Review of the Different Agricultural Statistical Systems

February 2004

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Acronyms used

AEA  Agricultural Employers’ Association
AGRA (Not an acronym, but a company name)
AIDS  Acquired Immune Deficiency Syndrome
BoN  Bank of Namibia
CBS  Central Bureau of Statistics
CPI  Consumer Price Index
DoP  Directorate of Planning
EMU  Emergency Management Unit
FAN  Farm Assured Namibian Meat Scheme
FAO  Food and Agriculture Organisation
FHES  Farm-Household Economics Survey
FIVIMS  Food Insecurity and Vulnerability Information and Mapping Systems
FSRE  Farm Systems Research and Extension Programme
GDDS  General Data Dissemination System of the International Monetary Fund
GDP  Gross Domestic Product
GIS  Geographic Information System
HIV  Human Immunodeficiency Virus
IPPR  Institute for Public Policy Research
MAWRD  Ministry of Water and Rural Development
MEATCO  Meat Corporation of Namibia
MET  Ministry of Environment and Tourism
MHSS  Ministry of Health and Social Services
MTI  Ministry of Trade and Industry
MWACW  Ministry of Women Affairs and Child Welfare
MWTC  Ministry of Works, Transport and Communication
NAU  Namibia Agriculture Union
NDC  National Development Corporation
NDP2  Second National Development Plan
NEPRU  Namibian Economic Policy Research Unit
NNFU  Namibia National Farmers Union
NOLIDEP  Northern Livestock Development Programme
NPC  National Planning Commission
OPM  Office of the Prime Minister
REMP  Research and Extension Management Programme
RSA  Republic of South Africa
SARDEP  Sustainable Animal Range Development Project
UN  United Nations
WFP  World Food Programme
Introduction

Background

The state’s functions of collecting, processing, analysing and providing agricultural statistics are primarily vested in the Central Bureau of Statistics (CBS) of the National Planning Commission and the Directorate of Planning (DoP) of the Ministry of Agriculture, Water and Rural Development (MAWRD). The CBS has the responsibility for primary data collection activities that are collecting data directly from persons, households or establishments during censuses and surveys. The DoP is the main user and interpreter of agricultural data within the public service. The Directorate takes responsibility for the technical analysis of food and agricultural statistical data, and it is responsible for smaller, more specialised data collection activities to meet immediate information needs.

Apart from the public service, parastatals, agricultural boards, agricultural unions, private sector organisations and international agencies are collecting and publishing agricultural statistics.

A review of the different agricultural statistical systems in Namibia was required by the DoP of the MAWRD in preparation for an Agricultural Statistics Forum. This review is presented in this report.

Objectives

The review of the different agricultural statistical systems in Namibia had the following objectives:

- Recording the different agricultural statistical systems or producers of agricultural statistics in Namibia and listing agricultural statistics available in the MAWRD and other organisations and agencies;
- identifying the users of agricultural statistics in Namibia and assessing the usefulness and impact of agricultural statistics, including an assessment in respect of the Second National Development Plan (NDP2);
- identifying gaps and duplications in the agricultural statistics and developing proposals for streamlining the collection and exchange of agricultural statistical information, and developing a related future strategy;
- reviewing the publications of the Statistics and Early Warning Unit within the Directorate of Planning (DoP) of the MAWRD and making recommendations on improvements, usefulness and data gaps.

Separate consultants, who cooperated with one another, were hired to fulfil (a) the first three objectives and (b) the last objective. Full Terms of Reference of the consultants have been included in Annex A.

While the first three objectives were aimed at the entire field of agricultural statistics, including various components of the MAWRD, parastatals and the private sector, the last objective concentrated on the publications of the DoP. This difference in the scope of the study has been reflected in this report, dividing it into two separate sections.
Section 1: Review of agricultural statistical systems

1 Agricultural statistics and its producers

1.1 Introduction

‘Agricultural statistics’ is an ambiguous term, especially as the boundaries between statistics, research and long-term data collection are debatable. In the context of the review, periodically collected and processed quantitative information was regarded as ‘statistics’. Long-term repetitive data collection for specific projects was, though, excluded in most instances. An attempt was still made to record sources of data or quantitative information, which might be relevant for the users of statistics.

Three paragraphs of the terms of reference (see Annex A) required agricultural statistical systems, agricultural statistics and the producers of these statistics to be listed. As it was found that these were closely interlinked, the systems, statistics and producers are reported on together in this subsection of the report.

1.2 Production of agricultural statistics

A large quantity of agricultural statistics were collected and, in general, reported in Namibia. Most of these statistics were produced by experts in the specific fields or specialties, or by the organisations directly responsible for the specific agricultural sector. The Agronomic Board, for example, mainly published statistics on controlled crops produced by farmers and institutions registered with them.

This demarcation of responsibilities, which seemed to have developed over many years, had the great advantage that the producers of statistics had expert knowledge of the particular component of agricultural statistics. They had direct responsibilities towards the users of the statistics, contributing towards the relevance, reliability and timeliness of the statistics.

A disadvantage of such a ‘distributed’ statistical system was that potential users were often not aware of available statistics which they did not normally work with. This review might help to lessen this problem. Although a distributed approach towards the production of agricultural statistics might lead to duplications of statistics, this seemed to be a minor problem.

The above-mentioned advantages of the manner in which agricultural statistics were produced seemed to outweigh the disadvantages by far. Steps should, though, be taken to establish mechanisms for users to locate and access all available statistics. Such a mechanism would also contribute towards preventing duplications of statistics.

Attention also needed to be given to standardised terminology and disaggregation where relevant. Mahangu and sorghum were, for example, reported on separately in the Annual Agricultural Survey, but combined in the Agricultural Statistics Bulletin, while the Farm-Household Economics Survey in some instances used the term millet instead of mahangu.

Other important sources of agricultural data, which were not considered as ‘statistics’ in the context of the review, were the Directorate of Research and Training and the Hydrology Divisions. The MAWRD Directorate of Research and Training had several research divisions and subdivisions, which had collected large quantities of valuable data over many years. Many articles were published locally and internationally. Data was collected and research done on Namibia’s water resources in the Department of Water Affairs, but this important resource seemed to be under-utilised. Improving access to the research products and data available in the MAWRD would provide a valuable source of information to a wider group of users of agricultural information, and allow them to benefit from the excellent work done in the Ministry.

1.3 Overview

Agricultural statistics were mainly produced by government ministries, agricultural boards, and private or parastatal organizations.
Section 1: Review of agricultural statistical systems

Within government, various components of the MAWRD and the Central Bureau of Statistics of the National Planning Commission were the main producers of agricultural statistics. Other ministries which produced agricultural or related statistics included the Ministry of Environment and Tourism and the Ministry of Works, Transport and Communication.

The Namibian Agronomic Board, the Meat Board of Namibia and the Karakul Board of Namibia were important producers of agricultural statistics.

Apart from the ministries and boards, important sources of statistics were Meateco, Agra, the Namibia Development Corporation, farmers' unions and the Bank of Namibia.

Some international sources of agricultural and economic statistics were utilised by different users. Such utilisation could range from occasional glimpses into specific websites to daily intensive use. It was not possible within the scope of the review to make a well-informed selection of the most important sources for inclusion in the list. The external statistical systems listed in the annex should be seen as indicative of the kind of sources consulted by some Namibian users.

Annex B lists the agricultural statistical systems and producers, giving a brief overview of the agricultural statistics provided.

An index of agricultural statistics was compiled from statistical reports obtained during the review, and attached as Annex C. In general, data and information not published periodically were excluded. The limited scope and time-frame of the review might have resulted in the omission of some statistics from the index. The MAWRD should consider extending and maintaining the index as an instrument for locating specific agricultural statistics. It might also be advisable to extend the index in scope, for example, by adding research articles and sources of research data. Providing specific information on where each source could be obtained from, or where it could be consulted, would also enhance the value of the index.

2 Users of agricultural statistics

2.1 Introduction

The key role of agriculture in assuring the food security of Namibia, and its important role in the Namibian economy, resulted in a large number of diverse institutions and individuals requiring agricultural statistics.

In general, producers of agricultural statistics were also users of these statistics. This was particularly the case where statistics were collected, produced or reported for fulfilling the producer’s functions. For example, the Agronomic Board mainly produced statistics required for its own operations and for providing information to their members.

The diversity of the list of users of agricultural statistics also showed the inter-dependency between users and producers of statistics. While the MAWRD and other role players in agriculture provided statistics to users in other sectors, these providers themselves required information from sectors outside agriculture. This exchange of information highlighted the necessity of good information channels and effective mechanisms for locating available statistics.

2.2 Issues concerning the users

Most of the issues concerning users have been addressed under 6 on page 13. At this point, only issues pertaining directly to meeting users' information needs have been mentioned.

One key user group, or group of potential users, the agricultural producers (farmers) seemed to have inadequate access to agricultural statistics, and/or did not fully grasp the value these statistics held for them for improving the output of their agricultural operations. Many commercial and communal farmers might not have been aware of the available statistics and related services or were not in a position to get hold of the information due to a lack of a central point providing statistics.

In communal areas, the extension service seemed to inadequately fulfilling its role in providing statistical information to farmers. This might have been caused by a lack of statistics available to the extension workers, inadequate competencies of the extension workers, excessive farmer to extension worker ratios, availability of transport, and/or poor performance of some extension workers.
Timeliness, relevance, reliability and accessibility of the statistics were mentioned by a number of potential users as constraining the utilisation of statistics in several areas. The utilisation of statistics would also be enhanced significantly if potential users had better possibilities of establishing what statistics were available.

2.3 Overview

A list of users of agricultural statistics has been compiled in Annex D. Indications have been given of the purposes for which the users required the statistics, or which statistics they were using.

The main groups of users included the MAWRD, which required the statistics for the efficient management of the ministry, and in the course of providing diverse services to other institutions, organisations and individuals. Agricultural researchers within and outside the Ministry were main statistics users.

The farmers or agricultural producers were key users of agricultural statistics, although their utilisation of statistics should have been enhanced as indicated above. Agricultural boards and farmers’ unions were major users of statistics, which were of essential importance to them for fulfilling their roles.

