part of sector statistics projects/programmes.

Here the same conclusions may be made as earlier: the effectiveness of statistical training and of support to statistical training and its effects on statistical capacity building is not an isolated matter. It too depends on the factors that influence the effectiveness of the capacity building initiatives and the global development of the countries. However training is traditionally seen as a field that is always worthwhile to invest in as investment in education is always also an investment in potential for development. However one needs to define very carefully the objectives and results expected.

The objectives and the intended outcomes of the study and of the Management Information System were presented at the CODESA and ACBF meetings as an additional item integrated in their agenda. Although participants were requested to comment, no detailed feed back on the Management Information System was received after those meetings.

In brief the outcomes of those two meetings are:

- Evaluating the needs for statistical training is important in numbers and content and time,
- Training centres feel isolated from NSI/NSS and henceforth have difficulties to evaluate more in detail the needs of their major client,
- Needs for qualified statisticians for official statistics are important but are varying by country and
- Countries may need individual solutions for their individual situations.

An important factor to note is that institutions like Statistical Training Centres need to have long term perspectives. They cannot reduce substantially or stop their training capacity because needs assessments have shown that in the short – or medium term period statisticians are not needed or not recruited for budgetary reasons without losing their capacity of replying quickly to increasing needs once the situation changes. The problem becomes then a structural one over years with even worse long term effects on the NSS and other sectors important for the development of the countries (this has happened already within other sectors). This means that although assessing training needs is crucial within a the strategic planning of the NSS and the STC (Statistical Training Centres) especially for the basic statistical training of high level and also medium level statisticians/technicians, the results of needs assessment shall be handled with care and always in a medium/long-term perspective – this concerns the number of statisticians to be trained and the adaptation of the content to changing needs.

#### **4. *Communication between both sides – State of the art***

Some of the training centers regret a lack of systematic exchange on training needs/demands with the NSI of their user countries. Statistical Capacity Building initiatives such as global development initiatives now focus more on country specificities - without of course forgetting their regional frameworks. Some of the training institutions consider that they shall be better prepared to reply to specific needs of specific countries (for example Mali needing quickly a certain number of well trained statisticians to implement the NSDS accepted for funding by the donor community, the same might be the case for post-conflict countries, or in other cases countries recruit non-statisticians for management posts which need a basic systematic statistics training in a rather short period, etc.). Training contents

and formats shall be able to adapt to the changing needs of a changing environment of NSS. However curricula underlie a certain number of constraints – international comparability and recognition of the diploma for example, etc. Training and training strategies of NSS are supposedly integral parts of NSDS and therefore a close collaboration between the concerned actors at the country level and at the regional level from the conception phase of the NSDS on are a prerequisite for an appropriate service of the STC to the NSS. Communication between the NSI and the training institutions does not seem to be systematically part of a common collaboration culture. However in some English-speaking centers communication is more institutionalized. This is for example the case at EASTC Dar-es-Salaam with its Advisory Council composed by the NSI of their user countries meeting regularly. The institutional set-up exists and needs to be used accordingly.

It seems that the close and institutionalized link between NSI and STC has been somehow interrupted at the end of the STPA Programme in which the EU was largely involved.

## **5. Room for improvement and role for the tool**

The multifaceted set-up and the framework around the development of statistical systems in Africa are encouraging but still need a strong focusing of all implied actors.

First encouraging signs are not yet so much in the quality or the relevance of the statistical information produced, but probably more in the awareness of African governments that acknowledge the necessity to define their information needs for monitoring development progress and to bring those together with the capacities of the producers of official statistics, to plan strategically the development of the statistical information systems in accordance with the needs of the users, to adopt the strategic plans elaborated, to commit for mid/long-term budget support, together with their development partners, to implement the strategic plans etc. This may allow for a first optimistic feeling for an effective development of the capacities of the African National Statistical Systems according to the priorities defined. A couple of them do already quite well. But a long way still needs to be gone in a moving environment. NSDS or similar are under preparation in most of the countries, one can consider that implementation is still at its beginnings. Donors seem to be very ready to finance the implementation of reliable NSDS – but even then not in all countries the problems are solved by the donor commitment (for example in Mali the NSDS has received a very high donor commitment but the National Statistical System crucially lacks qualified statisticians to implement the NSDS).

We said that well prepared NSDS (and similar strategic plans) are the key for success in Statistical Capacity Building and that is even more true as they guarantee alignment with country development policies, priorities and needs, they allow easy donor coordination at the country level, ownership by the producers and users, - but their final success is not independent from the overall developing framework.

Taking this as a background improvements in the field of statistical training are needed for:

- a better definition of the demand and a better monitoring of the needs
- a more systematic coordination between NSI, Statistical Training Centers, Regional Organizations and donors
- a better planning capacity in the medium term for STC
- a better orientation to the changing demand
- a better integration of statistical training into Statistical Capacity Building approaches within the international framework

The tool proposed by Eurostat intends to contribute to this, to help NSI to better define and more systematically monitor their training needs and their demands in accordance with their development strategies and to help STC to better adapt to the needs and demands of their major clients. If the training needs of the NSS are sufficiently known or not, seems to be a question of interpretation depending on the perspective taken (institution). What seems to be sure is that training needs of NSS are not evaluated and monitored on a systematic basis and that systematic collaboration/exchange between NSS and the training centres is not granted.

That is the framework which the MIS-ST addresses. It is a contribution to management capacity building within the NSS. It addresses a very specific matter the one of providing the NSI with a tool to increase their capacity to monitor their training needs and demands. Once training needs and demands are better defined and monitored all concerned actors may adapt to the information according to their specific role in the set-up of capacity building. STC to adapt curricula/courses to national demands, regional organizations to better coordinate with national levels – synergy effects, donors to coordinate among them and to focus financing according to national realities and needs, etc...

## **PART B: THE MANAGEMENT INFORMATION SYSTEM FOR MANAGEMENT DECISION MAKING ON STATISTICS RELATED TRAINING (MIS-ST) <sup>7</sup>**

### ***1. Concept and method***

The inception phase of the study was dedicated to the development of an MS Access database allowing identifying the demand and the supply side of statistical training integrating quality concerns as well as strategic planning at the level of the National Statistical Systems.

The concept of this database was based on the understanding of the Eurostat description of the management tool expected and the proposal made by the contractor. The concept was developed bottom up on grounds of the practical experience of the contractor of African NSS and regional training institutions and their reality and taking into account their regional and international political and technical involvement (regional organisations, GDDS, NSDS – Paris 21, Afristat, etc...).

A first draft of the database system as proposed to Eurostat at the end of the inception phase was considered as being too complex and going beyond the study purpose and in the same time lacking focus on the deliverables the system shall produce.

Discussions with Eurostat and their comments to the inception report led to the following guidance for orientation:

- Key deliverables of the study are assessment reports easily to be understood and used for decision making by senior management of NSIs, other NSS members and training centres.

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<sup>7</sup> Working title



- The assessment reports are an output of the management tool as a whole, composed by the database but also by any other relevant factors or tools useful for the decision making process, e.g. Interviews, Workshop results or others.
- Assessment reports may be produced or not directly by the database system. The concept of the database system shall however be defined having these outputs in mind.
- It is therefore recommended to consider first the information needed in the assessment reports and then examine the flow of data collection, analysis and decision and revision that will lead to these outputs. The database system shall then reflect this sequence (top-down).
- The system shall guide the user through the decision making process from the collection of the information to the production of the assessment reports.
- Statistics activities and tasks (ex. EDS...) of the organisation are the motivation for the training demand.
- The management information system shall both be relevant to the needs of NSIs and other users and being capable of being implemented in African NSIs.

The MIS-ST has been adapted taking the above orientation into account. The concept, the tool based on its three components: the handbook, the ASTRA database and the assessment reports as such as proposed for the intermediate report were considered by Eurostat as being in accordance with their expectations. However a certain complexity of the description of the MIS-ST which may not be of a problem for technicians might however be contra productive to convince decision makers of the usefulness of the tool. The contractor was requested to provide a short and well targeted presentation of the tool giving a quick overview on its objectives and the results obtained from it. This presentation has been integrated into the handbook text.

Based on the guidance from Eurostat the consultant has mainly reoriented the approach to a top-down development concept – starting from the definition of a small number of easy-to-understand and to use assessment reports (all of them giving place for action of the user, if he wishes so), addressing different levels of decision making and different users, as key outputs of the system.

The input side of the system leads step by step through the decision making process from the collection of information to the decision making and/or commenting (depending on the user) – allowing different aggregation levels according to the users needs. An MS Access based database (ASTRA) supports main parts of this process.

The core of the MIS-ST is the “didactical” handbook which provides detailed description of the workflow for each step of the process, including all references, information sources, needed for a sound decision making process. The handbook will instruct the steps through the use of ASTRA (of which the functionalities are self-explaining) but also instruct analysis and/or revision processes based on the information provided by the assessment reports (produced through ASTRA) leading for example to a consolidated training plan for institution 1 for year N or to a request for the next national training budget or to a funding request to a specific donor, etc.

The handbook is an integral part of the MIS-ST and is annexed as a product to this report.

The MIS-ST as a management tool is henceforth composed of 3 types of products (all attached in the annexes): The handbook (see point B.4 on workflow), the assessment reports (see point B.5), the database (see point B.6).

As more explicitly mentioned in the chapter concerning the limits of the study some conceptual issues have been changed during the development phase of the tool beyond control of the consultant.

A stakeholder consultation meeting (Eurostat, Paris 21, INSEE, UNECA, Afristat, Consultant, etc.) as tentatively planned to be organised in Paris in July 2008 - in which stakeholders should have commented on the concept and structure of the MIS-ST, the relevance of the draft assessment reports, etc. has taken a slightly different form as initially planned. The consultant participated together with Eurostat to the CODESA meeting in Paris on 2<sup>nd</sup> July 2008. A short opportunity within the existing very tight agenda was given to Eurostat and the consultant to present the tool and exchange opinions with the participants. The time was short to be able to discuss the tool in depth and no additional feed back was received after the meeting. However all targeted stakeholders -except UNECA but with a representative of AFDB- were present and had a chance to have a first idea of the tool.

During the inception meeting Eurostat suggested to have a regional approach to the proposed country consultation<sup>8</sup>, meaning that it will be left to the SADC Secretariat and to Afristat to choose the countries they would like to participate in the consultation – the maximum of countries being 4, one of which was supposed to be Senegal (Afristat decided on Cameroon being the second French speaking country). The outcomes of the consultation process with Eurostat, the stakeholders and the test countries were supposed to be taken into account in the finalisation of the MIS-ST. However, for timing reasons, Eurostat did decide to skip the country consultation process, as initially planned, during the development phase of the tool. However this consultation process was not explicitly requested in the terms of references.

It was supposed that the database functionalities be adapted once the assessment reports and the concept behind those (contents, levels, users, their roles/intended action, etc.) have been commented by the stakeholders and the 4 test-countries. The actual tool has been finalized for submission to Eurostat without major feedback from stakeholders and without the country consultation phase.

It is however clear from the terms of references that the testing and tuning of the MIS-ST as a tool in the field will be undertaken in a further step after this study (see also point C).

