



# REGIONAL EARLY WARNING SYSTEM FOR FOOD SECURITY

## TECHNICAL HANDBOOK ON ANALYTICAL CONTENT OF MONTHLY FOOD SECURITY BULLETINS

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## TABLE OF CONTENT

PREFACE.....	4
I.0 INTRODUCTION.....	5
2.0 THE FOOD SECURITY SITUATION AND OUTLOOK.....	7
2.1 Agro-meteorological and Crop Conditions .....	7
2.2 Crop Forecasts .....	9
2.3 Assessment of the Current Food Security Situation .....	11
2.4 Outlook for the Next Marketing Year.....	12
2.5 The Monthly Food Balance Model (MFBM).....	14
3.0 ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES .....	16
3.1 Emergency Relief Programmes .....	16
3.2 Other Feeding Programmes.....	16
3.3 Data Collection and Analysis .....	16
4.0 AVAILABILITY OF FARM INPUTS AND SERVICES .....	17
4.1 Requirements & Availability of Farm Inputs.....	17
4.2 Seasonal Farm Credit.....	17
4.3 Seed and Fertiliser Requirements .....	18
4.4 Crop Procurement, Storage and Transport Facilities .....	18
5.0 MARKETING INFORMATION .....	20
5.1 Market Developments .....	20
5.2 Price Information .....	21
6.0 HOUSEHOLD FOOD SECURITY .....	23
<u>APPENDIX:</u>	
APPENDIX 1: Calendar of Topics included in the Monthly Food Security Bulletins	25
APPENDIX 2: List of Topics included in the Monthly Food Security Bulletins.....	27

## PREFACE

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This is one of several Technical Handbooks produced by the SADC Regional Early Warning Unit in the mid-1990, covering a wide range of topics related to the operation of the National Early Warning Systems (NEWS). Originally published in 1994, several of these handbooks have recently been revised and translated into French and Portuguese by the FANR Directorate to facilitate use by all SADC Member States. This particular volume deals with the **Preparation of the Food Security Bulletins**.

Most SADC countries, currently, have operational National Early Warning Systems in place. Many of these have already developed their own handbooks for the preparation of food security bulletins, which are published on a monthly basis. Although staff have been trained in the collection, analysis and dissemination of early warning information for food security, there is still a need for improved timing as well as expanding the collection and analysis of the various types of information which are relevant to decision makers in Government and the donor community.

This handbook provides clarity on how to improve upon the types of information to be collected and the required analysis. It is primarily designed for use by the national staff in the SADC NEWUs with a view to facilitate and improve the quality of their work. It is particularly hoped that the handbook will assist the national systems in generating timely and appropriate responses regarding food security issues. However, it should be noted that this handbook is only a brief guideline especially important for those NEWUs who are developing their own country specific handbooks.

This technical handbook was originally published in October 1994 by Mr. Yeb G. Hiemstra, then a Senior Economist under the FAO project GCPS/RAF/270/DEN which was providing financial and technical support to the SADC REWU, based in Harare, Zimbabwe. This revised publication has been edited by Bentry P. Chaura, Senior Programme Officer – Food Security. The re-typing of the publication was done by Thapelo Modise, FANR Secretary.

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**Director,  
SADC Food, Agriculture and Natural Resources (FANR) Directorate,  
October 2009.**

## **I.0 INTRODUCTION**

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The production of Food Security Bulletins in the SADC Region is now well established. Most staff of the National Early Warning Systems (NEWS) in the region have been trained in the preparation of these bulletins. Similarly, staffs in the Directorate of Food, Agriculture and Natural Resources in Gaborone are fully skilled in the preparation of food security bulletins, and are routinely publishing SADC Food Security Updates.

Most of the training in bulletin writing at the national level so far, however, has focused on the presentation and content of the bulletins, and less on the collection and seasonality of the seasonally variable information. At the regional level, the SADC FANR Directorate collects food security information from the NEWS through monthly requests which are sent out by cable, the contents of which vary according to the month of the year. Although these monthly requests take account of the type of food security information relevant for that particular month, the seasonal variation of the types of information and analysis for both the national and regional bulletins had not been clearly defined before.