Economic researchers used agricultural statistics as was to be expected considering the important position of agriculture in the Namibian economy.

International agencies, donors and donor-funded projects also depended on agricultural statistics.

Other important users of the statistics included environmentalists, other government ministries, Namwater and municipalities, financial institutions, commerce and the public at large.

3 Agricultural Statistics for NDP2

3.1 Introduction

Targets to be achieved during the plan period and performance indicators which would be used to monitor and evaluate the planned achievements were specified in the Second National Development Plan. These targets and indicators have been listed in Annex E together with available statistics or sources of data which could provide the particular indicators.

The NDP2 targets and indicators included quantitative and qualitative statements. Qualitative targets normally required a specific action to have been taken, and did not require any statistics. Most quantitative indicators did require agricultural statistics for determining whether the objectives of NDP2 were met. As can be seen from Annex E, several indicators required by NDP2 could not be provided from available agricultural statistics.

3.2 Targets and indicators

As NDP2 had been approved, the MAWRD had an obligation to meet the set targets and to produce the required indicators. Indicators measured against a baseline also required the baseline to be determined at the beginning of the plan period. The latter indicators included all indicators stated as increasing or reducing a particular indicator value by a certain percentage. While the mentioned obligations of the MAWRD had to be accepted as important cabinet instructions demanding all necessary efforts to be complied with, legitimate concerns regarding the validity of some indicators should also be taken into consideration. Such concerns should, though, be raised at an early stage and not only during the mid-term review or final evaluation of NDP2.

Determining indicators and setting targets have major impacts on priorities in the organization or institution having to perform in terms of the indicators. Indicators and targets should, thus, be carefully considered against the background of the desired priorities of the MAWRD.

The MAWRD should consider the following critiques of the NDP2 indicators and take appropriate steps for addressing the problems or setting more appropriate indicators in collaboration with the National Planning Commission:

1. Most indicators directly or implicitly reflecting agricultural production or output are affected by climatic conditions and other external factors, or they might depend on prevailing market prices. Relatively small
changes of such indicators cannot be measured objectively in the presence of other factors having effects of the same or larger order of magnitude.

2. Indicators requiring a positive change only for a certain percentage of farmers would be met even when achievement deteriorated in the cases of all other farmers, that is, they would indicate a successful achievement of the objectives of NDP2 while disparities among farmers increased.

3.3 Actions related to agricultural statistics required in respect of NDP2

Measurement and reporting of the following indicators had to be implemented. In most cases, exact definitions of the indicators were required.

<table>
<thead>
<tr>
<th>Target and/or indicator</th>
<th>Action required</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Reduce the dependency on conventional/traditional agriculture for livelihood for 10% of the farmers by at least 10% in the agricultural production</td>
<td>○ Definition of ‘dependency on conventional/traditional agriculture for livelihood’</td>
</tr>
<tr>
<td></td>
<td>○ Scrutinising Namibian Household Income and Expenditure Survey for appropriate indicator(s)</td>
</tr>
<tr>
<td></td>
<td>○ Defining proxy indicator or starting routine collection of indicator</td>
</tr>
<tr>
<td>5. 75% of farmers aware of improved seeds and have access to them</td>
<td>○ Recording of supplementary export markets and their capacities for particular commodities</td>
</tr>
<tr>
<td>11. Alternative or supplementary markets established for 80% of agricultural exports by 2006</td>
<td>○ Measurement and recording of granaries’ storage capacity together with production at household level</td>
</tr>
<tr>
<td>13. Granaries with storage capacity of at least two season produce established at household level by 2004</td>
<td>○ Determining fodder requirement per month</td>
</tr>
<tr>
<td>14. Fodder reserves available for at least three months</td>
<td>○ Recording and reporting of fodder reserves</td>
</tr>
<tr>
<td>15. Livestock producers have a broader choice of buyers</td>
<td>○ Recording and reporting of choices of buyers of livestock producers</td>
</tr>
<tr>
<td>20. 10% of communal farmers receive relevant information timely</td>
<td>○ Definition of ‘relevant information’ for communal farmers and ‘timely’ receipt of information</td>
</tr>
<tr>
<td></td>
<td>○ Reporting on types of information communal farmers receive and dates on which they receive them</td>
</tr>
<tr>
<td>22. 80% of elected community leaders effectively promoting the use of information manuals that would have been developed each year during the Plan period.</td>
<td>○ Monitoring and reporting of community leaders effectively promoting the use of information manuals</td>
</tr>
<tr>
<td>25. At least half of all appropriate technologies should be developed and disseminated through FSRE approach and should be adopted by at least 30% of participating farmers by 2006</td>
<td>○ Definition and recording of ‘appropriate technologies’</td>
</tr>
<tr>
<td></td>
<td>○ Monitoring of development and dissemination of ‘appropriate technologies’ through FSRE approach</td>
</tr>
<tr>
<td></td>
<td>○ Monitoring of adoption of ‘appropriate technologies’ by farmers</td>
</tr>
<tr>
<td>27. 80% of the farmers receiving publicly provided services indicate satisfaction of service delivery throughout the Plan period.</td>
<td>○ Recording of farmers receiving publicly provided services</td>
</tr>
<tr>
<td></td>
<td>○ Survey of farmers’ satisfaction with service delivery</td>
</tr>
<tr>
<td>34. Increase individual household assets at a rate higher than inflation and population growth in the agricultural production</td>
<td>○ Reviewing the extent to which available in Namibian Household Income and Expenditure Survey</td>
</tr>
<tr>
<td></td>
<td>○ Inclusion in an extended Annual Agricultural Survey</td>
</tr>
</tbody>
</table>

Apart from the above-mentioned actions, which would be aimed at indicators definitely requiring the appropriate statistics to be collected, all NDP2 indicators should be scrutinised for the feasibility of providing them.

Baseline information had to be compiled for all indicators, including those already being collected, requiring a comparison against a baseline.

Agricultural Statistics for NDP2
4 Gaps in agricultural statistics

4.1 Introduction

Namibia had quite a comprehensive set of agricultural statistics, which were to a large extent decentralised to the different agricultural sectors and key role players or specialist offices in each sector. Perceived gaps in agricultural statistics were often a lack of knowledge of where the required statistics could be obtained from. There were, though, a number of gaps in the statistics. The significance of these gaps would have to be determined by weighing up the benefits for the users against the financial and human resource costs of producing the statistics.

4.2 Overview

An important gap in the information provided to producers is the lack of an enterprise budget. The main constraint was reportedly that the responsibility had not been allocated to a specific component of the MAWRD Directorate of Planning. As an enterprise budget would have allowed especially communal farmers to take informed decisions regarding the products to produce, this particular gap had an immediate negative impact on communal farmers.

Improving the scope and detail of local and international marketing information would have facilitated improved related decision making and strengthened Namibia’s position in trade negotiations.

Financial information, including budget and expenditure information and subsidies were not included in statistical reports.

Crop production, import, export and consumption statistics showed some gaps, including in their coverage of the whole country. Horticulture statistics, which were mainly still at a development stage, should have been disaggregated to specific types of products, in particular the import figures.

There was not much data available on other products, such as grapes, flowers, olives, dates, indigenous plants used for commercial purposes, rabbits, and crocodile farming. The question, whether or not statistics regarding such ‘exotic’ products should be collected, could to some extent be linked to their contribution to the GDP, but, good professional judgement should be used to start collecting statistics on promising new agricultural products at an early stage, long before they reached the GDP-linked threshold. This would be essential for establishing the feasibility of large-scale production of new commodities.

Detail livestock information, such as grades and mass, was lacking to a large extent for communal areas. The meat industry would have profited from information on preferred meat cuts in international and local markets.

Small numbers of weather stations, particularly in the north, resulted in inadequate climatologic data. The Meteorological Services had reportedly definite plans to increase the number of weather stations.

Despite legal requirements, there were gaps in information on farm dams.

Namibia did not produce a hydrological yearbook, while other countries produced one.

The need for socio-economic indicators on the agriculture areas was expressed. These indicators were expected to become increasingly important with the spread of HIV/AIDS and increasing vulnerability of the rural population.

Gaps were also perceived in the capacity of conducting and processing surveys.

The need for baseline data for the NDP2 indicators and additional data requirements for tracking those indicators were already mentioned under ‘Agricultural Statistics for NDP2’ on page 9.

5 Duplications in data collection

5.1 Introduction

Despite the production of agricultural statistics having been highly decentralised to different sectors, the amount of duplication in data collection was small. The main overlap in statistics was between the MAWRD’s Farm-Household Economics Survey and the Annual Agricultural Survey of the Central Bureau of Statistics. Different Geographic
Information Systems (GIS) also lead to a duplication of effort, although the systems were specialised on specific agricultural features. A related problem was that staff members from different components of the MAWRD independently travelled to the same areas of the country for collecting data. This inefficiency should be addressed where the data collection did not require particular expertise.

5.2 Farm-Household Economics Survey and Annual Agricultural Survey

The Farm-Household Economics Survey produced by the MAWRD and the Annual Agricultural Survey produced by the CBS of the NPC essentially targeted the same agricultural sector. While the Farm-Household Economics Survey went into more depth, it only covered one region annually. The Annual Agricultural Survey each year covered the six eastern and central northern regions of Namibia. Both surveys excluded the Kunene region, a fact criticised by several respondents during the interviews.

The Farm-Household Economics Survey should be seen as a valuable background study on communal areas, but, as it was conducted in a different region each year, it would not be a good instrument for producing comparable statistics between regions or regional trends. It is, thus, recommended to discontinue at least the Farm-Household Economics Survey, and to consider incorporating some aspects in the Agricultural Census and/or increasing the scope of the Annual Agricultural Survey and extending it to at least the northern Kunene region, if not to all communal and commercial farming areas.

Related to a decision on the continuation and scope of the Farm-Household Economics Survey and Annual Agricultural Survey, the placement of staff involved in these surveys had to be considered. Such considerations should go as far as contemplating a merger of the agricultural statistics units in the DoP and the CBS. A combined unit would allow a more efficient utilisation of scarce human resources and preclude duplications of efforts. Placing such a unit in the CBS would give it closer proximity to statistical expertise, while the unit would have immediate access to agricultural expertise in the MAWRD. The main advantage of placement in the MAWRD would be the closer integration between agricultural statistics and planning, which is a vital consideration in this respect. It is, thus, recommended to transfer the Agricultural Statistics function of the CBS to the MAWRD.