## **2. What is the MIS-ST?**

- The MIS-ST is a tool that facilitates and organises decision making processes linked to statistics related training needs/demands within the NSS. It provides a sound basis of information for decision making, not the decision as such. The main users here are *institutional data producers of the NSS* mainly the *NSIs*. The basic reference unit is the statistical production unit. The NSI is the lead manager of the system (Human Resources Manager or other to be decided by the NSI).
- The MIS-ST is a tool that informs *Statistical Training Centres* - training providers - on the training needs/demands of their major clients, the NSS (data producers of official statistics) and allows them to improve their response to the needs and the

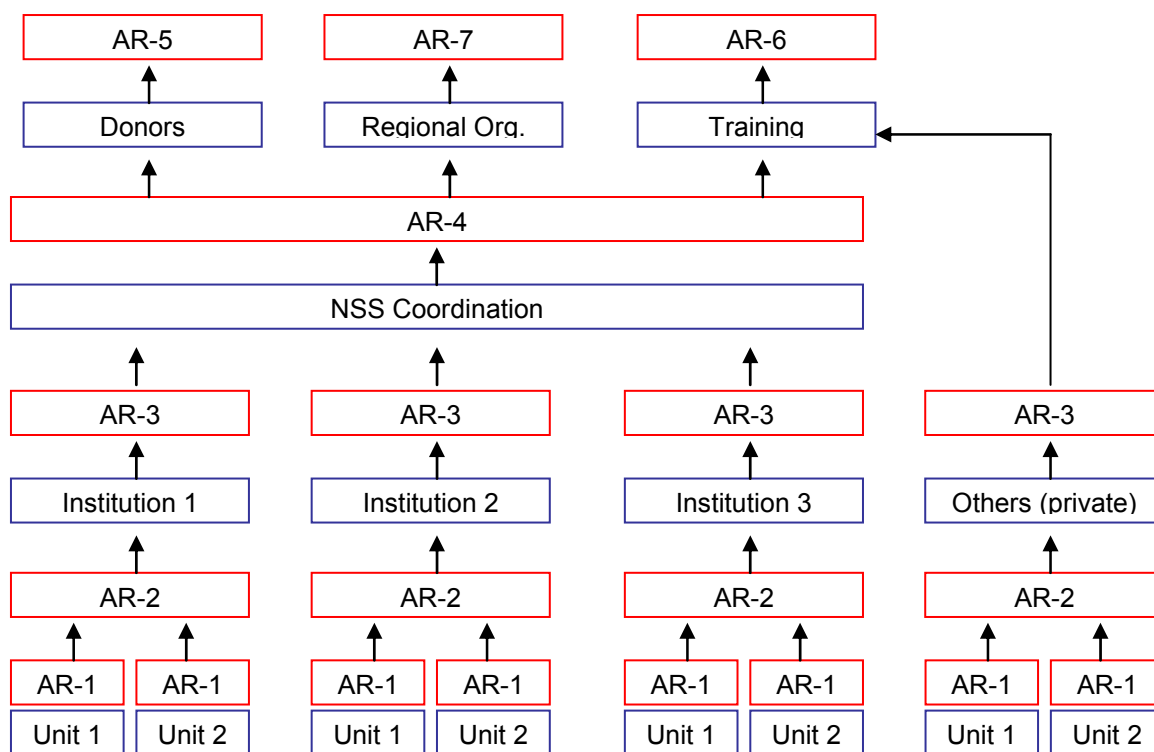
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<sup>8</sup> The contractor had initially suggested Uganda, Moçambique and Sénégal

demand of the NSS and to plan their training capacities over time (long-term basic and short term, on-the-job, specific). They may also use the system to identify statistics related training needs/demands from the *private sector*. It is expected that the MIS-ST provides rather concrete information on short-term training needs of statisticians within the NSS but will most probably not be of much help in estimating a very reliable number of statisticians to be trained at a basic level (long-term training) – mainly due to absence of reliable data on budget available for recruiting statisticians in the medium/long-term.

- The MIS-ST is a tool that informs *regional organisations* on the training needs/demands of the NSS of their region, allows for their comments and and/or identification of training needs at the regional level.
- The MIS-ST is a tool that informs *donors* on the training needs/demands of the NSS (national/regional) including information on external funding of training needs/demands. It allows for their comments and/or identification of training at their level related to statistical capacity requirements for their monitoring and evaluation of development results, reflecting the fact that government's statistical needs can be different from donor's. However, national data priorities should be acknowledged in the first instance.

### 3. Structure of the MIS-ST



AR = Assessment Report

*All levels have in principle decision making competence for their own needs. However in this framework only levels 1 and 2 prioritise needs and decide on demands within the system. Prioritisation will be made either by attributing priority points 1, 2 or 3 (at the production unit level) or by allocating (at NSI/production institution or NSS level) parts of the available institutional training budget in % to the different identified needs. For level three there might not always be the competence for decision making at the NSS level. In this case the INS provides comments and orientation. At level 4 specific information for each type of user is provided from the NSS, the user may provide comment/additional information or express own training needs. Training centres use the information to potentially adapt their curricula and to plan for future.*

The MIS-ST is developed **result orientated – with a bottom-up flow of information.**

Seven (7) Assessment Reports are successively produced for different levels. The content is generated by the database system which leads through the different steps of the decision making processes starting from the collection of information.

The whole process is accompanied by a detailed “didactical” handbook leading step by step through the processes, describing the workflow, including a description of the concept, the structure and the method – attracting attention to references to be integrated into the process:

The MIS-ST is henceforth basically composed of those three tools:

- a. The *assessment reports* are all information and decision making tools including the possibility/obligation for comments and motivation or identification of own/additional training needs.
- b. The *database*, basically considered as an input tool, generates the assessment reports and leads through the decision making process. The manual describes the MIS-ST system and provides instruction for the decision making process leads mainly through the workflow.
- c. The *handbook* refers specifically (where indicated) to other sources/references (action plans, NSDS, GDDS, regional programmes, national policies, PRSP, international obligations, donor financing , etc....) that need to be integrated into the process – those are implicitly part of the system too.

The system is ***motivation /activity led*** – this means that the statistical activity (survey, census, etc.) is the key reference to which the training need/demand is linked. The key element at the information level is the statistical production unit. Basic information is provided at that level. The production unit may be at the NSI or in any other data producing institution within the NSS. Private institutions may use the same functionalities of the system (database) if so requested.

*To not overload the input process the number of statistical activities for each unit – to identify the most important - and the number of training per activity should be **limited to three**. Entry for the number of years to plan is technically limited to three. It is assumed, that the number of detailed information (needed for the different assessment reports as defined currently) would overload the input phase into the database (or paper questionnaires) if more than 3 years of planning were to be considered (this should be discussed with countries and stakeholders).*

The MIS-ST is conceived so as to allow countries at any stage of development of their NSDS to use it, with or without NSDS. The MIS-ST may even allow contributing to actively structure the training plan linked to the NSDS or any other planning or development strategy put in place at the country level or at the regional level.

## **4. Workflow – an approach to the MIS-ST handbook**

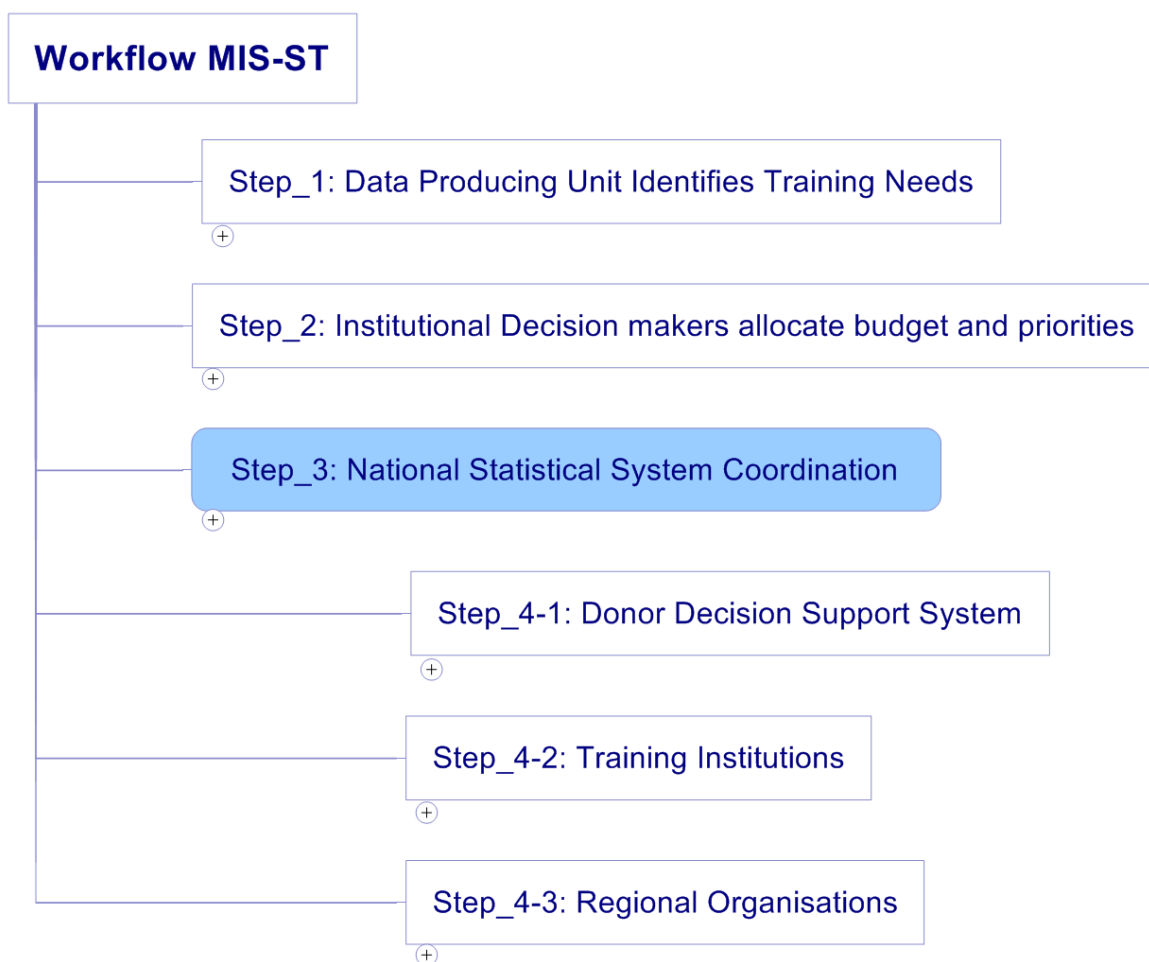
The MIS-ST handbook is the core part of the toolbox and provides step-by-step guidance for data collection, analysis, revision and decision making based on the compiled assessment reports for each step defined in the workflow. It provides guidance for the use of ASTRA, the MIS-ST supporting database, but goes beyond the database functionalities to assist the whole decision making process including specifically the analysis process of the ARs, leading for example to a consolidated training plan for institution 1 for year N or to a request for the next national training budget or to a funding request to a specific donor, etc.

The ASTRA Database (MS Access) assists the process mainly covering the input side leading to the different assessment reports as an output.