Decision makers, particularly in the government and donor community need to be informed well in advance, for example, about food crop production and demand, especially in case of failing rains which may result in food deficits. The decision makers need such information in time, in order to be able to arrange imports required for a continuous supply of food. They also need to be informed about the availability of food, especially cereals, both from domestic supplies and imports, in any one month. Information regarding the monthly marketing of cereals, including stock and price levels, is also essential. The Monthly Food Balance Models (MFBM), introduced in the various NEWUs in July 1994, greatly enhances the capability in the SADC region to monitor the food security on a monthly basis.

Marketing and trade of cereals will be facilitated if prices, both wholesale and retail food prices, and farm input prices are collected and published in a timely manner. Sufficient liquidity in the marketing systems and adequate storage facilities will also foster the marketing of cereals. Pertinent information on marketing, therefore, need to be collected, analysed and disseminated to the decision makers. The quantification and timing of the national requirements of farm inputs, such as fertilizers, need to be addressed by the NEWS and made available to decision makers well before the farmer actually goes out to procure these in the local store.

Information of food security is not complete if it does not include an analysis of the situation at the community and household levels. In a number of SADC countries, systems have been, or are being, established to monitor community and household food security, nutrition and health conditions, with a view to promote actions to redress both ephemeral or chronic situations of food

insecurity. The information generated by such systems should be included in the monthly food security bulletins, for the purpose of reinforcing the efforts made by all institutions in promoting food security at all levels of society.

The information generated needs to be communicated to decision makers through face to face contact of NEWS staff, through memoranda, and through the monthly food security bulletins. This manual is a first attempt to better define various types of food security information and analysis in the monthly bulletins, required in the course of the year, as well as to provide guidelines regarding information to be sent to the FANR Directorate each month for inclusion in the regional food security bulletins. Rather than waiting for the monthly telex to arrive, the NEWS now can plan their contributions to Directorate in a better manner.

The manual consists of six chapters, supplemented by two summary appendices outlining the timing of the subjects to be covered in the bulletin. **Appendix 1** lists all the food security subjects to be included in the bulletin during the various months of the year. **Appendix 2** consists of a list of subjects for each month of the year. These subjects are found in paragraph by paragraph in the main text. In order to determine the information and analysis applicable for a particular month, the reader should look up the sub-table found in **Appendix 2** for that month, look at each item in that sub-table, and refer to the details of the subject contained in the respective paragraphs of the main text.

## 2.0 THE FOOD SECURITY SITUATION AND OUTLOOK

### 2.1 Agro-meteorological and Crop Conditions

#### 2.1.1 Crop-weather Conditions

Information regarding **the weather and crop conditions** is usually collected by the Department of Meteorology (or equivalent) on a regular basis during the period of **October to April**. This includes **rainfall data** and indication on **soil moisture**. In most instances this information is collected and reported on agro-meteorological crop cards filled in throughout the country by agro-meteorological observers (officers and volunteers trained by the Meteorological Department or NEWS). A decadal Crop-weather or Agro-meteorological Bulletin is produced once every ten days in most SADC countries, with the aggregated results and analysis of these individual cards, thus generating three of such reports every month.

During the period **October to April**, the NEWU is expected **every month** to **summarize the agro-meteorological information** presented in the three ten-day agro-meteorological bulletins, (covering one month period), for presentation in the monthly food security bulletin. This includes text, maps and graphs on agro-meteorological phenomena of interest to the readers of the food security bulletin.

The agro-met bulletins usually contain detailed information, provided by meteorological stations around the country, on rainfall in the last ten days, the number of rainy days, a comparison with long term averages, as well as the cumulative rainfall since the beginning of the season, e.g. 1 July.

The information can also be shown in **maps**, i.e. one map showing the decadal rainfall in the country, a second map the total of cumulative rainfall in millimetres (mm), and a third the rainfall departure from normal since the beginning of the season (i.e. above, below or normal). The decadal report also contains a narrative with an analysis of the data and an outlook for the next 10 – 14 days.

In the decadal agro-met reports emphasis should be placed on assessing the implications of weather phenomena on the crop conditions, and of crop conditions on expected yields. Indications of chances of recovery of the crops e.g. in case of a dip in rainfall or pest and disease infestations should be included.