5.3 Geographic Information Systems

A Geographic Information System (GIS) is an important and powerful tool in analysing and presenting data geographically. As geographic distributions are most important in agricultural research and data analyses, a GIS was required by different components of the MAWRD. This lead to a duplication of effort in obtaining GIS maps and data and an inefficient utilisation of human resources with a relatively large number of staff requiring expert knowledge in using GIS. A system where all staff members of the MAWRD would share GIS data and where a small group of experts would maintain and support a good system would probably be more efficient and give users access to a larger data set.

5.4 Other duplications

Crop Budgets:

Duplications were reported between crop budgets collected by the Directorate of Planning and research projects conducted at irregular intervals by the Directorate of Research and Training. A central repository of such information together with reliable and well-documented data collection processes might prevent such duplications in the future.

Projects

Different donor supported projects reportedly collect the same information at considerable costs due to a lack of coordination. Collected information was not always made available to other potential users within MAWRD, leading to duplications of effort.

Mills

Information on mills was collected by the DoP, Agronomic Board, Namib Mills and Feedmaster.
5.5 Data collection

Data collection at points far from the duty stations of researchers and other staff was a costly exercise. In cases where no expert knowledge was required for collecting the data, or where data collectors could readily be trained, consideration should be given to combining data collection efforts, or to assigning the task to local staff. One possibility mentioned during several interviews was to include data collection in the tasks of extension officers, and to rather appoint a few more extension officers. The savings on transport, travelling expenses and time lost in long distance travelling should compensate for the additional remuneration costs. Assigning such tasks to extension officers might also contribute towards giving them a wider understanding of different aspects of the agriculture sector.

6 Usefulness and impact of different systems

6.1 Introduction

The particular manner in which agricultural statistics were produced contributed towards a high level of relevance of the statistics, at least for the audience they were primarily compiled for. Different producers published statistics in their specific fields of responsibility and expertise, mainly for a specific audience. Most agricultural statistics systems were, thus, useful and had an impact, even if only for a relatively small group of users.

A number of statistical systems should be singled out, either because they were widely used, or because their utilisation seemed not to justify their costs.

6.2 Discussion

Several systems were repeatedly quoted as source of information:

- The three Boards, that is, the Agronomic Board, the Meat Board and the Karakul Board, were prime sources of agricultural statistics;
- the Directorate of Veterinary Services was normally quoted as the source of livestock statistics;
- Meatco and AGRA also provided essential agricultural data;
- the Agricultural Statistics Bulletin was seen as a very important source of agricultural statistics;
- the Annual Agricultural Survey was repeatedly quoted as source of agricultural statistics in respect of the communal areas;
- the National Accounts reports were widely used by users requiring macro-economic statistics;
- rainfall statistics provided by the Meteorological Services were utilised by a number of users, but the small number of weather stations was perceived as a shortcoming.

Some shortcomings were observed in statistical systems:

- The Farm-Household Economics Survey of the MAWRD was hardly mentioned as source of information. Considering the relatively high costs of producing it, these resources might be better utilised in a different manner.
- Some users had doubts about the reliability of the Annual Agricultural Survey. The reports should at least mention the sampling errors to provide users with more than a qualitative statement on the adequacy of the sample. Timeliness was also perceived as a problem.
- The Agricultural Statistics Bulletin should have been published more timely. The limited scope of the bulletin left users with the need of obtaining many statistics from other sources.
6.3 Recommendations regarding statistical systems

Nearly all statistical systems were providing in the information needs of at least specific groups of users and should, thus, continue with their work. Mechanisms not disturbing the successful production of statistics should still be implemented to improve the accessibility of all agricultural statistics.

Attention should be given to significantly improving the timeliness of the Annual Statistics Bulletin. The range of statistics included in the Bulletin should be extended to meet the information needs of its users as recommended in Section 2: 3.2 Agricultural Statistics Bulletin on page 22.

The Annual Agricultural Survey also needed to be published much earlier to ensure that users had access to timely information. Statistical errors should be calculated and reported to allow users to gauge the statistical significance of the data.

No more Farm-Household Economics Surveys should be conducted, or only be conducted every five of ten years. It could be considered to extend the scope of the Agricultural Census and/or the Annual Agricultural Survey to provide some of the information which was provided in the Farm-Household Economics Survey. This should only be done when problems delaying the publication of the Annual Agricultural Survey have been resolved.

7 Assessment of present system, streamlining of collection and exchange, future agricultural statistics collection

7.1 Strengths and weaknesses of the present system

Namibia had a very rich set of agricultural statistics with relatively few gaps. The statistics were mainly produced by the institutions and organisations directly involved in the specific agricultural sector. As a result, there was generally a high level of expertise and high commitment behind the production of agricultural statistics. These strong points need to be retained.

The ‘distributed’ manner in which agricultural statistics were produced often made it difficult for potential users to locate specific statistics. In several cases persons requiring agricultural statistics erroneously came to the conclusion that the specific information they required was not available at all.

Other areas of weakness were discussed under the gaps in the statistics under 4 on page 11 and under 6: Usefulness and impact of different systems on page 13.

7.2 Possibilities for streamlining the collection and exchange of statistics

The collection of statistics needed to be extended in areas mentioned above, mainly in respect of economic, marketing and financial information. As agricultural statistics were successfully produced by the specific experts in each sector, this approach could also be followed in respect of these statistics. This would probably require strengthening the Marketing and Production Economics Subdivision of the DoP. The subdivision should also be equipped to produce the Enterprise Budget.

Agricultural statistics did not adequately cover the communal areas. This problem might be addressed by extending the scope of the Annual Agricultural Survey produced by the CBS. Alternatively, the MAWRD could utilise its staff already serving in the communal areas to collect the required data and process it separately. The latter approach would involve extension workers and require extending their tasks. It would be necessary to provide appropriate training, but, also to motivate the extension workers to take on a greater role than most of them reportedly did in the past. Increasing the workload of extension workers would require appointing additional staff.

The problem of statistics not being produced in good time might be a matter of setting priorities, or of inadequate staffing. Such problems could be resolved by management decisions on priorities, appointing additional staff, or outsourcing the work. Making the timely production of statistics a priority would require management to consciously refrain from assigning other tasks to the staff members producing the statistics. Appointing additional staff, if required, would not only be a matter of funding, but also of the availability of appropriately qualified and competent human resources and of attractive working conditions and remuneration. Outsourcing the production of agricultural statistical
reports should be considered. It would, though, be important to retain the integration between the statistics and the planning and decision making processes in the Ministry.

As suggested earlier, the production of the Farm-Household Economics Survey should be terminated after the data already collected has been processed and published.

The main problem with agricultural statistics seemed to be the access to these statistics. Considering the strengths of the "distributed" system of producing the statistics, centralising the statistics should not be considered as an option. Means should, though, be created for having a centralised source of distribution and provision of statistics. All users could then obtain all agricultural statistics they required from a single source.

A central source of agricultural statistics could be in the form of a repository of statistical reports. A shortcoming of such a system would be the need of having to provide hard copies of the statistics to the users. Apart from the wastage of copies of reports, this would require getting those copies to the users. An Internet-based system would serve the increasing community of users having Internet access. Such a system would require all producers to provide copies of their statistics electronically to a central point. Important older statistical reports could be included in the system by scanning them. It is proposed to create a central repository of agricultural statistics, using the Internet for providing statistics to the users with Internet access, and also using conventional means for serving other users.

There are again two alternatives for setting up an Internet-based repository of statistics: the function could be internally performed by the MAWRD, or it could be outsourced. It is important in this respect to consider the nature of the system: the repository of agricultural statistics would have the function of bringing together agricultural statistics from various sources and providing access to these statistics. Substantial work will have to be done to obtain the statistics from the producers and to convert the statistics to a form suitable for placing them on the Internet. The Internet would only be the technology utilised, but it would not be the "purpose" of the system. Placing the repository with Information Technology would not be appropriate.

7.3 Strategy for the future agricultural statistics collection and analysis

A future strategy for collecting, analysing and providing agricultural statistics should be considered for the short-, medium- and long-term. The short-term strategy would aim at bridging the time until the medium-term strategy would be implemented. Shortcomings in the provision of agricultural statistics should be remedied in the medium-term, but not necessarily in a manner the MAWRD would consider appropriate for a long-term solution. — This section of the report mainly concentrates on the medium-term strategy, while also proposing short-term actions.

It is envisaged that the short-term strategy would be followed until about end-2004, while the medium-term strategy might be applied for three to five years. This would allow adequate time for building up capacities required within the MAWRD for the long-term approach.

Short-term strategy

The aim of the short-term strategy should be to implement measures to remedy serious shortcomings in the provision of agricultural statistics to the extent that this can be done without hiring new staff and within available financial means. Appropriate steps also need to be taken in preparation for the implementation of the medium-term strategy.

The following should specifically be attended to in the short-term:

1. The NDP2 indicators and targets seemed to have been given little attention at the time this report was compiled. This does not imply that the Ministry did not attend to the NDP2 strategies, but rather that apparently little had been done to monitor progress according to the performance indicators. As set out under 3 on page 9, the MAWRD had an obligation to produce the indicators, and some important issues regarding the indicators were mentioned in that section. It is recommended that the Ministry should attend to those issues at an early stage.

2. A specific issue mentioned during the interviews was that the National Development Corporation (NDC) was to be dissolved. The MAWRD should ensure that the valuable agricultural data and research and feasibility studies compiled by the NDC are transferred to a body where they would still be available.

3. The Directorate of Planning in the MAWRD and the Subdivision of Agricultural Statistics in the CBS both worked on publications, which were overdue for release, such as the Agricultural Statistics Bulletin, the Annual Agricultural Survey and the Oshikoto Farm-Household Economics Survey. The latter was reportedly in the process of being finished.

Completing these publications should be considered as a high priority to be attended to in the short-term, and a plan of action should be drawn up to establish exactly what still had to be done, allocate human and financial resources to the tasks, and inform users about the expected publication dates.
The Ministry Management would have to see to it that staff involved in making up the delays was freed from other duties. Alternatively, or in addition, external support could be hired for completing the outstanding reports, depending on the desirability of outsourcing the work and the availability of funds.