### **4.1. Overview**

- The MIS-ST is developed and designed in a bi-directional structure.
- The key deliverables of the MIS-ST are output-orientated: assessment reports for each level of the decision making process. The assessment-reports summarize and present information necessary for the decision maker, which includes
  - an overview of the statistical unit
  - a summary of the training needs
  - an option to prioritise the revealed needs and to include additional demand
- The input and data-collection is based on a ‘task-orientation’ logic of the respective statistical unit or institution. The main statistics actions of each statistical unit are identified and linked to the training needs of the unit.
- Each statistical unit or institution has to deliver additional relevant information like number of staff and the main statistical activities and responsibilities.
- An assessment report of the aggregated and prioritised training needs will be produced for each unit or institution as basis for analysis and decision making on the next hierarchical level.

- The workflow of data collection, analysis, revision and decision will be described in the provided handbook for the toolbox.
- The National Statistical System is the most important level for improved, effective and sustainable statistical capacity building to improve informed policy decision making. It should therefore play a key role in the assessment of national training demand.



*Bottom-up Workflow and key role of the National Statistical System Coordination*

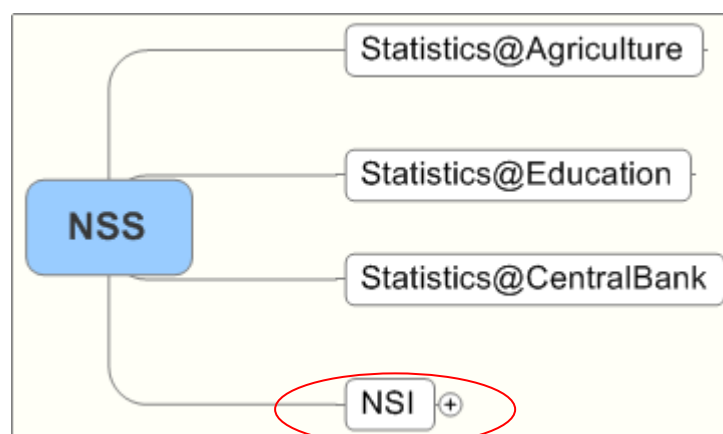
- All assessment reports (AR) are based on database output. The data entry of the information collected into the database ASTRA (Assessment of Statistical Training) will either be executed directly by the responsible statistical unit or will be collected on printed questionnaires and subsequently entered into the database.



- The handbook is an integral part of the toolbox and will provide guidance for data collection, analysis, revision and decision making based on the compiled assessment reports for each step defined in the workflow.
- As a Management Information System, the assessment reports provide the necessary information as a basis for sound decision making – not the decision as such. It should be used for further consultations with the respective units and institutions before coming to final decision.

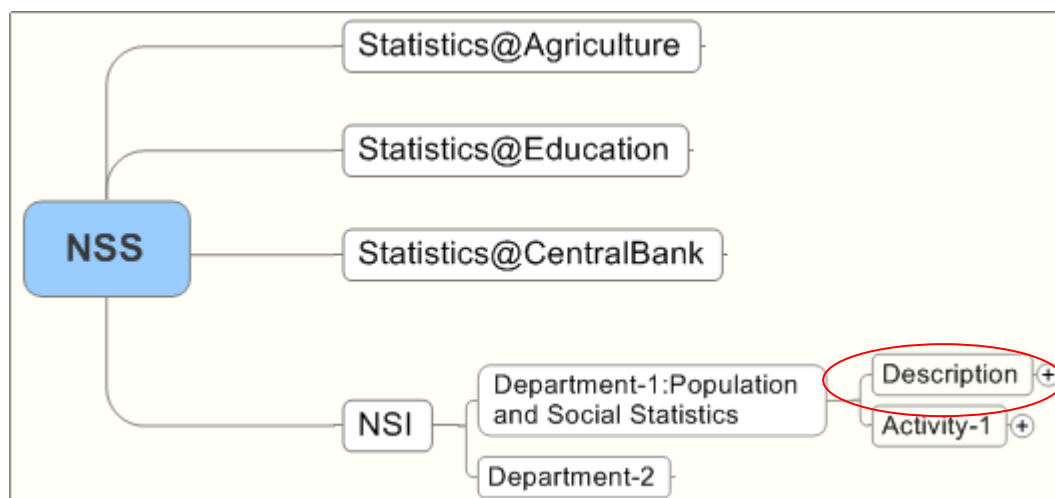
#### 4.2. Step\_1: Data Producing Unit Identifies Training Needs

- The Management Information System should provide an overview of the current state of each statistical unit, its strength and weaknesses, future activities and the training needs related to these activities.
- To cover the National Statistical System in general, statistical units in all data producing agencies of the NSS should deliver their specific needs for statistical training.

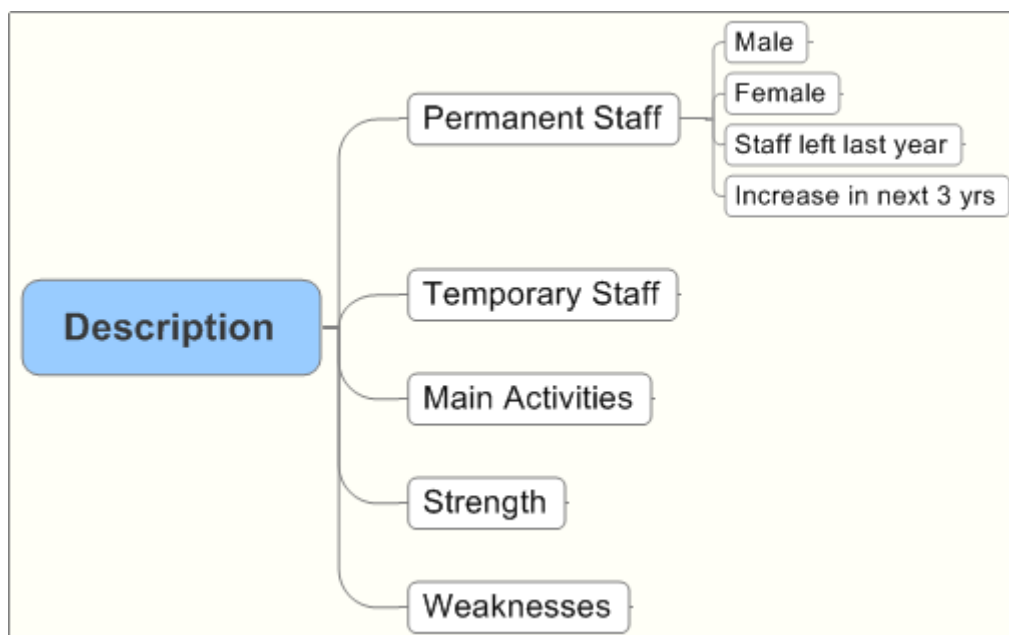


*The National Statistical Institute (NSI) as one of the main institutions of the NSS*

- In the first step, each data producing unit - e.g. a department of a NSI or the statistical unit of a ministry – provides details describing the unit and the main activities for the next years. The main activities of each unit will determine the training needs for each year reported.



- In particular, the number of staff of the statistical unit, the number of individuals who left the unit and an estimation of new staff required within the next three years will contribute to the assessment of mid- and long-term training needs. Long term strategies as defined in the NSDS should correspond on the operational level with mid and long term developments in human resources development and recruitment opportunities of statistical units.
- The description of each unit includes the main activities planned for the next 5 years which will provide text-based information of the mid-term capacity building needs for training suppliers in later aggregated assessment reports. Furthermore, the description of activities is - within the tool's motivation-led concept – the basis for definition of training needs linked to each activity.
- To provide a complete picture, a self-assessment of the unit's strengths and weaknesses is requested and should give important hints for the adjustment of training needs on the institutional level and furthermore indicators for necessary institutional change.



- The necessary data entry into the database ASTRA will follow a simple didactical user interface as shown in the following screenshots. The interface as such or the printed questionnaires as alternative methods of data collection will guide data producers through this process. Furthermore, the process will be illustrated and supported by the handbook.

### Data Input: Describe Data Producing Unit and Department

Select Country and Organization:

### ASTRA: Describe Data Producing Unit and Department

New Country
New Organization
Back to Switchboard

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Country:

Organization:

Name Department:

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|                                  |                                  |   |                                 |  |
|----------------------------------|----------------------------------|---|---------------------------------|--|
| Permanent Staff Members (Female) | <input type="text" value="33"/>  | How Many (Permanent Staff) Left Service Last 12 Months?           | <input type="text" value="10"/> | Are these Numbers?                     |
| Permanent Staff Members (Male)   | <input type="text" value="65"/>  | Number of Professional Staff increase envisaged for next 3 years: | <input type="text" value="7"/>  | Exact <input type="button" value="v"/> |
| Temporary Staff Members (Female) | <input type="text" value="120"/> |   |                                 |  |
| Temporary Staff Members (Male)   | <input type="text" value="320"/> |   |                                 |  |

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Description of Main Activities of Department for Next 3 years:

Use this Button below to enter or change explicit Activities in separate Form

Add New/Delete Activities

Description of Strengths of Department:

Description of Weaknesses of Department:

Census 2011  
HH Survey 2010

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Analytical Skills  
Sufficient Computer Hardware

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Lack of Skills for Projections and Forecasts

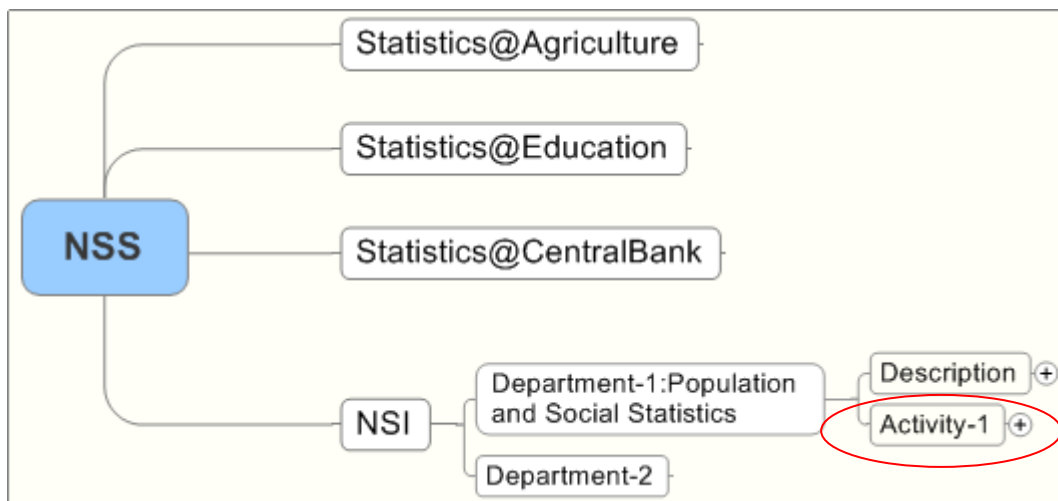
**Always watch and use the Navigation Buttons at Left Bottom of Form**

Click Select Button for Country and Organization and then add Departments. If Country does not exist, choose "New Country". If country appears, but Org. does not, choose "New Organization"