#### 2.1.2 Remote Sensing

During the period **October to April** the ten-day agrometereological and monthly food security bulletins should contain information generated by

satellite on (i) the Normalized Difference Vegetation Index (**NDVI**), which provides satellite imagery on the change in bio-mass, as a result of changes in moisture availability, and (ii) the Rain Cloud Duration (**RCD**), which provides indications of possible rainfall in areas not covered by meteorological ground observations. However, the duration of applying remote sensing can be expanded, and the NEWUs, therefore, are encouraged to closely liaise with Meteorological Departments in their countries and the SADC FANR Directorate in Gaborone to ensure that the most up-to-date products are used. For example, in some countries reports on NDVI may even extend into June, or the whole year round.

### 2.1.3 Status of Land Preparation

During the period **September to January** the monthly food security bulletin (or monthly update in some countries) should contain an assessment of the **status of land preparation** in the country, any constraints in this, and possible ways to overcome any problems. In countries in the northern part of the SADC region, land preparation normally commences later than in the southern parts, so reporting on this activity may also start later.

### 2.1.4 Status of Planting

At the same time similar assessments should be made of progress made in the **planting** of food crops, which usually takes place in the period October to February, including any constraints faced and possible ways to overcome any problems.

### 2.1.5 Assessment of Crop Conditions

An assessment should also be made regarding **crop conditions**, during the period **October to April**, in particular regarding the impact of the weather on crop growth and its consequences, the phenological stages and conditions of staple cereal crops in the various cropping zones in the country, especially maize, showing also any significant differences within the country. Any indication of drought or flooding should be included in the assessment, showing the areas affected and the reduction in crop yields and total production.

### 2.1.6 Assessment of Pests and Diseases

An assessment of any **pest and disease infestations** in food crops, such as outbreaks of army worms or red locusts should also be presented in the decadal crop-weather bulletin and the monthly food security bulletin, during the period **October to April**. In the event of any infestations, an indication should be provided of the estimated area (in hectares) affected, and possibly an estimate of any yield and production decrease. The assessment and reporting should also include any **migratory pest**, such as locusts, covering the period **October to June**. An indication should also be provided whether

any measures have been taken or are planned to contain these pests and diseases.

## 2.2 Crop Forecasts

### 2.2.1 Purpose and Methodology

Crop forecasting allows government authorities well in advance of the harvesting, i.e. some three to four months, to assess the food security situation in the country, and to modify any current import or export programme in light of early forecasts. It also allows to put in place more precise marketing arrangements based on more accurate expected harvest figures. This is one of the most important tasks of the NEWS.

Two main methodologies have been developed in the NEWS for crop yield forecasting, i.e. (i) the **statistical crop surveys**, based on statistically valid sampling or complete enumeration; these surveys cover in most cases all crops grown in a country with a significant nutritional or commercial value, in most cases also cash crops, such as cotton or tobacco; and (ii) the **agro-meteorological modelling**, which permits adjustments to be made in maize yields every ten days, based on the crop water satisfaction index.

**Statistical surveys** are being conducted in some SADC countries to forecast and estimate crop areas and production. These surveys may also include indications about expected and estimated sales and retentions of crops. It should, however, be noted that in most Member States, semi-statistical methods are used especially for forecasting production before harvest.

The results of these surveys are to be processed, analysed, and published at an early opportunity in a summarised form in the monthly food security bulletin.

### 2.2.2 Assessment of Planted Areas

An **assessment of the areas planted** to the various (food) crops, in particular cereals, should be made in the period **October to February** every year. This information is currently obtained through statistical surveys in most Member States.

### 2.2.3 Preliminary Crop Production Forecasts through Surveys

In the various provinces or regions of the country **preliminary crop production forecasts** should be made every year, generally during the period **December to March** especially for food crops such as cereals, i.e. maize, wheat rice, sorghum and millet, but where possible also root crops (cassava and sweet potatoes) and bananas. These latter crops play an important nutritional and cash role in the northern SADC countries, and efforts should therefore be made to include those in the estimates. This survey concerns the estimated areas under cultivation (in hectares), expected

production (in metric tonnes) and yields (in kg per ha), and expected sales and retentions (in metric tonnes); comparison of these data with last two years in table form, including percentage changes. These data are to be derived from crop sample surveys usually conducted by the Ministry of Agriculture or the Central Statistics Office. Over the last few years most NEWS have developed procedures and manuals regarding these surveys. Results of these surveys should be vetted by the respective national early warning or crop forecasting committees, before being included in the food security bulletin.