It seemed necessary to update and extend the distribution lists of the statistical publications of the MAWRD and CBS to ensure that these important sources of statistics were made available to a wider group of potential users.

4. One of the main shortcomings in the provision of agricultural statistics was that potential users were often not in a position to locate the statistics they required. The situation could be improved substantially in the short-term by creating and maintaining a small database on available statistics and their sources, including details of where the statistics were available. This database should be placed in the DoP, and at least all producers should be aware of the database and be provided with the contact details for making enquiries.

5. A major shortcoming related to agricultural statistics, which was identified, was that no enterprise budgets were produced and that communal and commercial farmers did not have access to economic and marketing data they required for improving the efficiency of their farming enterprises. Ministry management should take a decision on placing the function and responsibility with a specific component within the DoP, and work in this respect should commence at an early stage. Extension workers and commercial and communal farmers' unions could be involved in providing enterprise budgets and related information to farmers.

6. An important aspect of the short-term strategy has to be the planning and preparation for implementing the medium-term strategy. Management decisions on which options to adopt for the medium-term strategy need to be taken at a very early stage of the short-term strategy. Implementation of the medium-term strategy could realistically be planned for between October 2004 and April 2005, depending on the options chosen and availability of resources. An important aspect of the preparations would be to provide for the necessary human and financial resources.

7. Decisions also need to be taken at an early stage on the future of the Farm-Household Economics Surveys, and changes to the scope and coverage of the Annual Agricultural Survey. Related to these decisions, the placement and division of the agricultural statistical functions between the DoP and CBS need to be reconsidered (see section 5.2 on page 12.)

Medium-term strategy

All required functions of an agricultural statistical service should be carried out during the medium-term strategy, but, it would probably be necessary to use more external resources than might be considered to be desirable in the long-term. The medium-term should be considered as a period of establishing an efficient operational system and as an opportunity for the Ministry to develop the capacities required for the long-term strategy.

The MAWRD could consider outsourcing some of the agricultural statistical functions in the medium-term, and if found desirable, also in the long-term. Outsourcing should be considered if the functions considered are not core functions of the Ministry, and if an external organization could provide the specific services more efficiently than the Ministry, or if the Ministry would not be in a position to provide the services for some time.

It seemed from a number of interviews that the Ministry was at the time of the survey not staffed to provide a comprehensive agricultural statistical service, and that the serving staff required more training. Outsourcing some functions for three to five years would allow building up the required staff competencies and setting up an appropriate establishment for an Agricultural Statistical Division in the Ministry. Other considerable advantages of outsourcing would be the pressure on a contractor to perform in terms of his/her contract, and the flexibility he/she would have in replacing staff and obtaining equipment. – The minimum proposed time for outsourcing of three years would allow the service provider to invest in an adequate system without having to charge very high annual fees.

Functions, which should be performed in the medium- and long-term have been sketched in the diagram on page 17, and described in more detail in Annex G, especially regarding the tasks, which have to be performed.

The proposed functions and tasks of an agricultural statistical service have been divided into four sections:

- Agricultural Statistics Repository,
- Agricultural Statistics Internet Service,
- Agricultural Statistical (Management) Information System,
- Agricultural Statistical Planning.

Some related services in the DoP and CBS have been mentioned in Annex G. The proposal made in section 5.2 on page 12, to transfer the agricultural statistical functions of the CBS to the MAWRD, has been incorporated here.
In considering the functions and tasks, it would be important to keep in mind that the statistics are originating from different sources, many of them not controlled by the State. As a consequence, close cooperation would be required with the sources of statistics, continuously following up on outstanding reports, and maintaining good personal contacts with the providers of statistics.

Timely reporting of statistics is essential, especially regarding time bound statistics. If, for example, market related information needs of users are to be met, then daily follow-up would be required, and the website would have to be updated daily.

Furthermore, it should not be expected that all statistics submitted by external sources would be in exactly the format required by the repository, and would, thus, require to be converted into the required format.

The division of functions into four sections was done in a manner, which would allow assigning each section to a different subdivision of the Ministry, or to outsource it. Function listed under Agricultural Statistical Planning should be considered as core functions of the Ministry, and should not be outsourced. The Agricultural Statistics Internet Service could be organised in different ways, as may be considered appropriate by the Ministry. This could involve placing some of the Internet functions with service providers in the private sector or public service, and allocating other functions to the Agricultural Statistics Repository or Agricultural Statistical (Management) Information Service. This allocation of functions listed under Agricultural Statistics Internet Service requires policy decisions of the Ministry.

It is recommended as medium-term strategy to outsource the Agricultural Statistics Repository, the Agricultural Statistical Internet Service, and Agricultural Statistical (Management) Information System. Although placed in three groups, all functions are interlinked and should be outsourced to a single contractor, taking responsibility for all of them.

The functions and tasks remaining under Agricultural Statistical Planning would probably result in a similar workload as the functions presently performed by the combined agricultural statistics staff of the MAWRD and CBS. The Early Warning and Food Information unit was not considered in this respect, as the unit seemed not to require substantial changes. – The proposed extension of the Annual Agricultural Survey to include all communal and commercial farmers in the sampling population would presumably require more resources than the Annual Agricultural Survey conducted in six regions and the Farm-Household Economics Survey combined. According to the proposal, the production of the Agricultural Statistics Bulletin would, though, be outsourced, compensating for the additional work and other new tasks proposed to be performed by an Agricultural Statistical Planning Division.

The DoPr, and particularly the component which would be responsible for Agricultural Statistical Planning, should consider decentralising some of their data collection exercises.

Regular meetings between users and producers of agricultural statistics are essential to ensure that the users’ needs are met, and for the producers of statistics to inform users about available statistics, and to convey to them constraints the producers are experiencing in providing statistics. A formal agricultural statistics user-producer forum or committee should be set up by the MAWRD, and the Agricultural Statistical Planning unit should function as secretariat. This would require, amongst others, organising annual meetings, keeping minutes of meetings, liaising between users and producers, and handling ad-hoc requests addressed to the forum/committee appropriately in times where the forum/committee is not sitting.

Important aspects of the medium-term strategy would also be to decide on a long-term strategy and to start capacity building for the long-term at an early stage.

Capacity building could range from in-service training to sending staff on extended training courses, or providing bursaries for studies at the Polytechnic or University. The immediate training needs of serving staff depends on the level of outsourcing of functions the Ministry decides on.

**Long-term strategy**

In the long-term, the functions to be performed in the medium-term would also have to performed, but should be adapted according to lessons learned in the medium-term, and to meet any new requirements of the Ministry and external users.

If the Ministry would decide to outsource agricultural statistical functions as recommended for the medium-term, it would have to consider whether or not to continue outsourcing. The important questions in this regard would be whether outsourcing proved to be more efficient than performing the functions internally, and whether the MAWRD would at the end of the medium-term outsourcing period be geared to carry out the functions internally, at least as efficient as an external service provider.

If the Ministry decided not to outsource in the medium-term, it should review its success in performing all agricultural statistics functions internally, and reconsider its decision not to outsource, if required.
Section 2: Evaluation and Review of Agricultural Statistics Publications

1 Introduction

1.1 General

The Directorate of Planning, Ministry of Agriculture, Water and Rural Development and the Central Bureau of Statistics are involved in the general collection, compilation and processing of agricultural statistics. Data are collected from a variety of sources, both primary and secondary at different times of the year. Many of these publications have been published for a number of years without any changes. Consequently there is a need to review these publications to evaluate their usefulness and to improve them if necessary.

The main objective of the consultancy was therefore to review the publications of the Statistics and Early Warning Unit within the Directorate of Planning (DoP) and to make recommendations on improvements, usefulness, and data gaps.

The DoP publishes mainly two documents: the Farm-Household Economics Survey (FHES) and the Annual Agricultural Statistics Bulletin.

1.2 Farm-Household Economics Survey

At the time of Namibia's independence in 1990 the only agricultural statistics available were those relating to the commercial sector. There was hardly any statistical information available on agricultural activities on the communal areas or subsistence sector.

In 1994 DFID launched a project for the development of agricultural statistics in Namibia which main focus was to help the Government of Namibia to improve the flow of agricultural data from the communal sector.

Each year one region in the northern communal areas was covered and 180 farming households were interviewed intensively over a period of 8 months. Reports on the survey were published each year and those who are interested could obtain the data set from DoP for further analysis to suit their own needs.

1.3 Agricultural Statistics Bulletin

Each year since 1997 the Statistics Unit produced the Agricultural Statistics Bulletin. This is a publication with a wide range of data which is collected from a variety of sources. Contact with these sources of data takes place around April/May every year and most of the agencies respond willingly. Close working relations have been established with the key personnel in each agency, so that queries can be followed up. June and July are used to prepare the spreadsheets and the final publication should be out by September of each year. Circulation of this publication is free to all who are interested. The demand for this publication has grown extensively over the past few years and it is widely used by the Ministry, research organizations and businesses.

1.4 Early Warning Bulletins

The unit works alongside the statistics unit in DoP. Two publications are produced: The Early Warning Bulletin and the Food Security Bulletin. Around September each year teams go out to brief extension workers about the expected weather conditions for the coming agricultural season. Around February/March DoP carries out a crop assessment mission to talk to farmers and estimate the areas planted. This exercise is repeated in April/May in an attempt to estimate yields. By the end of May DoP has to advise the Government whether imports or food aid are required.
2 Problems and issues

2.1 General

How can communications be improved?

A system of agricultural statistics will work best when those involved in the collection, processing and analysis of data not only do their work in a methodical fashion, but also share their knowledge and experience with each other. If close co-operation between all parties can be established, then the contribution of the whole will be considerably greater than the sum of the parts working in isolation.

Previously the thinking was that DoP would collect the data for the Agricultural Statistics Bulletin and then forward the information to CBS where it would be used to feed into the calculation of the National Accounts. This has changed over the past year or so. CBS is currently publishing bi-annual information on National Accounts and would like to expand this to quarterly and later monthly information. This means that the information should rather flow from CBS to DoP than from DoP to CBS in the future to ensure consistency. It is very important that the annual output figures of CBS and DoP are consistent and that there are not two sets of different output data which would lead to questions about the validity of the data. However, this exercise can be much more useful if the workload is shared between the two Ministries.