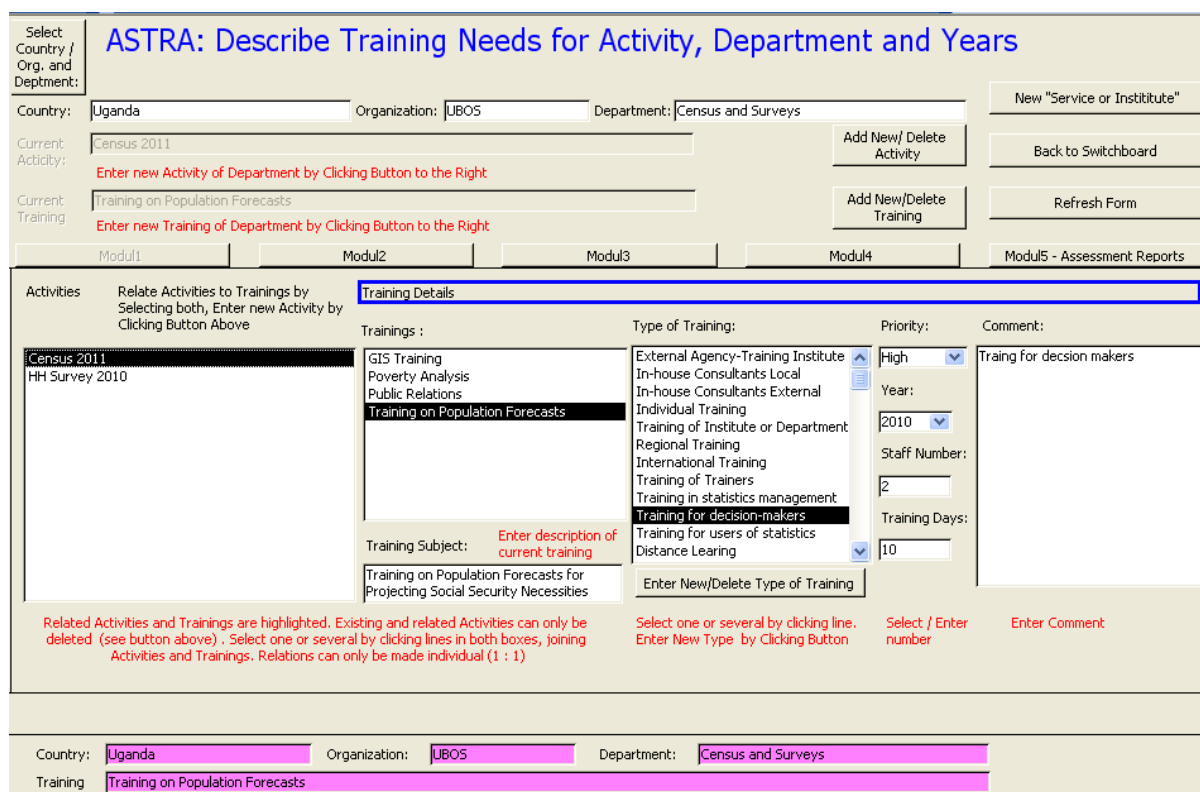
**How to use this Form**

On First Access to Form: You will enter last Record of File containing Training Institutes or Organizations offering Statistical Training. Move backwards to Change Information, Move Forward and Select Country, Organization and enter new Department and enter new general Information on Staff, Description of Activities, Strength and Weaknesses. This Form does not enter Activities. This is done after pressing the Button "Add New/Delete Activities"

- In addition to these descriptive details, each unit identifies the three main activities for each of the following three years and defines the three main training modules, which are necessary to carry out the department's duties. The activities and trainings are not pre-defined to cover a broad range of optional answers. Analysis will be necessary in later stages of the assessment report to aggregate the training needs of different departments. The number of years covered is limited to three. The number of activities and main trainings should be limited also to the three most important to reduce the level of complexity. It is unlikely that an increase will contribute significantly to a better assessment of training needs.



- To assess the estimated training needs of the respective statistical unit additional data to define the type and scope of necessary training will be collected. The number of persons to be trained each year, the number of training days, subject of training, whether it will be external or in-house training and the level of priority for the statistical unit in the specific year will be collected for each training.
- The data entry user interface of ASTRA allows a motivation led identification of training needs linked to the activities defined earlier, and collects further information from each statistical unit for the later compiled assessments.



**ASTRA: Describe Training Needs for Activity, Department and Years**

Select Country / Org. and Deptment: Uganda Organization: JUBOS Department: Census and Surveys

Current Activity: Census 2011  
 Enter new Activity of Department by Clicking Button to the Right

Current Training: Training on Population Forecasts  
 Enter new Training of Department by Clicking Button to the Right

Modul1 Modul2 Modul3 Modul4 Modul5 - Assessment Reports

Activities: Relate Activities to Trainings by Selecting both, Enter new Activity by Clicking Button Above

Training Details

| Activities     | Trainings :                      | Type of Training:                   | Priority:         | Comment:                   |
|----------------|----------------------------------|-------------------------------------|-------------------|----------------------------|
| Census 2011    | GIS Training                     | External Agency-Training Institute  | High              | Traing for decision makers |
| HH Survey 2010 | Poverty Analysis                 | In-house Consultants Local          | Year: 2010        |                            |
|                | Public Relations                 | In-house Consultants External       | Staff Number: 2   |                            |
|                | Training on Population Forecasts | Individual Training                 | Training Days: 10 |                            |
|                |                                  | Training of Institute or Department |                   |                            |
|                |                                  | Regional Training                   |                   |                            |
|                |                                  | International Training              |                   |                            |
|                |                                  | Training of Trainers                |                   |                            |
|                |                                  | Training in statistics management   |                   |                            |
|                |                                  | Training for decision-makers        |                   |                            |
|                |                                  | Training for users of statistics    |                   |                            |
|                |                                  | Distance Learning                   |                   |                            |

Training Subject: Enter description of current training

Training on Population Forecasts for Projecting Social Security Necessities

Related Activities and Trainings are highlighted. Existing and related Activities can only be deleted (see button above) . Select one or several by clicking lines in both boxes, joining Activities and Trainings. Relations can only be made individual (1 : 1)

Select one or several by clicking line. Enter New Type by Clicking Button

Select / Enter number

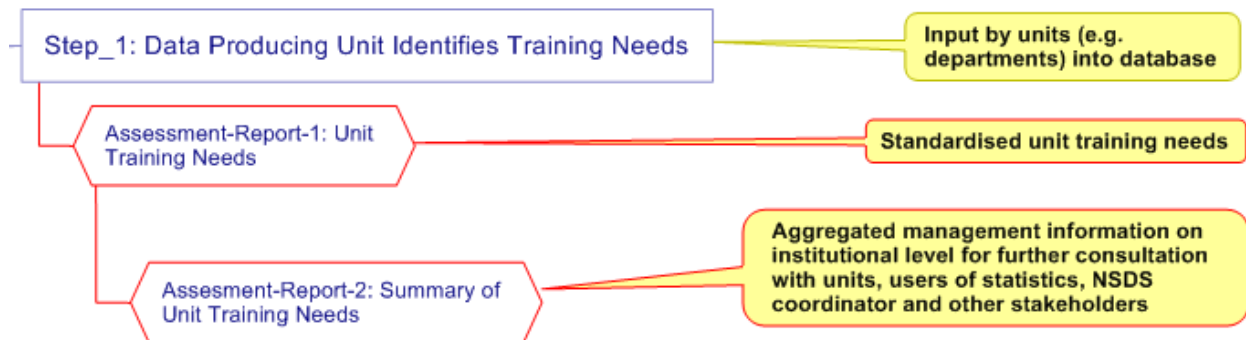
Enter Comment

Country: Uganda Organization: JUBOS Department: Census and Surveys

Training: Training on Population Forecasts

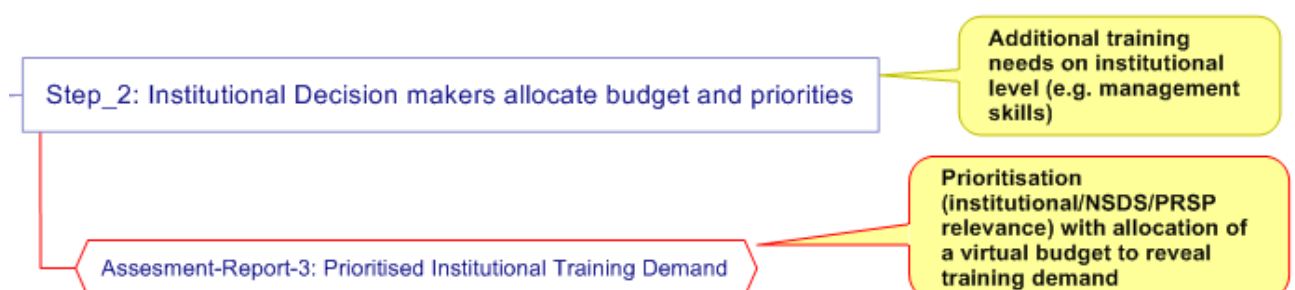
- All input data and descriptive text will be included in the database to be available for the relevant assessment reports.
- The database will produce the first-level Assessment-Report-1 (AR-1) of each statistical unit's training needs.
- The central unit of the respective statistical institution will be seen as a separate unit and the data collection of estimated training needs will follow the same structure as for all departments/units on this level.

- A second Assessment-Report-2 (AR-2) will provide a summary of aggregated training needs of all units. The report will be the basis for the assessment of the institution's training demand.



#### 4.3. Step\_2: Institutional Decision makers allocate budget and priorities

- The summarised training needs of all units and the central organisation will be the basis for the institution's training demand.
- On the institutional level, decision makers have to include additional training needs e.g. predetermined by the superior government department or ministry.
- In their responsibility for the budget, institutional decision makers have to prioritise all institutional training needs. Within the ASTRA database, decision makers are requested to allocate a percentage of the whole training budget – a **virtual budget** - for the aggregated training demand of the following three years.



Microsoft Access - [ASTRA-Modul2: Describe Institutional Training Priorities and Budget]

### ASTRA: Describe Institutional Training Priorities and Budget

Select Country and Organization: Country: Uganda Organization: UBOS

Institutional Information from Input of Departments. Changes need to be administered at appropriate Forms.