#### **2.2.4 Production Forecasts through Agro-met Yield Modelling**

Most NEWUs have developed and established **agro-meteorological yield models for cereals**, in particular maize and sorghum, which permit **maize yield forecast** to be made during the crop growing season, i.e. usually from **January to April**, based on the crop water satisfaction index. Three different levels are in use in the application of the models, depending on the amount of historical data available and the statistical methods applied. A number of these models are still under development, and are in any case subject to continuous calibration, as more recent yield data become available.

During the cereal growing period, the agro-meteorological models are expected to regularly allow adjustments to be made in expected yields, and hence total production, which should be reflected in the monthly food security bulletins. These models are especially useful in-between the preliminary and final crop production forecasts, conducted through statistical surveys, say in January/February and April/May, or in situations when only area estimates are made.

#### **2.2.5 Final Crop Forecasts**

Statistical surveys to arrive at the final forecasts of crop production for the next marketing season are usually conducted during the period **March to May** every year. The results of these surveys should be published as soon as possible in the Bulletin, following verification by the various early warning or crop forecasting committees.

#### **2.2.6 Harvest/Post Harvest Estimates**

In some instances there may be possibilities to conduct harvest or post harvest surveys for the purpose of making **post harvest estimates**. Such an exercise is normally expected to take place during the period **August to October** each year. In a number of countries, however, post harvest estimates are not made, and consequently, the final crop forecasts become the official crop estimates for that particular marketing year.

## 2.3 Assessment of the Current Food Security Situation

### 2.3.1 Update of Annual Food Balance Sheet

**Every month**, an update of the **Annual Food Balance Sheet (AFBS)** for the current marketing year needs to be produced by the NEWS for each cereal and a total for all cereals. **Table 1** shows the various components of a standard AFBS. The exact structure of the AFBS may vary slightly from country to country.

The opening stocks, expected or estimated production, domestic utilization requirements and desired monitored stocks are established at the start of the marketing season, e.g. on 1 May and normally do not change the remainder of the marketing season, unless there are major reasons for doing so.

The monthly update concerns mostly changes in the cereal import and export

**Table 1: The Annual Food Balance Sheet**

#### **Domestic Availability**

Opening Stocks

- Monitored
- Unmonitored

Gross Harvest

#### **Domestic Requirements**

- Food Use
- Feed Use
- Other Uses & Losses

#### **Desired Stocks**

#### **Surplus (+)/Deficit (-)**

#### **Net Imports**

Imports

- Commercial
  - Received
  - Expected
- Food Aid
  - Received
  - Expected

Exports

- Already Shipped
- Still to be Shipped

#### **Import Gap**

#### **Closing Stocks**

#### **Current Stocks**

situation, and current and expected end-of-marketing-year stock levels, as follows:

- Any imports (commercial and food aid) received and any exports made since the beginning of the current marketing year (e.g. before 1 May), in metric tonnes;
- Any imports (commercial and food aid), in metric tonnes, realistically expected to be delivered in the country, and any exports expected to be effected before the end of the current marketing year (e.g. before 30 April), taking into account shipping schedules and any logistical constraints along road/rail corridors; and
- Cereal stock levels should be listed (both individual cereals as well as total) in metric tonnes at the end of each month under review, preferably also disaggregated by province or region in a separate table. Target carry-over stock requirements at the end of the current marketing year should also be included.

### 2.3.2 Analysis of the Current Food Security Situation

**Every month**, a critical analysis in narrative form should be made of the current food security situation, particularly regarding any cereal surpluses or deficits shown in the updated Food balance sheet, including suggestions for policy makers, with a view to achieve immediate improvements. This includes:

- An assessment of the performance of delivery rates of imports, both commercial and food aid, especially in comparison with previous months should be included; similarly, an assessment of the progress made in export commitments and deliveries is to be made.
- Every month, realistic assessment should be made of the import and export situation till the end of the current marketing season with a view to advise the Government on the need to import any cereals, including its timing, (bearing in mind that the lead time in most SADC countries to mobilize imports is around four to six months), and on any possibilities for exports.
- Projections for any imports or exports should be made in light of any surpluses or deficits, established on the basis of expected demand and supply of cereals during the current marketing year. From January onwards in most SADC countries, the supply side of the national food security equation becomes clearer, since crop surveys generate more precise data on estimated planted areas and expected production.