How can the general quality of statistical output be improved?

The range and quality of statistical work done by CBS and DoP will depend on several factors: the level of training received by staff prior to joining the department, any additional external training received while in post, and the quality of training and supervision received on-the-job. Statisticians need to be methodical in their work and constantly double-check their calculations. They should be trained to question the figures they receive. If they are doubtful about a figure, they should try to obtain an independent estimate. Knowledge of the agricultural sector is vital to explain anomalies in data.

2.2 Agricultural Statistics Bulletin

The Agricultural Statistics Bulletin is a vast source of information which should be useful to everyone who uses it. It is the only publication of its kind that tries to bring together data about the whole agricultural sector. However, the publication has some shortcomings.

Specific Shortcomings:

The figure on hides and skins is an estimation which is obtained from CBS. It is not clear how this figure is derived at. It might be useful to obtain an estimation on the production of this figure. Meatco should provide the data on this figure. An effort should be made to collect data on the number of hides and skins.

Own Construction is also an estimation obtained from CBS and the same goes for this figure as for hides and skins.

Other Livestock and livestock products also has its own problems. The egg data is an estimation which was obtained from NAU when the Bulletin was started in 1997 and it is increased with a fixed amount annually. This estimation has never been verified and should be through a survey of egg producers. There are several egg and chicken farms such as WaldSchmidt in Namibia.

The Ostrich data has always been obtained from NAU. That has changed during the past few years and should now be provided by the Directorate of Veterinary Services who is supposed to issue the permits for the slaughter and sale of ostriches. Unfortunately this is not a reliable source of data and a way should be found to verify this data.

Grape data also has its own challenges. The main problems are that grapes are a commercially produced crop which is not regulated and therefore no reliable data is available. The DoP has to rely on the information provided by the main grape producers who are more than often reluctant to provide the necessary information. Furthermore there are a number of small producers who are not taken account of in the estimation of this data. It would be necessary to either regulate the grape sector or to do a survey to obtain a reliable figure for this data.

There are also a number a data gaps. The first is that there is no mention of game. The figure for game which is currently used is an estimation obtained from CBS. Game farming and hunting is one of the fastest growing sectors in the Namibian economy. Currently the Ministry of Environment and Tourism is supposed to keep record of all hunting
of wildlife in the country. The system is however not dependable which could lead to a gross over- or underestimation of this data.

There is no data on horticulture although there are some farms in the south which produce fruits and vegetables as well as some farms in the north. Dates, watermelons, melons, citrus and a wide range of vegetables are produced all over the country which is not accounted for. There is also a farm for cut flowers in the area of Dordabis.

None of this data is included in the publication or the National Accounts data. CBS and DoP should try and find a solution to this problem. Government’s plan to regulate horticulture under the Agronomic Board should simplify the task for both ministries, but other sources such as NDC should also be explored.

Most of the data used for the communal sector is an extrapolation of the Household Income and Expenditure Survey using the CPI and RSA food index since no information is available. The only data available is that of crops which are estimated using the agricultural census and the information from the Early Warning Bulletins. The meat data represent only those animals slaughtered by Meatco. All other figures are estimations. A possibility might be a small survey to obtain reliable data on the produce of other foods in the communal sectors or this could be incorporated in the Annual Agricultural Census which would be the better option.

It is important that key people in DoP should be involved in the preparation of the Bulletin and in providing commentary before it is published to ensure no errors. It would be a good idea to ensure that advance draft copies of the publication are sent to key managers within DoP and CBS for comments.

**General Shortcomings:**

The shortcomings as identified by the users were that the data is historical and that currently the Bulletin is not published annually. Since this is such an important publication and the fact that it is used widely and extensively, every effort should be made to ensure that it is published by September of each year.

Another shortcoming is that the Bulletin is not user-friendly and easily understandable by all the users due to the fact that only very few tables and graphs are explained. More interpretation of the information contained in the Bulletin is necessary.

### 2.3 Farm-Household Economic Survey

The Statistics Unit in the DoP runs the FHES. Each year one of the six Northern Communal Areas were covered. Survey reports have been completed for Okavango 95/96, Caprivi 96/97, Ohangwena 97/98, Omusati 98/99 and Oshana 99/2000. The report for Oshikoto need to be finalised.

The survey covers a wide range of topics and each household was interviewed 18 times in all, at two-weekly intervals over an eight-month period. The enumerator stayed in the village. Two supervisors stayed in the North and moved around between the villages to check the quality of the interviewing. Initial data entry is done in the north, using Access for data entry and validation. Tables are done in Excel. A comprehensive report is produced and the datasets from each year’s survey are available for interested researchers to use.

The shortcomings are whether the results can be considered to be of any statistical use. The report contains many percentages and averages but it needs to be remembered that these are based on 180 households at most, clustered in only 6 villages. No weighting of data to account for the differences in population size.

The fact that the survey is done over six years makes regional comparisons also very difficult because of differences in climate and rainy seasons. One survey every say five to ten years over all the regions would provide a trend to monitor progress and allow regional comparisons, which should be much more useful. This would however be a very expensive and large exercise which might not fall within the scope of the Statistics Unit. It would therefore be recommended that this should be a joint exercise between CBS and DoP and that it could be part of the Agricultural Census or the Annual Agricultural Survey. Therefore, while the survey undoubtedly provides useful qualitative information, its value would be greatly enhanced if it were based on a proper statistical sample across all six regions in the same year.

### 2.4 Early Warning Bulletins

The Early Warning Bulletins are produced by the Early Warning Unit and provide a wide range of information on crops, yields, animal diseases, veld fires and the general state of communal farming with relation to drought and food shortages. The bulletins are distributed to a large number of government agencies, newspapers and other interested parties and are mainly used by the MAWRD and Office of the Prime Minister for planning purposes.
These Bulletins were originally prepared as part of the FAO regional initiative which tries to have a fixed layout. However, more information could be contained in the Bulletins such as general economic conditions of households with reference to food security issues such as storage of grain. This should not be too difficult to obtain since the Early Warning staff do field visits and work very closely with the extension officers in the field. A short questionnaire for this purpose could be designed.

Since the bulletins serve as a kind of newsletter it should not contain too much detail on the information but should provide an overview of the state of communal and commercial agriculture and food security. More effort should be made to present this as a factual document to other agencies working with food security issues such as WFP, UN agencies, donors and the Government.

3 Recommendations

3.1 Farm-Household Economics Survey

Since the FHES is not widely used it is recommended that this survey should not continue, the reasons being as described in earlier sections. If the decision is taken to continue with this survey it is recommended that it be done only every 5 or 10 years in all six or more regions at the same time and that it should be expanded to include a bigger sample. This could be done under the Agricultural Census or the Annual Agricultural Survey by just expanding the questionnaire to include questions contained in the FHES. In this way it could be recognized as the major policymaking tool providing comprehensive data on the communal sector which is extremely important for the MAWRD. This survey could be done in close collaboration between the two Ministries.

There is a clear need that the analysis of all the Farm-Household Economic Surveys be completed for consistency as well as for future reference.

3.2 Agricultural Statistics Bulletin

There is a clear need to expand the Agricultural Statistics Bulletin to contain more information on the agricultural sector. This Bulletin should be interesting and informative and should be the main source of agricultural statistics for both Government and the private sector and should be promoted as such.

It is recommended that the Statistics Unit in the Directorate of Planning focus most of its attention on this bulletin. Small surveys could be done to ensure reliable data on grapes, game, eggs, flowers, etc. In close corporation with the Marketing unit in DoP price series information, farm budget information, etc could be included. More effort should also be made to include reliable and informative data on the communal sector. At this stage all data included in the Bulletin on the communal sector are estimated obtained from the Household Income and Expenditure Survey conducted every 5 years.

There is also a clear need for reliable and up to date trade statistics and consumption data. According to recent information obtained from CBS trade statistics are available and can thus be incorporated in the Agricultural Statistics Bulletin.

4 Conclusion

It is clear that the Agricultural Statistics Bulletin is a widely used document and therefore it is recommended that DoP no longer produces the FHES but focuses its resources – directly or by outsourcing – to improving the Agricultural Statistics Bulletin and the Early Warning Bulletins and promote these two documents as the official agricultural publications together with the Annual Agricultural Survey.
Annexes

Annex A: Terms of Reference

Review of different agricultural statistical systems

In particular the consultant should complete the following tasks *inter alia*:

a) Draw up a list of the different Agricultural Statistical Systems currently utilized and applied within MAWRD and other agencies/organizations;

b) Draw up a list of the current agricultural statistics and related information available within MAWRD and other agencies/organizations;

c) Identify the users and producers of agricultural statistics information;

d) Assess whether the agricultural statistical information collected is in line with the objectives of the NDP2 (or national development initiatives);

e) Identify the gaps existing within the Agricultural Statistical Systems and in the data to be collected;

f) Investigate how the collection of statistical information could be streamlined or exchanged between the different agencies/organizations;

g) Identify the areas where duplication occurs within the different agricultural statistical systems;

h) Identify the usefulness and impact of the different systems;

i) Collaborate with the consultant Evaluating the Products at the Statistics Unit of the MAWRD;

j) Provide the DoP with a strategy for future agricultural data collection and analysis;

k) Present the findings to a workshop/seminar and Management.