No Navigation Buttons in this Form

Click Select Button to enter Data for selected Country and Services or Institutes / Clear all Inputs (Toggle)

New "Service or Institute" Back to Switchboard Refresh Form

Modul1 Modul2 Modul3 Modul4 Modul5 - Assessment Reports

Filterfelder hierher ziehen

|                       |     | 2009  |           | 2010        |             | Y           |
|-----------------------|-----|---|-----------|-------------|-------------|-------------|
| TextDepartment:       | TNr | Training Name:                              | Priority: | BudgetShare | BudgetShare | BudgetShare |
|                       | 25  | GIS Training                                | Very High |             | 50          |             |
|                       | 26  | Poverty Analysis                            | High      | 15          |             |             |
|                       | 27  | Public Relations                            | Medium    |             |             | 50          |
| Central               | 8   | Project Management and Project Coordination | Very High | 10          |             |             |
|                       | 9   | Project Management and Project Coordination | Very High | 10          |             |             |
|                       | 10  | Project Management and Project Coordination | Medium    | 10          |             |             |
|                       | 11  | Quality Management                          | High      |             | 30          |             |
|                       | 12  | New Training1                               | Very High |             |             | 50          |
|                       | 13  | Project Management and Project Coordination | High      | 20          |             |             |
|                       | 15  | Project Management and Project Coordination | High      | 15          |             |             |
| <b>Gesamtergebnis</b> |     |   |           | <b>100</b>  | <b>90</b>   | <b>100</b>  |

How to use this Form: Move to Modify Budget Shares to distribute 100 Percentage points among the different Trainings within one year. Select "Show Overall Budget Shares" to Verify that Sum does not exceed 100 (%). Finish Data Input and Continue entering Institutional Comments on Training Demand, Budget and Long Term Staff Requirement by Clicking on Button "Institutional Comments...". You can start AR3 from there by pressing Button "Show Report". Move to Switch Board for Assessment Reports and use AR3 there to Export Tables to EXCEL.

Institutional Comments on Training, Budget and Staff Requirements

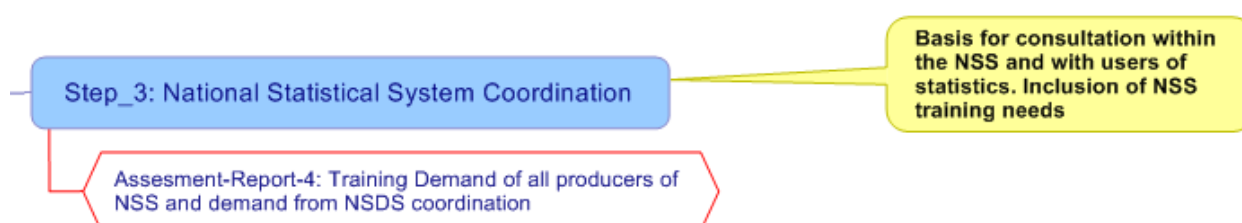
Filterfelder hierher ziehen

|                    |  | 2010                          |   | 2011                         |                     |
|--------------------|--|-------------------------------|---|------------------------------|---------------------|
| TextDepartment:    | Training Name:                                 | Comment:                      | Training Name:  | Comment:                     | Training Name:      |
| Census and Surveys | 24 GIS Training                                | This GIS Training is for Ext  | 23 Training on Populator Training for decision makers |                              | 27 Public Relations |
|                    | 26 Poverty Analysis                            | Training for Trainers at High | 25 GIS Training                                       | This GIS Training is for Ext | PR T                |
| Central            | 8 Project Management : Project Management (PM) |                               | 11 Quality Management                                 | Design of Dissemination St   | 12 New Training1    |

- Budget allocation seems to provide the best approximation to the reality of prioritisation.
- The result of this process will be the institution's prioritised demand for statistical training.
- The revealed demand has to be discussed with the responsible heads of the statistical unit's for revision or adjustment. The database will generate an aggregated and prioritised demand helpful for decision making, however, is should be seen as a decision support system rather than an automated decision. The manual as integral part of the toolbox will provide the necessary guidance in this process.
- The results and comments – as text – will be included in the generated Assessment-Report-3 (AR-3): Prioritised Institutional Training Demand

#### 4.4. Step\_3: National Statistical System Coordination

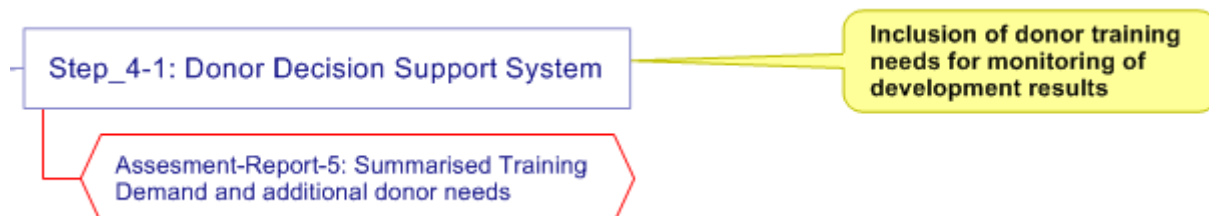
- The National Statistical System (NSS) is seen as the most appropriate level to assess the demand for statistical training.
- However, a general weakness is the lack of budget for training in most of the countries on this level and therefore limited influence.
- For the Coordination of the NSS, an assessment report with the aggregated demand of all statistical institutions will be generated. The input for this Report (AR-4) is a summary of all AR-3 s of the selected national organisations or Data Producing Units
- The Coordination has to include the generic NSS/NSDS training needs for the final Assesment-Report-4 (AR-4): Training Demand of all producers of NSS and demand from NSDS coordination. In particular the training needs for improved coordination, communication and dissemination and appropriate steps to eliminate data gaps are expected to be identified at that level.
- In particular for the identification of training needs derived from the national NSDS and NSS coordination training needs, an intensive discussion based on the assessment report with the relevant stakeholders of the NSS is expected. The handbook will place emphasis on the process orientation and several revisions are expected before a consensus is reached.





#### 4.5. Step\_4-1: Donor Decision Support System

- The assessment report provided on this level will summarise the national training demand and will help to identify the appropriate levels for intervention, e.g. increased support for in-house of external training. The input for this Report (AR-5) is completed AR-4 and a summary of all AR-3 s of the selected national organisations or Data Producing Units
- In addition, donors have to identify additional training needs to handle their own M&E system, in particular to link the M&E system with the national data and indicators generated in the National Statistical System.
- The result will be presented in a comprehensive overview in Assesment-Report-5 (AR-5): Summarised Training Demand and additional donor needs/ comments/ recommendations etc.



#### 4.6. Step\_4-2: Training Institutions

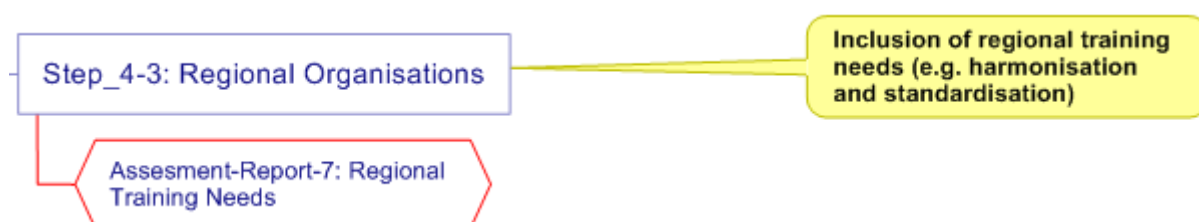
- Training institutes as the main providers of external training will receive a summary of the national training demand in Assessment-Report-6 (AR-6): External Training Needs and necessary mid- and long-term staff replacement. The input for this Report (AR-6) is like before a completed AR-4 and a summary of all AR-3 s of the selected national organisations or Data Producing Units.
- In particular, training institutes will get additional information and indicators which support decisions if and how curricula might be adjusted according to the mid- and long term needs articulated in the assessment report.

- Training institutions may better plan their mid-and long-term planning in accordance with the information provided and may see opportunities for short-term courses. Intensive discussions between NSI, NSS coordinators and training institutes are recommended to improve content, structure and scope of the training programmes.
- Training institutes may use the tool to identify training needs from private users too.

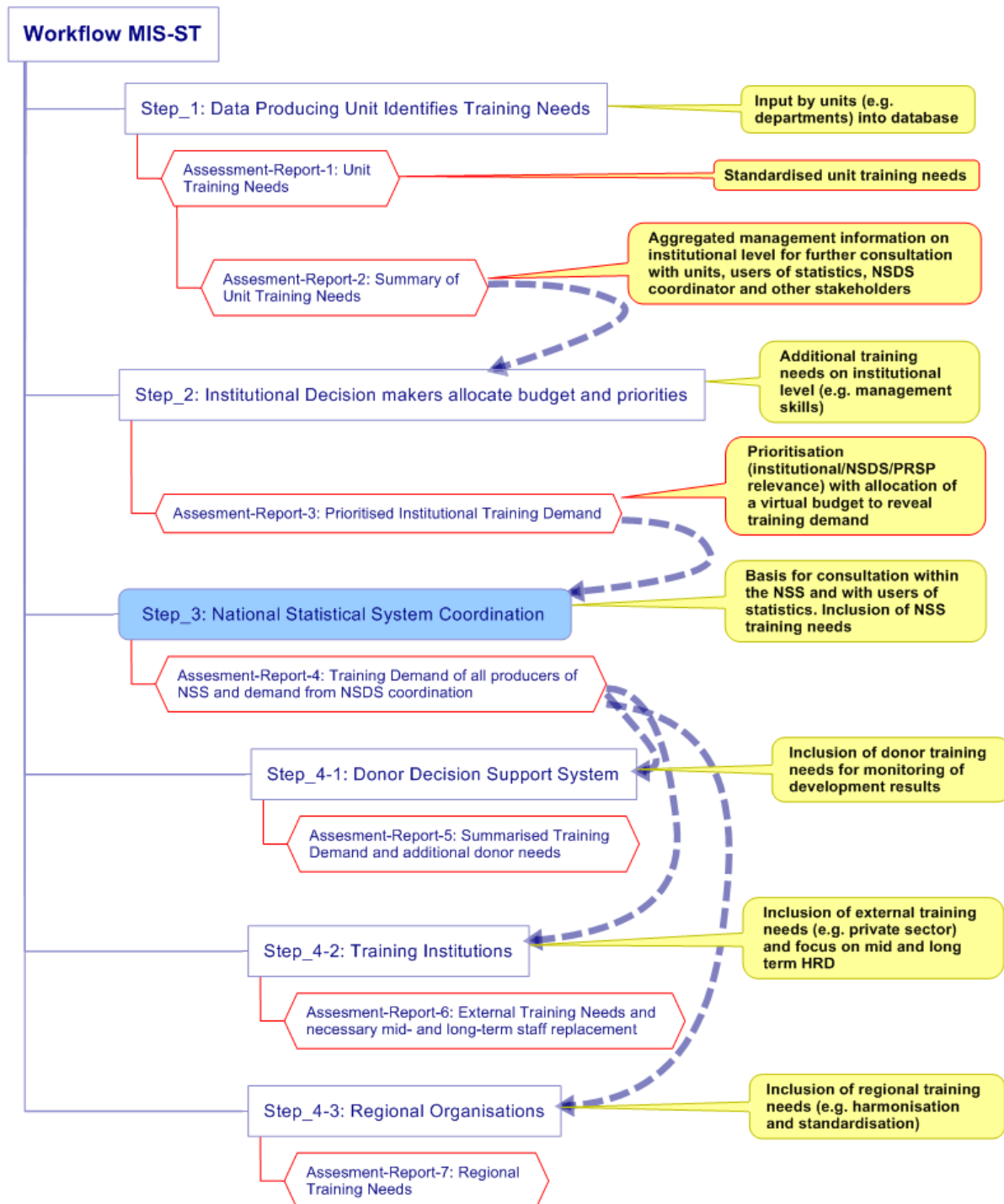


#### 4.7. Step\_4-3: Regional Organisations

- A final assessment report will be prepared for regional organisations: Assesment-Report-7 (AR-7): Regional Training Needs. The input for this Report (AR-6) is like before a completed AR-4 and a summary of all AR-3 s of the selected REGIOALI organisations or Data Producing Units.
- The report will provide decision support for regional organisations in charge for regional statistical trainings programmes (e.g. regional data harmonisation).
- The report will be a summary of national statistical training demands of the region concerned.
- Additional training requirements on the regional level have to be included in the report and discussed with the respective NSS coordinators (Step-3).