## 2.4 Outlook for the Next Marketing Year

### 2.4.1 General Outlook

During the period **January to April** an assessment should be made of the outlook for food security in the next marketing year, starting around April or May. During **January to February**, this requires a preliminary assessment, in narrative form, of the expected cereal supply and demand situation, taking into account estimated areas under food crops, including cereals, and the expected production based on current crop conditions, consumption requirements, marketing, imports and exports.

During the period **March to April** (in most countries in the region) a **preliminary Annual Food Balance Sheet (AFBS)**, for the next marketing year should be produced. This should be done as soon as preliminary cereal production figures from the crop surveys or crop modelling, as the case may be, have been collected and analysed.

## 2.4.2 Preparation of Preliminary Annual Food Balance Sheet

A first balance sheet should be prepared in **March** or soon after, and be **updated monthly**. It has the same format as the table produced for the **current** marketing year, and it should include the following information:

- Any imports committed (commercial and food aid), and exports which are expected to be delivered in the **next** marketing season.
- Cereal availability for the next marketing year on the basis of projected opening stocks, (e.g. on 1 May), and the production forecasts of the current cropping season.
- Projected total requirements for cereals, according to each type, for the next cereal marketing year. This includes:
  - (i) human consumption;
  - (ii) seeds, based on projected or actual plantings;
  - (iii) breweries; and
  - (iv) any post harvest losses.

A preliminary analysis of the expected food security situation in the next marketing season should be made, including possible policy implications regarding imports and exports, as well as alerts which call for specific actions to improve food security.

For example, a spell of low rainfall, particularly during December, January or February, is expected to drastically reduce expected cereals production and availability. In light of this, any current cereal export programmes should be scrutinized, as these may have to be reduced or halted, depending on the seriousness of the situation.

On the other hand, if during February or March it becomes clear that a good harvest is expected and if the Government is still in the process of arranging imports which would turn out to be beyond its needs, there should be a message to the Government urging it to cease any such operation.

## 2.5 The Monthly Food Balance Model (MFBM)

### 2.5.1 Dynamics of Food Security

An Annual Food Balance Sheet (AFBS) is most useful just before and just after the start of the marketing year, since it shows the cereal supply and demand situation for the new marketing year, based on the final crop forecasts (or estimates, as the case may be) and updated cereal demand figures. Towards the end of the marketing season, the AFBS is looking back to the current marketing year, but does, however, not permit to make a prognosis for the year ahead. Thus, as the year progresses, the AFBS is looking back to the current marketing year, but does, however, not permit to make a prognosis for the year ahead. Thus, as the year progresses, the AFBS becomes less useful as an analytical tool for planning, e.g. imports or exports.

As seen in the previous chapter, during the period before the actual marketing season commences, i.e. from January to April or May, a preliminary AFBS is usually prepared, which shows the cereal marketing situation as it might look in the next marketing year. As the year advances and more precise data become available on harvest prospects, cereal requirements (based on, e.g. an increase in population), stocks and trade, the preliminary AFBS is adjusted. Once the marketing season has started, minor adjustments are made monthly to **actual** stocks, imports, and exports, as well as to the levels expected for the **remainder** of the marketing season.

While the AFBS is useful in determining the overall cereal situation, both in the current and the forthcoming marketing year, it offers limited possibilities for continuous analysis of the cereal supply situation **throughout** the year, as it does not show the dynamics of food stocks, supplies and demand on, for example monthly basis, which becomes necessary as the marketing year progresses. It is not only important to determine the **magnitude** of any imports required or possible exports, but also their proper **timing**.

In fact, despite the information generated by the preliminary AFBS, there is still no information on the precise occurrence of any surpluses or deficits in the marketing system. One example where the AFBS is inadequate for planning purposes is when at the beginning of the marketing season, a maize deficit is projected, which is presented as one single quantity. This deficit may spread over one or more months, depending on monthly supply and requirements figures. However, since it may take between four and six months to request food aid and/or purchase and deliver grain from e.g. the USA, it is important to determine when and in which quantity the shortfall is expected to occur, so that the orders (or request for food aid) can be made in time.

### 2.5.2 Purpose of Monthly Food Balance Model (MFBM)

The addition of a time dimension to the AFBS has resulted in the development of a Monthly Food Balance Model (MFBM), generated by a computer spreadsheet based **Monthly Food Balance Model**, which is an additional tool for planning and implementing food security measures. The elements of the two balance sheets are the same, the main difference between the two being the inclusion of monthly columns in the MFBM and its forward rolling figures, i.e. all monthly data concern **projections** for the **next** twelve months, whereby the current month is always shown in the first column. It therefore cuts across marketing years, and the only occasion when the time frames of the two balance sheets coincide is during the first month of the marketing year.