Evaluation and review of agricultural statistics publications

a) Consult the stakeholders (policy-makers and analysts) for possible shortcomings in the current data system.

b) Evaluate the Annual Statistics Bulletin and how best the bulletin can be improved.

c) Evaluate the Farm-Household Economic Survey Reports and their usefulness depending on the response from the users.

d) Commission for stakeholders and producers of all Statistical data and compile the report.

e) Produce the report of the findings and recommendations.
## Annex B: Agricultural statistical systems and producers of statistics

<table>
<thead>
<tr>
<th>Producer of statistics, statistical system</th>
<th>Publication and/or website</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Ministry of Agriculture, Water and Rural Development (MAWRD)</strong></td>
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<tr>
<td>MAWRD: Co-operatives</td>
<td>Annual report by the Registrar of Co-operatives</td>
<td>Statistics mainly on financial data and membership – included all co-operatives, also those not related to agriculture.</td>
</tr>
<tr>
<td>MAWRD: Directorate of Planning, Marketing and Production Economics</td>
<td>Supporting the production of Agricultural Price Watch and Mahangu News</td>
<td>Have statistics on non-controlled agricultural products, such as grapes, cotton, lucerne, dairy products and ostriches. Marketing statistics on specific products. Track world market trends.</td>
</tr>
<tr>
<td>MAWRD: Directorate of Planning, Marketing Sub-division</td>
<td>Agricultural Price Watch</td>
<td>Prices of crops, meat, cash crops and production cost indicators (fertiliser and light delivery van.)</td>
</tr>
<tr>
<td>MAWRD: Directorate of Planning, Statistics</td>
<td>Agricultural Statistics Bulletin</td>
<td>The Agricultural Statistics Bulletin is one of the key sources of agricultural statistics. Contribution to GDP compared to other sectors; production, prices and outputs of agricultural sub-sectors over time; livestock numbers, slaughtered, exports; karakul wool and pelts statistics; other products (eggs, milk, ostriches); crop production in commercial and communal farming areas.</td>
</tr>
<tr>
<td>MAWRD: Directorate of Research and Training</td>
<td>Various publications</td>
<td>Agricultural research, analytical services, collection and processing of agricultural data (mainly in research or analytical context), geographic information system (GIS).</td>
</tr>
<tr>
<td>Producer of statistics, statistical system</td>
<td>Publication and/or website</td>
<td>Description</td>
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<tr>
<td>MAWRD: Food Insecurity and Vulnerability Information and Mapping System (FIVIMS)</td>
<td>Ground water in Namibia</td>
<td>Ground water system data on 60,000 boreholes; monitor water table level monthly at 400 boreholes; assessment of available water for planned projects.</td>
</tr>
<tr>
<td>MAWRD: Geo-hydrology</td>
<td>Various publications</td>
<td>Collect, collate, capture, analyse and interpret data on botanical resources. Data on indigenous plants, seeds, etc.</td>
</tr>
<tr>
<td>MAWRD: Hydrology</td>
<td>Progress Report</td>
<td>Project data and background statistics</td>
</tr>
<tr>
<td>MAWRD: National Botanical Research Institute</td>
<td>Directorate of Veterinary Services: Annual Report (Epidemiology Section)</td>
<td>Epidemiological Information System: Animal disease information, livestock head counts (including ostrich and game), meat import and export data according to permits issued.</td>
</tr>
<tr>
<td>MAWRD: Research Extension Management Programme (REMP)</td>
<td></td>
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<tr>
<td>MAWRD: Veterinary Services</td>
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**National Planning Commission: Central Bureau of Statistics**

<table>
<thead>
<tr>
<th>National Planning Commission, Central Bureau of Statistics: Agricultural Statistics Division</th>
<th>1994/1995 Namibia Agricultural Census; Technical Report; Basic Tables of Commercial Agriculture; Basic Tables of Communal Agriculture</th>
<th>Technical information on census, census data: number and areas of farms, tenure, main activities, livestock by sex, increases and decreases of livestock, labour input, equipment, access to services, arable land, household information, land holders’ information, field sizes, agronomic practices, crops, yields, livestock (next census due 2004/2005 or 2005/2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Planning Commission, Central Bureau of Statistics: Agricultural Statistics Division</td>
<td>Annual Agricultural Survey</td>
<td>Annual sampling survey in Caprivi, Kavango, Ohangwena, Omusati, Oshana and Oshikoto: basic data on area planted, production and yield of mahangu, sorghum and maize; limited range of data on livestock collected per agricultural unit (farming household)</td>
</tr>
<tr>
<td>National Planning Commission, Central Bureau of Statistics: National Accounts</td>
<td>National Accounts; Preliminary National Accounts; Provisional Quarterly GDP Estimates</td>
<td>Gross Domestic Product (GDP) by sector, including Agriculture and Forestry; Gross Fixed Capital Formation; Fixed Capital Stock; exports and imports of goods and services</td>
</tr>
</tbody>
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<td><strong>Other ministries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Environment and Tourism: Scientific Services – wildlife permit system</td>
<td>Annual report</td>
<td>Permits required for utilising wild life (game or plants) for commercial purposes – game captured, life exports, trophy hunting, hunting for biltong.</td>
</tr>
<tr>
<td>Ministry of Works, Transport and Communication: Namibia Meteorological Services</td>
<td>Special bulletins on specific rainy seasons; WHOT? Bulletin, press releases; reports</td>
<td>Meteorological data on rainfall, temperatures, etc.</td>
</tr>
<tr>
<td><strong>Boards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Namibian Agronomic Board (crops)</td>
<td>Annual Report</td>
<td>Statistics mainly on controlled crops, i.e., white maize and wheat, but also on yellow maize, sunflower, mahangu, sorghum, groundnuts, cotton and beans. Data were mainly collected from farmers and millers registered with the Board.</td>
</tr>
<tr>
<td>Namibian Agronomic Board (horticulture)</td>
<td></td>
<td>The horticulture component of the Board was still under development, especially the information system. Information was compiled on the production, import and export of fresh fruit and vegetables. It was envisaged that this information would be published quarterly and be accessible on a webpage.</td>
</tr>
<tr>
<td>Meat Board of Namibia</td>
<td>Annual report</td>
<td>Producers’ system: meat import and export permits and farmers’ details; Farm Assured Namibian Meat Scheme (FAN); small stock scheme: quotas allocated for slaughtering and export; stock brand system: information on stock brands; veterinary database: records of livestock movements (permits issued)</td>
</tr>
<tr>
<td>Karakul Board of Namibia</td>
<td>Yearbook, market report and newsletter</td>
<td>Disaggregated information on pelts and wool sold on auctions and on karakul stud auctions.</td>
</tr>
<tr>
<td><strong>Other producers of statistics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meatco</td>
<td>Annual report</td>
<td>Livestock slaughtered, grading of meat, average mass and prices by grade, livestock bought, meat exported, meat rejected, hides and skins processed and sold. Website: <a href="http://www.meatco.com.na">www.meatco.com.na</a> – limited access to detail information.</td>
</tr>
<tr>
<td>AGRA</td>
<td>Website: <a href="http://www.agra.com.na">www.agra.com.na</a></td>
<td>Published information relevant to livestock farmers on website. This included auction statistics and weekly updates of abattoir information.</td>
</tr>
<tr>
<td>Producer of statistics, statistical system</td>
<td>Publication and/or website</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Namibia Development Corporation (NDC)</td>
<td></td>
<td>Various data collected for research purposes and feasibility studies; also including data not reported elsewhere, such as data on dates and prickly pears.</td>
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<tr>
<td>Namibia Agricultural Union (NAU)</td>
<td>Wage survey</td>
<td>Agricultural Employers' Association wage survey</td>
</tr>
<tr>
<td>Namibia Agricultural Union (NAU) – Agricultural Study Groups</td>
<td>Various reports</td>
<td>Diverse studies compiled by study groups of farmers</td>
</tr>
<tr>
<td>Bank of Namibia</td>
<td>Annual Report</td>
<td>Financial statistics on all sectors, including agriculture. Agricultural statistics were obtained from the Central Bureau of Statistics and the MAWRD. The Bank of Namibia produced quarterly and annual analyses of the performances of sectors and their contributions to the GDP.</td>
</tr>
</tbody>
</table>

**External (international) sources of statistics¹**

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<thead>
<tr>
<th>Source</th>
<th>Website</th>
<th>Description</th>
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<tr>
<td>The Public Ledger</td>
<td>Website: <a href="http://www.public-ledger.com">www.public-ledger.com</a></td>
<td>Market and trading information on a large range of commodities</td>
</tr>
<tr>
<td>Jacobsens South Africa</td>
<td>Website: <a href="http://www.customtariff.co.za">www.customtariff.co.za</a></td>
<td>South Africa customs tariffs, essential information for trade negotiations</td>
</tr>
<tr>
<td>World Trade Organisation</td>
<td>Website: <a href="http://www.wto.org">www.wto.org</a></td>
<td>Trade information on imports and exports</td>
</tr>
<tr>
<td>Safex Agricultural Derivatives Division</td>
<td>Website: <a href="http://www.safex.co.za">www.safex.co.za</a></td>
<td>Agricultural commodities prices</td>
</tr>
<tr>
<td>Agricultural Information Services</td>
<td>Website: <a href="http://www.agritel.co.za">www.agritel.co.za</a></td>
<td>South African fresh produce prices</td>
</tr>
<tr>
<td>The currency site</td>
<td>Website: <a href="http://www.oanda.com">www.oanda.com</a></td>
<td>Exchange rates</td>
</tr>
</tbody>
</table>

¹ Limited selection of sources consulted by some Namibian users
Annex C: Index to current agricultural statistics

Notes: 1. The sources of statistics referred to in the index have been tabulated in the table ‘Sources’. Many statistics have been listed under different terms to make it easier to locate the statistics.

2. Statistics obtained during the review have been included in the index. In general, data and information not published periodically have been excluded. The limited scope and time-frame of the review might have resulted in the omission of some statistics.