## Workflow



## 5. Assessment Reports (7)

Assessment Reports are generated for each level of the statistical system:

- Assessment Report 1: Unit Training Needs
- Assessment Report 2: Summary of Unit Training Needs
- Assessment Report 3: Prioritised Institutional Training Demand
- Assessment Report 4: Training Demand of all Producers of NSS and Demand from NSDS Coordination
- Assessment Report 5: Summarised Training Demand and Additional Donor Needs
- Assessment Report 6: External Training Needs and Necessary mid- and long-term Staff Replacement
- Assessment Report 7: Regional Training Needs

Structured information is provided on the respective units and their training needs.

The following examples on the first 3 Assessment Reports will give an overview of the generated assessment reports, which are the core output on each step of the workflow presented in 4.2.

Data provided in the examples are fictional and only for illustration.

### 5.1. Assessment Report 1: Unit Training Needs

The first report is based on the data entries and comments of data producing units (e.g. departments) and it's is repeated for all departments or units..

The first assessment report is a prototype for the 'Census and Surveys' department of UBOS.

#### 1. Data Producing Unit

*Country*      *Organization*      *Department*

**Uganda**              **UBOS**                      **Census and Surveys**

The Department has **98** permanent staff members. Of these **33** are female **65**are male.

The Department has **440** non-permanent staff members. Of these 120 are female **320**are male.

Last Year **10** professional Staff Members left the department for various reasons.

**7 New Professional Staff Members** would be needed for the next 3 years. Details of Staff requirements may have been indicated in Comments of Departments.

Main (Centralized) Activities for next 3 years (Subject Activities may be indicated in further below in Comments)

**Census 2011  
 HH Survey 2010**

Main Strengths of Department (More detailed Strengths may be indicated in further below in Comments)

**Analytical Skills  
 Sufficient Computer Hardware**

Main Weaknesses of Department (More detailed Weaknesses may be indicated in further below in Comments)

**Lack of Skills for Projections and Forecasts**

## 2. Training by Activity

| Activity:      | Year:            |                |                                  |                |                  |    |
|----------------|------------------|----------------|----------------------------------|----------------|------------------|----|
|                | 2009             |                | 2010                             |                | 2011             |    |
| Training Name: | T_NrV:           | Training Name: | T_NrV:                           | Training Name: | T_NrV:           |    |
| Census 2011    | GIS Training     | 24             | Training on Population Forecasts | 23             |                  |    |
| HH Survey 2010 | Poverty Analysis | 26             | GIS Training                     | 25             | Public Relations | 27 |

## 3. Training Details by Year

| TrN | Training Name:                   | TrainingSubject:  | Activity:      | Staff Nr | TrgDays | Type of Training:                 | Priority: | Year: |
|-----|----------------------------------|---|----------------|----------|---------|-----------------------------------|-----------|-------|
| 23  | Training on Population Forecasts | Training on Population Forecasts for Projecting Social Security Necessities | Census 2011    | 2        | 10      | Training for decision-makers      | High      | 2010  |
| 24  | GIS Training                     | GIS Training for Definition of Sampling Areas                               | Census 2011    | 30       | 5       | External Training for GIS Experts | Low       | 2009  |
| 25  | GIS Training                     | GIS Training for Definition of Sampling Areas                               | HH Survey 2010 | 12       | 4       | External Training for GIS Experts | Very High | 2010  |
| 26  | Poverty Analysis                 | Training on PA to explain Poverty Issues to the Public                      | HH Survey 2010 | 10       | 5       | Training of Trainers              | High      | 2009  |
| 27  | Public Relations                 | Training on Dissemination of Statistics                                     | HH Survey 2010 | 4        | 10      | (Leer)                            | Medium    | 2011  |

## 4. Training Comments

| <i>T_NrV:</i> | <i>Training Name:</i> | <i>Comment:</i>   |
|---------------|-----------------------|---|
| 24            | GIS Training          | This GIS Training is for External Experts from the Geographic Department of MinAgri |
| 23            | Population Forecasts  | Traing for decsion makers   |
| 25            | GIS Training          | This GIS Training is for External Experts from the Geographic Department of MinAgri |
| 26            | Poverty Analysis      | Training for Trainers at High Schools and Universities                              |
| 27            | Public Relations      | PR Training for Liaison to Media  |

### 5.2. Assessment Report 2: Summary of Unit Training Needs

A second Assesment-Report-2 (AR-2) will provide a summary of aggregated training needs of all units. The report will be the basis for the assessment of the institution's training demand.

The central unit of the respective statistical institution is seen as a separate unit and the data collection of estimated training needs will follow the same structure.

### 5.3. Assessment Report 3: Prioritised Institutional Training Demand

The assessment report will present a summary of institutional training needs as discussed in the workflow. Training needs of departments are evaluated by decision makers and the results will be included in the database. Furthermore decision makers have prioritised all institutional training needs with a virtual budget - for the aggregated training demand of the following three years. Annual budgets are allocated across departments summing up to less or equal 100%, Priorities are allocated by institutional decision makers taking user requests into account but deciding due to institutional criteria. Donor funding is not included into budget allocation)

#### 1. Data Producing Unit

*Country*      *Organization*

**Uganda**      **UBOS**

The **UBOS** as registered in the ASTRA-DB has **398** permanent Professional Staff Members. **162** of the permanent Staff Members are female **236** of the permanent Staff Members are male **UBOS** has **560** temporary Staff members hired for specific tasks. **240** of the temporary Staff

Members are female **320** of the temporary Staff Members are male.

**59** Professional Staff Members left the organization for various reasons last year

**19** New Professional Staff Members would be needed for the next 3 years in detail. Details of Staff requirements have been indicted by Departments. (Details see AR1 + AR2).

## 2. Budget Share of Trainings by Year

| TextDep<br>artment:      | TNr | Training Name:                                    | Priority:    | Year                |                     |                     |
|--------------------------|-----|---|--------------|---------------------|---------------------|---------------------|
|                          |     |   |              | 2009<br>BudgetShare | 2010<br>BudgetShare | 2011<br>BudgetShare |
| Census<br>and<br>Surveys | 23  | Training on Population<br>Forecasts               | High         |                     | 10                  |                     |
|                          | 24  | GIS Training                                      | Low          | 20                  |                     |                     |
| Central                  | 25  | GIS Training                                      | Very<br>High |                     | 50                  |                     |
|                          | 26  | Poverty Analysis                                  | High         | 15                  |                     |                     |
|                          | 27  | Public Relations                                  | Medium       |                     |                     | 50                  |
|                          | 8   | Project Management<br>and Project<br>Coordination | Very<br>High | 10                  |                     |                     |
|                          | 9   | Project Management<br>and Project<br>Coordination | Very<br>High | 10                  |                     |                     |
|                          | 10  | Project Management<br>and Project<br>Coordination | Medium       | 10                  |                     |                     |
|                          | 11  | Quality Management                                | High         |                     | 30                  |                     |
|                          | 12  | New Training1                                     | Very<br>High |                     |                     | 50                  |
|                          | 13  | Project Management<br>and Project<br>Coordination | High         | 20                  |                     |                     |
|                          | 15  | Project Management<br>and Project<br>Coordination | High         | 15                  |                     |                     |
| <b>Sum</b>               |     |   |              | <b>100</b>          | <b>90</b>           | <b>100</b>          |

### General Comments:

Training Demands on Central Level have to be satisfied with high priority; knowledge transfer to Departments has to be assured. Skills necessary for Project Management and Quality Control are extremely urgent. External supply might be necessary for this.

### Comments on Staff Demands:

Long Term Training Demand: 4 Economists for Business Tendency Surveys, 4 Economists/Data Analysts, 2 Statistics/ Economics Analyst, 4 Computer Specialist for Web Administration, 2 Economists for Harmonizing SNA together with SN

### 3 Comments on Trainings by Year

|                    |     | Year:                                       |   |      |                                  |   |     |                  |                                  |
|--------------------|-----|---|---|------|----------------------------------|---|-----|------------------|----------------------------------|
|                    |     | 2009  |   |      | 2010                             |   |     | 2011             |                                  |
| TextDepartment:    | TNr | Training Name:                              | Comment:  | T Nr | Training Name:                   | Comment:  | TNr | Training Name:   | Comment:                         |
| Census and Surveys | 24  | GIS Training                                | This GIS Training is for External Experts from the Geographic Department of MinAgri   | 23   | Training on Population Forecasts | Traing for decision makers  | 27  | Public Relations | PR Training for Liaison to Media |
| Central            | 26  | Poverty Analysis                            | Training for Trainers at High Schools and Universities  | 25   | GIS Training                     | This GIS Training is for External Experts from the Geographic Department of MinAgri   |     |                  |                                  |
|                    | 8   | Project Management and Project Coordination | Project Management (PM) has to be improved on Central Level: Execution of PM and Controlling can be transferred to Departments            | 11   | Quality Management               | Design of Dissemination Strategy by NSI Central Services. Execution of Dissemination Strategy can be transferred to Departments | 12  | New Training1    | More Comment New 1               |
|                    | 9   | Project Management and Project Coordination | Coaching of PM by consultant -> hands on task   |      |                                  |   |     |                  |                                  |
|                    | 10  | Project Management and Project Coordination | Coaching of PM by consultant -> hands on task   |      |                                  |   |     |                  |                                  |
|                    | 13  | Project Management and Project Coordination | Comments  |      |                                  |   |     |                  |                                  |
|                    | 15  | Project Management and Project Coordination | Design of Quality Management Strategy by NSI Central Services. Execution of Quality Management Strategy can be transferred to Departments |      |                                  |   |     |                  |                                  |



## 6. Description of ASTRA Database for Monitoring Statistical Capacity Building in Sub Saharan Africa's National Statistical Systems

### 6.1. Initial Remarks

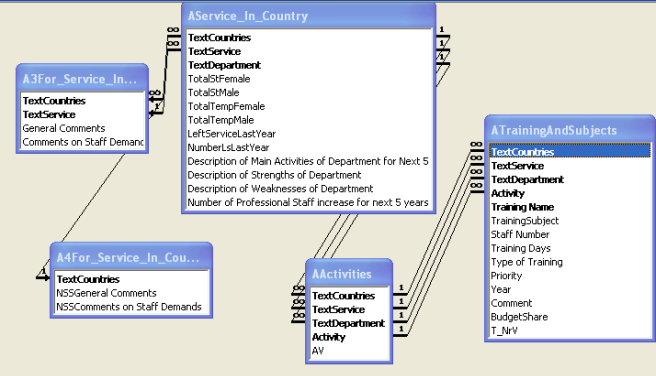
ASTRA is an ACCESS Database designed to support the MIS-ST Toolbox in order to increase evaluation capacity of Stakeholders, Training Institutes and other to monitor Statistical Capacity Building in Sub Saharan Africa.