### 2.5.3 Update on MFBM

The **Monthly Food Balance Model (MFBM)** requires the user to **update** the computerised table **every month**, so that it always shows the cereal supply and demand situation for the next twelve months.

Detailed guidelines on the definition of the various components of the Monthly Food Balance Model, which uses a predesigned Lotus 123R31 spreadsheet, and the use of the model are provided in the REWU manual entitled “**Food Balance Sheet Handbook, Volume II: The Monthly Food Balance Model**”. **The Model, however, has not been updated to latest versions of Spreadsheets. The FANR Directorate has to find resources to do this as soon as possible.**

### 2.5.4 Analysis of Monthly Food Security Dynamics

The **monthly analysis** of the data contained in the MFBM is as important as the data itself. Planners and decision makers need to be presented with clearly formulated conclusions and suggestions emanating from the monthly table, particularly regarding advice on any periods when deficits or surpluses of cereals may occur, the quantities involved, and the most appropriate timing for any imports or exports.

### 3.0 ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES

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#### 3.1 Emergency Relief Programmes

**Every month**, an assessment of the present status of **any emergency relief programme(s)** should be made, especially regarding the effects of, for example, drought, war situation, floods or otherwise. Information is usually obtained from the relief agencies, e.g. the UN World Food Programme (WFP).

#### 3.2 Other Feeding Programmes

Similarly, assessments of the nature, magnitude, effectiveness and effects of other feeding programmes in the country should be made. These may include target food aid, such as food or cash-for-work programmes, school or vulnerable group feeding, feeding of settlers in settlement schemes, or any other non-emergency feeding programmes.

#### 3.3 Data Collection and Analysis

Data need to be collected on the following items:

- the number and types of recipients covered, e.g. rural households, school children, or refugees;
- the type of recipients, the types of commodities and amounts distributed during the month under review (in metric tonnes);
- the major Government entities and NGOs (state the role of each);
- an assessment of the adequacy of the relief and feeding programmes;
- an assessment of whether there is an effective process of screening participants; and
- an indication of whether the feeding programme is likely to be slowed down at harvest time and cereals become available on the market.

Of crucial importance is an assessment and analysis of any possible disincentives to food crop production arising from the distribution of food aid. The dumping of large amounts of cereals can substantially lower producer prices and may result in farmers not finding it economically viable to continue growing cereals, and thus creating lower production levels over time. Moreover, an assessment needs to be made regarding the existence of any dependency on food arising from the feeding programmes.

## 4.0 AVAILABILITY OF FARM INPUTS AND SERVICES

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### 4.1 Requirements & Availability of Farm Inputs

In liberalised open economies, such as the one increasingly emerging in the SADC region, where the role of the private sector is much greater than centrally planned or heavily regulated economies, a role of the government, and the NEWS in particular, would be to gather the information needed to facilitate the process of input and output marketing, which largely involves the private sector. This calls for action to coordinate and ensure information flow on planting, growing, harvesting and marketing of agricultural produce, especially where it concerns food crops.

In most early warning systems, there is a greater need to collect and disseminate pertinent information on the requirements, availability and accessibility of farm inputs and agricultural services to decision makers, even though it may put a strain on the staff and financial resources of the NEWS. In addressing this issue, it is imperative to include an analysis of the effect or impact which particular input supply or marketing situations might have on food security. For example, if there is insufficient transport or storage available for maize handling, the effect on availability of maize in urban areas and on prices may be assessed.

An assessment of the **requirements and availability of farm services and inputs**, as they are applicable and relevant to both the commercial and small scale farming sector, should be made in those months where such information is most effective for decision makers. This includes credit (seasonal loans) for seeds, fertilizers and chemicals, as well as financing of traders for the purchase of crops at the time of harvesting; seeds and fertilisers; draught power (animals and tractors); hand tools and implements; grain bags; and transport for grain haulage and storage facilities; financial requirements for procuring, transporting, and storing the harvest; and monitoring physical and financial marketing facilities.

Such information needs to be communicated through the monthly food security bulletins, but at the same time through memoranda and meeting between the NEWU and the decision makers.