Sources

<table>
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<tr>
<th>Reference</th>
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<tbody>
<tr>
<td>01.01</td>
<td>AGRA; Website <a href="http://www.agra.com.na">www.agra.com.na</a></td>
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<tr>
<td>02.01</td>
<td>Agronomic Board; Agronomic production and marketing data</td>
</tr>
<tr>
<td>02.02</td>
<td>Agronomic Board; Horticulture</td>
</tr>
<tr>
<td>03.01</td>
<td>Bank of Namibia; Annual report</td>
</tr>
<tr>
<td>04.01</td>
<td>Karakul Board; Yearbook, market report and newsletter</td>
</tr>
<tr>
<td>05.01</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Co-operatives</td>
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<tr>
<td>05.02</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Directorate of Planning: Agricultural Price Watch</td>
</tr>
<tr>
<td>05.03</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Directorate of Planning: Agricultural Statistics Bulletin</td>
</tr>
<tr>
<td>05.04</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Directorate of Planning: Crop assessment report</td>
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<tr>
<td>05.05</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Directorate of Planning: Food Security Bulletin</td>
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<tr>
<td>05.08</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Geo-hydrology, ground water system</td>
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<tr>
<td>05.09</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Hydrological data system (surface water)</td>
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<tr>
<td>05.10</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); National Botanical Research Institute</td>
</tr>
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<td>05.11</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Mahangu Marketing Unit: Mahangu News</td>
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<tr>
<td>05.12</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Research and Extension Management Programme (REMP)</td>
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<td>05.13</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Directorate of Research and Training</td>
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<tr>
<td>05.15</td>
<td>Ministry of Agriculture, Water and Rural Development (MAWRD); Veterinary Services: Epidemiological Information System</td>
</tr>
<tr>
<td>06.03</td>
<td>Meat Board; Annual Report</td>
</tr>
<tr>
<td>08.01</td>
<td>Ministry of Environment and Tourism, Scientific Services; Wildlife trade and permit control</td>
</tr>
<tr>
<td>09.01</td>
<td>Ministry of Works, Transport and Communication; Namibia Meteorological Services</td>
</tr>
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<td>10.01</td>
<td>Namibia Agricultural Union; Agricultural Employers’ Association wage survey</td>
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Prices; grain - mahangu, maize (05.02)
Annex D: Users of agricultural statistics

Agricultural planning
  Management (decision and policy making)
  MAWRD DoP (statistics for Agricultural Statistics Bulletin)
  Project planning (head office and regions)

Agricultural researchers
  MAWRD
    Research and Training (research data)
    National Botanical Research Institute (meteorological information, mainly rainfall information)
    Agricultural Engineering (water needs per crop)
    Geo-hydrology (crops – actual and planned production – to establish water needs and advise on availability of water)
    Veterinary Services (livestock statistics, market prices of livestock, CBS population statistics, economic statistics)
    Extension workers (information to be conveyed to farmers, for own information)
    Early Warning, (food production, import and export, meteorological data, FIVIMS, population projections)
    Co-operatives (feasibility studies)
  Desert Research Foundation
  Academic institutions
  Students

Farmers (producers)
  Communal farmers (Production and marketing decision making, viability of production alternatives, marketing opportunities, market prices – Price Watch is a source of information)
  Commercial farmers (Production and marketing decision making, viability of production alternatives, marketing opportunities, market prices – obtain information through boards, including communication by radio and newspapers, farmers’ union, Meatco, commerce, e.g. Agra)

Agricultural Study Groups
  Agricultural Boards (production and marketing statistics for members, planning, customs export and import statistics)
  Agronomic Board (statistics from mills)
  Meat Board (statistics from Meatco, municipal abattoirs, registered farm abattoirs, Agra)
  Karakul Board (veterinary census, meat board statistics for comparing pelt and meat prices, Karakul Breeders’ Association statistics)

Farmers’ unions
  NNFU (livestock census, socio-economic surveys, production information, carrying capacity, rainfall, availability of grazing)
  NAU (household income and expenditure statistics produced by CBS, annual reports of the agricultural boards, statistics produced by the Agricultural Bank of Namibia and the Ministry of Lands and Resettlement)

Economical researchers and analysts
  Research institutes
    IPPR
    NEPRU
  Academic institutes
  Students
  Commercial banks
  Bank of Namibia
    Economic activities
    Performance of economic sectors
    Balance of payments (import and export statistics of agricultural commodities)
    Macro-economic modelling
  Investors
  International agencies
FAO (FAO Bulletin of Statistics, FAO website, FIVIMS – reported separately)
SADC (SADC yearbook)
Other UN agencies
African Development Bank
EU (compliance with EU food import regulations)
Donors, embassies (project planning, monitoring and evaluation)
Projects (international projects)
FIVIMS (information on food supply, factors contributing food insecurity and vulnerability in general, household resources for agricultural production; nutritional status of children, HIV/AIDS status of population, educational statistics)

Environmentalists
Other Ministries
- National Planning Commission (national accounts, exports, imports, production, development planning)
- Ministry of Health and Social Services
- Ministry of Basic Education, Sport and Culture
- Ministry of Higher Education, Training and Employment Creation
- Ministry of Labour
- National Emergency Management Unit, Office of the Prime Minister (availability of food, information on agricultural emergencies)

Namwater and municipalities and consultants providing services to them (availability of water, river flow (history), ground water levels)

Financial institutions
- Commercial banks
- Agricultural Bank of Namibia (loans to farmers)

National Development Corporation
- Economic viability of agricultural projects

Commerce (wholesalers and dealers in agricultural commodities)
Other organizations
- Consultants
- Community based organizations and traditional leaders
- Non-governmental organizations
- Churches

General public and media – newspapers, radio, television
### Annex E: NDP2 indicators

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<tr>
<th>Targets and indicators set in NDP2</th>
<th>Relevant statistics and remarks</th>
</tr>
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<tbody>
<tr>
<td><strong>Production (to be achieved by the end of the Plan period)</strong></td>
<td></td>
</tr>
<tr>
<td>1. Increase total agricultural output by 5% in real terms</td>
<td>National Accounts: Gross Domestic Product (GDP) – Agriculture and Forestry; Central Bureau of Statistics</td>
</tr>
<tr>
<td>2. Increase contribution of total agricultural output to 10% of GDP - value added</td>
<td>National Accounts: Gross Domestic Product (GDP) – Agriculture and Forestry; Central Bureau of Statistics</td>
</tr>
<tr>
<td>3. Reduce the dependency on conventional/traditional agriculture for livelihood for 10% of the farmers by at least 10% in the agricultural production</td>
<td>Namibian Household Income and Expenditure Survey</td>
</tr>
<tr>
<td>4. Influence the establishment of at least 10 non-agricultural/complementary enterprises in each agricultural subdivision during the Plan period</td>
<td>Partially qualitative indicator</td>
</tr>
<tr>
<td>5. 75% of farmers aware of improved seeds and have access to them</td>
<td>Proxy indicators:</td>
</tr>
<tr>
<td>6. Reduce the value of agricultural imports by 5%</td>
<td>Annual Agricultural Survey – Use of Seeds by Percent of Area Planted to Cereal Crop; Central Bureau of Statistics</td>
</tr>
<tr>
<td>7. 30% of maize producing farmers increase their production by 20% per hectare</td>
<td>National Accounts: Imports of Goods and Services (current and constant prices) – Agriculture and Forestry; Central Bureau of Statistics</td>
</tr>
<tr>
<td>(a) Annual Agricultural Survey – Cereal production (tons), mahangu, sorghum and maize and area planted (in ha) (area not reported disaggregated by crop, but presumably available); Central Bureau of Statistics</td>
<td></td>
</tr>
<tr>
<td>(b) Namibian Agronomic Board Annual Report – White maize and yellow maize: Hectares planted, marketed production, producer prices, imports and exports (data collection includes mahangu)</td>
<td>See 7 above</td>
</tr>
<tr>
<td>8. 30% of the 150 000 mahangu producing farmers increase their production by 20% by 2006</td>
<td>Indicator or proxy indicator could be calculated from data available from the Epidemiological Information System and statistics on hides and skins sold (available from Meatco’s tanneries)</td>
</tr>
<tr>
<td>9. Livestock off-take in communal areas increased from 5% to 10% by 2006</td>
<td></td>
</tr>
<tr>
<td><strong>Marketing and trade</strong></td>
<td>National Accounts: Exports of Goods and Services – Live animals and animal products (current prices and constant prices); Central Bureau of Statistics</td>
</tr>
<tr>
<td>10. Raise the exports of internationally acceptable agricultural products by N$200 million in real terms by 2006</td>
<td>Meat Board of Namibia annual report – exports of carcasses and meat cuts to RSA and oversea markets (all exports could be classified as ‘internationally acceptable’)</td>
</tr>
<tr>
<td>11. Alternative or supplementary markets established for 80% of agricultural exports by 2006</td>
<td>Qualitative indicator</td>
</tr>
<tr>
<td>12. Anti-dumping legislation, intellectual property rights and SPS-regulations implemented by 2003</td>
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### Targets and indicators set in NDP2

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<th>Number</th>
<th>Description</th>
</tr>
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<tbody>
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<td>13.</td>
<td>Granaries with storage capacity of at least two season produce established at household level by 2004</td>
</tr>
<tr>
<td>14.</td>
<td>Fodder reserves available for at least three months</td>
</tr>
<tr>
<td>15.</td>
<td>Livestock producers have a broader choice of buyers</td>
</tr>
<tr>
<td>16.</td>
<td>Strengthen institutional and human resource capacity to negotiate and analyse international agreements by 2002</td>
</tr>
<tr>
<td>17.</td>
<td>Reduce the farmer-to-FSRE extensionist in communal areas by 10% from current ratio of 1:3000</td>
</tr>
<tr>
<td>18.</td>
<td>Six (6) FSRE Units established, staffed, equipped and effectively operational by 2006</td>
</tr>
<tr>
<td>19.</td>
<td>All agricultural service providers have access to Website agricultural information by 2006</td>
</tr>
<tr>
<td>20.</td>
<td>10% of communal farmers receive relevant information timely</td>
</tr>
<tr>
<td>21.</td>
<td>Establish a coordinating body in each region that should meet monthly to review activities in the region.</td>
</tr>
<tr>
<td>22.</td>
<td>80% of elected community leaders effectively promoting the use of information manuals that would have been developed each year during the Plan period.</td>
</tr>
<tr>
<td>23.</td>
<td>At least one institution per region, by 2006, whose task will be to facilitate input supply and marketing</td>
</tr>
<tr>
<td>25.</td>
<td>At least half of all appropriate technologies should be developed and disseminated through FSRE approach and should be adopted by at least 30% of participating farmers by 2006</td>
</tr>
<tr>
<td>26.</td>
<td>70% of publicly provided services decentralized by 2006</td>
</tr>
<tr>
<td>27.</td>
<td>80% of the farmers receiving publicly provided services indicate satisfaction of service delivery throughout the Plan period</td>
</tr>
<tr>
<td>28.</td>
<td>Reform, amend, repeal, enact, create and implement, as appropriate, agricultural and related Acts, Policies and Legislations</td>
</tr>
<tr>
<td>29.</td>
<td>National Drought Policy fully implemented by 2005</td>
</tr>
</tbody>
</table>