The Database is functional and is filled with some dummy material in order to allow testing and handling of the database screens. The ASTRA concept follows the following scheme of steps for data input and related assessment reports. The green marked parts of the indicated steps is ready for input and produce and release Assessment Report and can be tested. This part should allow understanding the handling of the Database, how the steps are executed in the Database, how the Assessment Reports are produced and how they appear. The subsequent steps are comparatively simple, based on the selected and generated Reports AR3 from the Database for different DPUs of a country, asking for Comments by resource persons of the NSS (step 3 -> AR4), Donor demands (step 4-> AR5), Resource persons of regional Organizations (step 4 -> AR6) and Training Institutions (step 4-> AR7) **Stepwise**

### use of ASTRA

| Step   | Description   | Data Base   | Table  | DB Fields   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
|--|---|---|--|---|----------------|-----|-----------------------------|---------------------------|--|--|---|--|--|--|-----------------------------------|--|--------------------------------|--|--|--|---|--|
| 0  | Describe Data Producing Unit: Country, Organization and Department, then Activity and Training. | Describe Data Producing Unit (Step0 on Switchboard). Before starting a DPU has to be identified. This happens on 3 levels:<br>1. Country<br>2. Organization<br>3. Department<br>Then Activity and Training are identified | A4For_Service_In_Country,<br>A3For_Service_In_Country,<br>AService_In_Country, AActivities | <table border="1"> <tr> <td>Country (Text)</td> <td rowspan="3">DPU</td> </tr> <tr> <td>Name of Organization (Text)</td> </tr> <tr> <td>Department or Unit (Text)</td> </tr> <tr> <td>Description of Main Activities of Department for Next years (Text)</td> <td></td> </tr> <tr> <td>Description of Strengths of Department (Text)</td> <td></td> </tr> <tr> <td>Description of Weaknesses of Department (Text)</td> <td></td> </tr> <tr> <td>Number of Staff - Female (Number)</td> <td></td> </tr> <tr> <td>Number of Staff –Male (Number)</td> <td></td> </tr> <tr> <td>Σ Number of Professional Staff (No calculated)</td> <td></td> </tr> <tr> <td>Number of Staff left during last 12 Months (Number)</td> <td></td> </tr> </table> | Country (Text) | DPU | Name of Organization (Text) | Department or Unit (Text) | Description of Main Activities of Department for Next years (Text) |  | Description of Strengths of Department (Text) |  | Description of Weaknesses of Department (Text) |  | Number of Staff - Female (Number) |  | Number of Staff –Male (Number) |  | Σ Number of Professional Staff (No calculated) |  | Number of Staff left during last 12 Months (Number) |  |
| Country (Text)   | DPU   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Name of Organization (Text)  |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Department or Unit (Text)  |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Description of Main Activities of Department for Next years (Text) |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Description of Strengths of Department (Text)                      |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Description of Weaknesses of Department (Text)                     |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Number of Staff - Female (Number)                                  |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Number of Staff –Male (Number)                                     |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Σ Number of Professional Staff (No calculated)                     |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |
| Number of Staff left during last 12 Months (Number)                |   |   |  |   |                |     |                             |                           |  |  |   |  |  |  |                                   |  |                                |  |  |  |   |  |

| <b>Step</b>  | <b>Description</b>  | <b>Data Base</b>  | <b>Table</b>  | <b>DB Fields</b>  |
|--|---|---|---|---|
|  |   |   |   | Number of Professional Staff increase envisaged for next 3 years (Number) |
|  |   |   |   | Activity (Text)   |
|  |   |   |   | Training Name (Text)  |
| <b>1</b>   | Step1: Data Producing Unit (DPU) Identifies Training Needs              | Identify Training Needs (Step1 on Switchboard)                  | <b>A TrainingAndSubjects</b>  | Activity (Enter List / Select)  |
|  |   |   |   | Training Name (Enter List / Select)                                       |
|  |   |   |   | Training Subject (Text)   |
|  |   |   |   | Estimated No of persons to be trained (Number)                            |
|  |   |   |   | No of Training days Estimated (Number)                                    |
|  |   |   |   | Training Type (Enter List / Select)                                       |
|  |   |   |   | Priority (Select)   |
|  |   |   |   | Year (Select from List)   |
|  |   |   |   | Training Comment (Text)   |
| <b>Assessment-Report-1: Unit Training Needs and Assessment-Report-2: Summary of Unit Training Needs</b>  |   |   |   |   |
| <b>2</b>   | Step2: Institutional Decision makers allocate budget and priorities     | Prioritized Institutional Training Demand and Budget Allocation | <b>Data from previous Tables. Comments in A3For_Service_In_Country</b>        | Priorities (Select)   |
|  |   |   |   | Budget Shares (Select)  |
|  |   |   |   | Comments on Training Budget Allocation and Priorities (Text)              |
|  |   |   |   | Comments on Long Term Staff and Training Demands (Text)                   |
| <b>Assessment-Report-3: Prioritized Institutional Training Demand</b>  |   |   |   |   |
| <b>Subsequent steps based on the selected and generated Reports AR3 from the Database, asking for Comments by resource persons of the NSS (step 3 -&gt; AR4), Donor demands (step 4-&gt; AR5), Training Institutions (step 4 -&gt; AR6) and resource persons of regional Organizations (step 4-&gt; AR7)</b> |   |   |   |   |
| <b>3</b>   | Step3: National Statistical System Coordination Assesses Training Needs | NSS Describes National and Institutional Training Demand        | <b>Data from previous Tables. Comments stored in A3For_Service_In_Country</b> | NSS National Training Demand Assessment as NSS Comments (Text)            |
| <b>Assessment-Report-4: Training Demand of all producers of NSS and demand from NSDS coordination</b>  |   |   |   |   |

| Step   | Description   | Data Base                                 | Table  | DB Fields   |
|--|---|---|--|---|
| 4-1  | Step 4-1 Donor Decision Support System  | Donor Comments and Demand                 | Data from previous Tables. Comments stored in A4m1Selected | Donor Demand / Comments (Text)  |
| <b>Assesment-Report-5: Summarized Training Demand and Additional Donor Needs</b> |   |   |  |   |
| 4-2  | Step 4-2: Regional Organisations  | Training Institutions Supply and Comments |  | Regional Comments and Training Demand (Text)  |
| <b>Assesment-Report-6: Regional Training Needs</b>                               |   |   |  |   |
| 4-3  | Step 4-3: Training Institutions   | Regional Training Demand                  |  | Training Institutions Comments on Supply and Training Demands (Text)  |
| <b>Assesment-Report-7: External Training Institutions Needs and Comments</b>     |   |   |  |   |
| The Data Model   |  |   |  | <p>The Data Model shows all main tables and principal variables (DB Fields). The DM shows in brief that for each <b>DPU</b> (Data Producing Unit, e.g. Statistical Office, identified by country and name) and related <b>Departments</b>, there are multiple <b>Activities</b> and for each Activity there can be multiple Trainings. Trainings are thus always related to one (and only one) Activity and identified by <b>Training Names</b> and are attributed an internal Number for identification. Using the top down structure, you can delete all County related information, all Organization info, all Activity info and all Training info deleting the data sets in the appropriate files</p> |
|  |   |   |  |   |

ASTRA is a tool to analyze Training availability and demand. It does not mean that ASTRA has to be used stepwise, starting from Module 1 to 5. However elementary input of Training demand by Training Institutions or Organizations offering Statistical Trainings is needed to produce meaningful Assessment reports, at least of the type AR1, AR2 and AR3. On the other hand, it seems reasonable that donors or resource persons of regional Organizations state their demands and funding possibilities (AR4, AR5, AR6 and AR7) before any particular demand of Training Institutes has been recorded. It even could be useful and necessary for

national suppliers of statistical Training to know about funding and needs of regional entities or donors and request Reports of this type (AR4, AR5, AR6 and AR7) before they articulate their Training needs.

***It must be mentioned, that the Database in a developing stage and shortcomings might still occur. The current development stage allows testing all input schemes and practices. It generates all Assessment reports for further analysis as sample issues since no real data have been stored yet. Apart from technical problems, the central problem might be the comprehension of the Workflow by the user. ASTRA has to be tested by a variety of users to overcome any traps and hurdles for inexperienced users. Although largely self-explaining, the database handling presupposes basic computer skills as well as knowledge of MICROFT Office Tools and programs. It has been developed and tested for screen resolutions of 1280\*800 and higher. Higher resolution will improve readability, lower resolution is not recommended, as it will make orientation on input Forms more difficult, although functionality of ASTRA is fully assured also for lower screen resolutions. It is further recommended, that Toolbars like "Format" and "Form View" will be switched off to be able to view the Entry Screens and/or Reports in Full Size***

***System Menus in ACCESS (like delete, copy, paste etc.) sometimes are in German due to the language version used for Development, a different language version will display system commands in the language version***

***No permission and access rights management has been implemented yet but this will be possible if required***

A complete description of the structure and the use of the ASTRA-Database is provided in the MIS-ST handbook.

## Part C: Proposals for best practice framework implementation

The terms of references request the consultant to provide a generic framework (spreadsheets, documentation, etc.) for a budget and a workplan / timetable to implement the management tool in a country, as well as a worked example. The following proposal goes beyond an individual country implementation but intends to draw the strategic concept for implementation in the African continent.

The tool implementation should be guided by the three main principles already mentioned: **simplicity, ownership and monitoring**.

**Simplicity** and user-friendliness has been a guiding principle of the conception and developing phase. However if this objective is reached will only be known once it comes into practice by the intended users. The ASTRA database as any standard software application may look a bit complex at the beginning but in the development process has been simplified several times including its outputs- the assessment reports.

**Ownership** is a keyword to make the tool Eurostat is proposing to the countries as a contribution to their management capacity building a success. A sound strategy for implementation of the tool is crucial to pass over responsibility of the tool to the African Statistical Actors to anchor the tool in the environment it is designated to. This proposal suggests that Eurostat initiates a kind of a steering group composed of appropriate institutions at the regional and/or sub-regional levels and a small group of countries (NSIs, training institutions other producers ?) which first go through the pilot phase and then take over responsibility (including the definition of an appropriate implementation strategy) for the implementation phase and the implementation with the countries that wish to implement the MIS-ST (including training, assistance if needed). In terms of ownership the best way would be to consider passing over ownership of the MIS-ST (once its development finalised) to an African body active in statistical capacity building who will then also take over responsibility for **monitoring** the tool and its results (aggregation of information, distribution of information, analysis at the highest level of aggregation, rhythm of update of the aggregated information, etc.). This body will be surrounded at the implementation level by the members of the initial steering group (regional organisations and some countries).

Ownership is also the reason why this proposal does not present a complete set up for implementing the tool – in the form of a worked out project proposal. The definition of the implementation shall be left over to the concerned represented by the-steering group. Only the overall strategy for these phases is set out in this part C of the study.

To start up implementing the MIS-ST two phases are to be considered: the pilot phase and the implementation phase.

## **1. The pilot phase**

This phase is an inevitable prerequisite to ensure a successful implementation of a fully operational and relevant MIS-ST toolbox. The pilot phase should be constituted of two key steps that would preferably be carried out sequentially.