### Relevant statistics and remarks

- Partially qualitative indicator
- Available from Directorate of Extensions and Engineering
- Partially qualitative indicator
- Partially qualitative indicator
- Qualitative indicator
- Partially qualitative indicator
- Qualitative indicator
- Partially qualitative indicator
- Qualitative indicator

**Policy and Legislation**

- Qualitative indicator
- Qualitative indicator
<table>
<thead>
<tr>
<th>Targets and indicators set in NDP2</th>
<th>Relevant statistics and remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>30. National Pest Control Policy and Strategy developed and implemented by 2003</td>
<td>Qualitative indicator</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td></td>
</tr>
<tr>
<td>31. Drought Fund of NS200 million in place and functional by the year 2002</td>
<td>Partially qualitative indicator</td>
</tr>
<tr>
<td>32. Increase the percentage of the development and recurrent budget allocated to communal areas to 90% and 80% respectively by 2006</td>
<td>Qualitative indicator</td>
</tr>
<tr>
<td>33. Rural and micro-finance credit schemes implemented by 2002</td>
<td></td>
</tr>
<tr>
<td><strong>Livelihood standards</strong></td>
<td></td>
</tr>
<tr>
<td>34. Increase individual household assets at a rate higher than inflation and population growth in the agricultural production</td>
<td>To some extent in Namibian Household Income and Expenditure Survey and/or Farm-Household Economics Survey; should be included in an extended Annual Agricultural Survey</td>
</tr>
<tr>
<td>35. 10% of farmers’ livelihood enhanced by at least 15%</td>
<td>Namibian Household Income and Expenditure Survey (requires definition of ‘farmers’ livelihood’)</td>
</tr>
</tbody>
</table>
Annex F: Gaps in agricultural statistics

Agro-economic information

Agricultural enterprise budget
- Input data (capital required for producing specific crops in specific areas)
- Market prices
- Trend information (history and projections)

Marketing statistics
- Information on destinations and market prices
- Quantity of crops grown and crops required
- Basic statistics for agricultural economy were largely lacking
- Import and export figures to Angola were highly unreliable
- Important information for trade negotiations was lacking

Financial statistics
- Budget and expenditure statistics
- Subsidies

Land use
- Stocking rates or ratios (kg/ha) at the level of population enumeration areas
- Water use
- Charcoal production

Crops
- Complete information regarding crop production and demand:
  - Crop production including accurate crop statistics on all communal areas where crops are planted,
  - Internal consumption (human and animal feed),
  - Post harvest crop losses,
  - Export and import,
  - Storage,
  - Estimate of export and import not recorded (illegal marketing and export of controlled crops could amount to about 10% of production)

Horticulture
- Disaggregation of statistics by type of vegetable (e.g. potatoes, carrots, etc.)

Other products
- Flowers
- Olives
- Dates
- Grapes
- Indigenous plants used for commercial purposes

Livestock information
- Detail livestock information for communal areas (grades and mass)
- Livestock numbers disaggregated to the population census enumeration areas
- Prices of imported livestock

Other animal production
- Rabbits
- Crocodile farming
Meat production
Consumption (preference) of specific meat cuts for different international and local markets

Game
Game population

Climatologic and hydrologic data
Climatologic data
Climatologic information for specific areas (few stations in north and incomplete data)
Information on farm dams
Lacking information despite legal requirements
Hydrological yearbook
Produced in other countries – possibility of producing such a book should be investigated as it contains informative statistics

Socio-economic indicators
Vulnerability statistics
Poverty
Gender statistics (heads of Farm-Households)
HIV/AIDS status of farming population
Orphans
Age of head of household

General
Collection and provision of statistics
Where to find statistics (no central repository)
Coordination of data collection exercises
Poor distribution (including to important users, e.g., farmers)
Methodology, etc.
Methodology of sampling and collecting data was often not good
Validity of questionnaires
Analysis and interpretation of data often not good
Insufficient analysis of trends and projections
Insufficient human resources and capacity

Baseline information for NDP2
As mentioned under ‘Agricultural Statistics for NDP2’ on page 9.
Annex G: Functions and tasks of an Agricultural Statistical Service to be performed in the medium- and long-term

The proposed functions and tasks of an agricultural statistical service have been listed below. The list has been divided into groups, which could be assigned to different subdivisions of the Ministry, or be outsourced. Functions listed under Agricultural Statistical Planning would not lend them for outsourcing. The Agricultural Statistics Internet Service should be organised in a manner considered appropriate by the Ministry. This could involve placing some functions under this heading with service providers in the private sector or public service, and allocating other functions to the Agricultural Statistics Repository or Agricultural Statistical (Management) Information Service. This division of functions under Agricultural Statistics Internet Service was not done here, as it requires policy decisions by the Ministry.

Agricultural Statistics Repository

- Develop and maintain a repository of agricultural statistics
- Search for Namibian sources of agricultural statistics
- Search for useful agricultural statistics from outside Namibia, recording and publishing these sources and the Internet links, where available
- Produce and maintain an index of producers and sources of agricultural statistics, including Internet links
- Compile and maintain an index of agricultural statistics, data and research publications an projects
- Actively collect statistics from the different producers of statistics, maintaining good working relationships with the producers and visiting their offices when required
- Exchange statistics with national and international agencies and organisations
- Integrate statistics from different sources or representing different agricultural sectors, for example, the commercial and communal farmers
- Obtain and hold hardcopies of statistics (reports, etc.) wherever possible
- Obtain and store electronic copies of statistics (reports, etc.)
- Convert new hardcopy documents to electronic versions, if they cannot also be obtained in electronic form
- Extract statistical information from hardcopy and electronic documents, for example, statistical tables, graphs and descriptions of statistics from annual reports
- Convert electronic formats to 'standard' formats, preferably as PDF, Excel and MS Word documents, that is, each document being available in all three formats
- Produce compact discs with agricultural statistics
- Provide meta data to CBS (CBS should compile and hold a set of meta data, and include it in the General Data Dissemination System of the International Monetary Fund (GDDS)
- Archive agricultural statistics (in an agriculture archive and at the national archives)
- Facilitate and encourage the exchange of data between different producers of data and between producers and users

Agricultural Statistics Internet Service

- Develop and maintain a website of agricultural statistics with particular attention to an effective structure suitable for finding statistics required by the user, and including a good search facility
- Update the website regularly: some statistics, such as market prices of meat and controlled crops, may require daily updates, others weekly, monthly or annually – depending on the system, it might be sufficient to post new files to web-server
- Make statistical documents in electronic form (see Agricultural Statistics Repository) available on website for downloading – preferably as PDF, Excel and MS Word documents, that is, each document being available in all three formats
- Provide links to other relevant national and international websites
- Provide the functions of a webmaster
- Host the website
Agricultural Statistical (Management) Information System

- Provide an agricultural statistical information service to all users of agricultural statistics within and outside the MAWRD, providing for different user groups in terms of suitable media:
  - Illiterate users, in most cases requiring assistance or advice for applying the information to their farming enterprises, and who might not understand English
  - Literate users – not necessarily literate in English – requiring assistance with the interpretation of statistics and market information, and with the application of the information to their farming enterprises
  - Literate users able to interpret and utilise agricultural statistics and economic and market information, but without Internet access
  - Users with access to the Internet:
    - slow or limited Internet access (able to obtain limited volumes of information through the Internet, in some cases without regular access to the Internet)
    - fast and regular Internet access (able to obtain all required information through the Internet)
- Users requiring comprehensive statistics on Compact Disk (CD), normally for further processing and analysis of the statistics
- Maintain a register of users of agricultural statistics
- Record requests for agricultural statistics
- Continuously identify gaps in agricultural statistics
- Produce compilations of statistics, such as the Agricultural Statistics Bulletin, and liaise with producers of related publications in the MAWRD, such as Agricultural Price Watch, Mahangu News, Crop Assessment Report and Food Security Bulletin – produce additional statistics, including publications particularly aimed at the needs of farmers (agricultural producers)
- Dissemination of statistics
- Provide statistics to media
- Compile and provide statistics on special request
- Provide a reproduction service for providing hardcopies of statistics to users
- Make the Agricultural Statistical (Management) Information System known to potential users within and outside Ministry

Agricultural Statistical Planning

- Serve as secretariat of the Agriculture Statistics (User-Producer) Committee or Forum to be established: organise meetings, keep the committee members informed, maintain a register of (potential) members, provide administrative and management services to committee or forum
- Take appropriate steps to ensure that gaps in agricultural statistics get filled
- Conduct surveys in collaboration with the CBS to fill gaps in statistics (where the gap cannot be filled in a different manner)
- Cooperate with closely related services within DoP, the MAWRD in general, CBS and other organizations
- Set standards and reporting formats for agricultural statistics in collaboration with the Agricultural Statistics Repository and the Agricultural Statistical (Management) Information Service: ensure that statistics produced by different sources are comparable, and that categories and terminologies are standardised
- Endorse statistical methodologies (in collaboration with the CBS, or alternatively request the CBS to provide the service)
- Data analysis and interpretation
- Conduct policy analyses and contribute towards the development of policy advice
- Participate in planning activities of the DoP
- Capacity building: take appropriate actions to have staff of the Division be trained adequately and appropriately

2 It would not be feasible, and serve no purpose, to set data formats for the different databases containing the data from which the statistics are produced.

Annex G: Functions and tasks of an Agricultural Statistical Service
to be performed in the medium- and long-term
It is recommended that the following functions and the staff involved should be transferred to the DoP:

Conduct the Agricultural Census and Annual Agricultural Survey (to be expanded to all regions, covering communal and commercial agriculture, and incorporating essential parts of Farm-Household Economics Survey)

**Other related services within the DoP**

- Marketing and Production Economics (Enterprise Budget, Price Watch)
- Namibia Early Warning and Food Information System
- Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS)

**CBS**

- Compile and maintain the agricultural statistics meta data in collaboration with the Agricultural Statistics Repository, and incorporate the meta data in the GDDS
- Provide professional statistical support services and verify statistical methodologies