### *1<sup>st</sup> step – The test*

To ensure a proper implementation, such a tool is to be tested by those who will use it. This test phase is essential to identify and fix potential infantile shortcomings or “bugs” not yet detected by those who designed and developed the tool.

This test phase should be anchored both at the national and sub-regional levels. The term “anchored” is important here and should not be minimized. To this aim, the above mentioned steering team should carefully be set up with national and sub-regional representatives. It should be kept in mind that this team will then also play a key role for the implementation of the MIS-ST and its tools.

At national level, at least two countries (one French-speaking and one English-speaking) that expressed interest and motivation in the tool implementation within their NSI should be identified. At sub-regional level, Afristat and SADC should may be involved in this test phase. Together with Eurostat, these national and sub-regional actors would make up the Steering Body that would also guide the tool implementation at the continent level for those countries who wish to implement it. This body is a key player for a successful pilot phase and the final implementation.

African Statistical Training Centers are strategic actors in this sphere. They should be associated to this test phase and be able to comment on the tool output of a concrete case. If

they are considered relevant and feasible by the steering body, these comments could then be integrated in a revised tool.

Obviously, the consultant may need to be associated to this test phase. They should be mainly available to accompany the first users when they test the tool. They may be should also participate to steering body discussions to properly grasp comments and wishes and provide input on the technical possibilities and limitations of the tool.

### *2<sup>nd</sup> step - The pilot phase as such*

Once the tool is considered as fully operational and free of “bugs”, it could be implemented in the steering body members and potentially in some other countries, preferably “difficult” countries, i.e. countries without training needs identification process, facing lack of human and technical resources, probably with low conviction vis-à-vis the utility of the tool. In the pilot phase implementing test countries shall benefit from the help of the steering body members which went through the test phase and shall themselves be part of the pilot phase too.

The advantage to associate more countries at this stage is to assess more precisely the time for and the type of training support that would be needed for countries to properly integrate the tool in their system. Solution to constraints that could hamper the tool implementation could be found before its implementation at a larger level.

Selected donors , regional organisations, other NSS producers and STC shall also contribute to the pilot phase to contribute with their experience of the tool.

This pilot phase (both steps) is tentatively planned in this proposal for a duration of one year. The implementation at the continent level should not start before a proper conclusion of the pilot phase.

## **2. The implementation phase**

During the pilot phase one may consider starting sensitisation actions with a large geographical coverage concerning the utility of the tool. It is up to the steering group to decide on the best way of acceding to the intended users. May be existing conferences, meetings etc in the framework of statistical capacity initiatives may be used to introduce the

MIS-ST and to sensitise first the decision making levels of NSI/NSS. The key word for the success of this phase is sensitization. The steering body will be the key actor of this phase.

Once the countries are ready to start with the use of the tool, the concrete implementation can start. Given the relative simplicity of the tool and considering the handbook as a significant and powerful learning instrument, the tool implementation should not be time and resources consuming for the steering group and the potential funding agent. Nevertheless, some assistance may be needed. One could consider sub-regional seminars, country visits carried out by steering body member, face-to-face contact with the countries to understand their constraints and probably a kind of helpdesk assistance during the first run of the exercise may be considered. The experience and the lessons learned from the pilot phase will be certainly of use here.

Internally, countries will have to designate a person or a team that will be in charge of the implementation. They should be free to nominate the “training tool coordinator” but preferably this person should belong to the training department or administrative department (Human resources). He/She should have a global knowledge of the functioning of the NSI, the statistical operations. He/She should have some experience in training programming and training plan management.



### 3. Activities and calendar

| Activity/Month  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|---|---|---|---|---|---|---|---|---|----|----|----|
| <b>Pilot phase</b>  |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>Step 1 - Test</b>  |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Steering body set up  | ■ |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Test preparation with the steering body                           | ■ |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Test at steering body member level                                |   | ■ | ■ | ■ |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Discussion with other actors (STC, donors) on test outputs        |   |   |   |   | ■ |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Steering body meeting with InWEnt experts                         |   |   |   |   |   | ■ |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Adaptation of the MIS-ST  |   |   |   |   |   |   | ■ | ■ |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>Step 2 - Pilot</b>   |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Implementation continuation with potentially revised MIS-ST       |   |   |   |   | ■ | ■ | ■ | ■ | ■ | ■  | ■  | ■  |   |   |   |   |   |   |   |   |   |    |    |    |
| Identification and implementation in 2 additional pilot countries |   |   |   |   | ■ | ■ | ■ | ■ | ■ | ■  | ■  | ■  |   |   |   |   |   |   |   |   |   |    |    |    |
| Support to the implementation (remote help desk, field visit)     |   |   |   |   | ■ | ■ | ■ | ■ | ■ | ■  | ■  | ■  |   |   |   |   |   |   |   |   |   |    |    |    |
| Exchange (seminar) on pilot experience                            |   |   |   |   |   |   |   |   |   |    |    |    | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■  | ■  | ■  |
| <b>Assessment of the pilot phase</b>                              |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Best practice and lessons learned gathering                       |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>Implementation phase</b>                                       |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Sensitization (workshops, field visits, forum ...)                |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |
| Extended implementation   |   |   |   |   |   |   |   |   |   |    |    |    |   |   |   |   |   |   |   |   |   |    |    |    |

## 4. Budget estimation

### Budget estimation in Euro

| Activity/Month  | Travel | Unit  | Total Travel | Per diem | Unit | Total Per Diem | Fees | Unit | Total fees | Grand total |
|---|--------|-------|--------------|----------|------|----------------|------|------|------------|-------------|
| <b>Pilot phase</b>  |        |       |              |          |      |                |      |      |            |             |
| <b>Step 1 - Test</b>  |        |       |              |          |      |                |      |      |            |             |
| Steering body set up  |        |       |              |          |      |                |      |      |            |             |
| Test preparation with the steering body                           | 7      | 1 500 | 10 500       | 35       | 180  | 6 300          | 15   | 550  | 8 250      | 25 050      |
| Test at steering body member level                                |        |       |              |          |      |                |      |      |            |             |
| Discussion with other actors (STC, donors) on test outputs        |        |       |              |          |      |                |      |      |            |             |
| Steering body meeting with InWEnt experts                         | 7      | 1 500 | 10 500       | 35       | 180  | 6 300          | 15   | 550  | 8 250      | 25 050      |
| Adaptation of the MIS-ST  |        |       |              |          |      |                | 20   | 550  | 11 000     | 11 000      |
| <b>Step 2 - Pilot</b>   |        |       |              |          |      |                |      |      |            |             |
| Implementation continuation with potentially revised MIS-ST       |        |       |              |          |      |                |      |      |            |             |
| Identification and implementation in 2 additional pilot countries |        |       |              |          |      |                |      |      |            |             |
| Support to the implementation (remote help desk, field visit)     |        |       |              |          |      |                |      |      |            |             |
| Exchange (seminar) on pilot experience                            | 9      | 1 500 | 13 500       | 45       | 180  | 8 100          |      |      |            | 21 600      |
| Adapation of MIS-ST   |        |       |              |          |      |                | 15   | 550  | 8 250      | 8 250       |
| <b>Assessment of the pilot phase</b>                              |        |       |              |          |      |                |      |      |            |             |
| Best practice and lessons learned gathering                       |        |       |              |          |      |                |      |      |            |             |
| <b>Implementation phase</b>                                       |        |       |              |          |      |                |      |      |            |             |
| Sensitization (workshops, field visits, forum ...)                | 55     | 1 500 | 82 500       | 275      | 180  | 49 500         |      |      |            | 132 000     |
| Extended implementation   |        |       |              |          |      |                |      |      |            |             |
|   |        |       |              |          |      |                |      |      |            | 222 950     |

Assumption : Eurostat is coordinating the whole process.  
 Therefore, except in the test phase, no outsourcing is foreseen.  
 If the process is guided by another African body may be  
 additional funding might be needed

## ***Conclusions and recommendations***

NSDS or similar are under preparation in most of the countries, one can consider that implementation is still at its beginnings. Donors seem to be very ready to finance the implementation of reliable NSDS – but even then not in all countries the problems are solved by the donor commitment. A well prepared NSDS (and similar strategic plans) are the key for success in Statistical Capacity Building and that is even more true as they guarantee alignment with country development policies, priorities and needs, they allow easy donor coordination at the country level, ownership by the producers and users, - but their final success is not independent from the overall developing framework.

For Statistical Capacity Building in general the effectiveness of statistical training and of support to statistical training and its effects on statistical capacity building is not an isolated matter. It depends also on the factors that influence the effectiveness of the capacity building initiatives and the global development of the countries.

In this context, the development of a management system is meant first to support and second to contribute to the global Statistical Capacity Building processes. To support because it is supposed to be used as an assessment and monitoring tool by the NSS for a proper identification of training needs and demands – but also as an information tool for training providers, regional organisations and donors. To contribute because the system is designed aiming at building sustainable capacities within the NSS to enable the statistical institutions to maintain the newly build linkages on a regular basis.

It is necessary to support NSI to better define and more systematically monitor their training needs and their demands in accordance with their development strategies and to help STC to better adapt to the needs and demands of their major clients. If the training needs of the NSS are sufficiently known or not, seems to be a question of interpretation depending on the perspective taken (institution). What seems to be sure is that training needs of NSS are not evaluated and monitored on a systematic basis and that systematic collaboration/exchange between NSS and the training centres is not granted.

That is the framework which the MIS-ST addresses. It is a contribution to management capacity building within the NSS. It addresses a very specific matter the one of providing the NSI with a tool to increase their capacity to monitor their training needs and demands. Once

training needs and demands are better defined and monitored all concerned actors may adapt to the information according to their specific role in the set-up of capacity building. STC to adapt curricula/courses to national demands, regional organizations to better coordinate with national levels – synergy effects, donors to coordinate among them and to focus financing according to national realities and needs, etc...

The Management Information System on Statistical Training (MIS-ST) is at once an instrument and a component of the statistical capacity building process in Africa.

An **instrument** as it aims at contributing to a proper identification of statistical training needs and to the convergence of those needs and the statistical training supply. It could also help in improving the impact of donors' interventions as those would be well aware of the situation and would have a complete picture of the demand and supply side.

A **component** as it was conceived and designed to assist the NSI with a management tool guiding them to the systematic identification and decision making process of their training needs and translating those needs into relevant demands. The process is well embedded in the capacity building environment of the NSS and their partners. The handbook delivered with this final report is the key element of this management process.

The **communication** potentialities of the MIS-ST are huge. The NSI would be placed at the centre of a coordinated and integrated system gathering all actors involved in the statistical capacity building. The multifaceted set-up and the framework around the development of statistical systems in Africa are encouraging but still need a strong focusing of all implied actors.

It is important here to repeat that, at this stage, the MIS-ST has not yet been tested. Therefore the outputs delivered with this final report can not be considered as totally finished tools. They need to go to test and pilot phases to find their final form and structure.

## References

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## Appendix

- **Handbook**
- **Astra database – version 1**
- **Introductory document “At a Glance: The Management Information System on Statistical Training – MIS-ST”**