### 4.2 Seasonal Farm Credit

In situations where farm inputs are centrally financed and distributed by authorities under the control of the Government, it is important that monthly demand projections are made, i.e. during the period **July to December**, for the amount of **seasonal credit** required to finance the purchase and distribution of farm inputs, such as seeds, fertilisers, chemicals, farm

implements and tools, with a view to mobilize financial resources and organise distribution channels in time for their use. Assessment of availability of seasonal credit should be made at the same time and any discrepancies in demand and supply of farm credit be brought to the attention of decision makers.

The financial lending institutions involved in seasonal farm credit should be requested in the period **July to December** to supply data and information on the **progress made in disbursements of farm finance** for the procurement of farm inputs, with a view to identify any bottlenecks in the provision of credit and to seek ways and means to overcome these. Especially in the event of a preceding drought, when farmers are not able to repay their seasonal crop loans, and therefore do not qualify for new loans, it is important to ensure that solutions are to be found to enable farmers to successfully seek new loans.

### 4.3 Seed and Fertiliser Requirements

An assessment of the **requirement and availability of seeds and fertilisers**, especially for food crops, should be made on a monthly basis during the six months leading up to planting, usually **July to December**. A detailed account of the availability in the country of the varieties of seeds for the major food crops should be given, (according to the companies involved in seed production, trade and distribution of the various seeds) including stocks held, any imports expected, estimated production and expected sales for the forthcoming cropping season. Similarly, such information should be provided for fertilisers.

Progress on the **distribution of seeds and fertilisers** should be monitored and reported upon during the period when farmers use such inputs, mostly in the period **September to January**.

In an economy where private companies play an increasing role in the trade of seeds and fertilisers, it calls for a fairly sophisticated data collection system.

### 4.4 Crop Procurement, Storage and Transport Facilities

Assessment and regular updates need to be made of the **physical requirements and available facilities for transporting and storing the newly harvested grain**, generally in the period **January to May**. This includes the estimated requirements and availability of grain bags, tarpaulins, storage facilities, (i.e. from on-farm and village level storage to silos for strategic grain reserves operated by e.g. a Grain Marketing Board), and transport (needs and availability of trucks, status of road conditions, needs and availability of rail wagons, particularly important for cereals imports and exports).

Furthermore, assessments should be made during **January to May** of the **financial requirements and availability of funds for purchasing the newly**

**harvested cereals crops**, i.e. an assessment of the liquidity of the marketing system.

From **May to December**, i.e. during the peak of the marketing season, the **availability of physical and financial facilities** should be closely **monitored** by the NEWS. In the event of serious constraints regarding one or more of the above items, efforts should be made to suggest feasible solutions to these problems. In practice, any proposals should be communicated directly to the decision maker(s) involved in the matter.

It is important that the above information also be presented and analysed at **sub-national** level, with a view to identify, to the extent possible, any bottlenecks in the distribution of farm inputs or services within the country. The sources of this information are usually scattered, and any information should be therefore be obtained from all those entities involved.

## 5.0 MARKETING INFORMATION

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There are various types of market information which provide indications about the national and sub-national food security situation. Relevant information to be collected and reported upon by the NEWU concerns the following:

- information on market developments;
- wholesale food price information at urban markets;
- retail food price information at both rural and urban markets; and
- prices of farm inputs and services.

### 5.1 Market Developments

Information about the market through which the food staples move from producers and traders to consumers is important to Government and other institutions concerned with food security. It permits the creation of effective policies and legislation; facilitates the strengthening or creation of marketing support services; and allows the improvement of marketing infrastructure. In generating relevant market information for this purpose, it is important to gain a thorough understanding of the marketing channels through which the food commodities are traded.

In recent years most of SADC countries have experienced fundamental changes in their agricultural marketing systems, as a result of a move towards open economies. This also affects the way food crops are finding their way from the producer to the consumer, particularly regarding marketing channels used and price structures. This process is expected to continue for sometime in the future. With liberalised food markets, marketing channels are expected to multiply and diversify, involving an increased number of participants in the marketing process.

An effective National Early Warning System needs to keep abreast of all food marketing developments, and its staff should therefore visit the market places regularly and be in constant touch with producers, traders and consumers. Regular reports should be submitted to Government decision and policy makers, traders and the general public on market developments, ideally generated by a marketing information system established for this purpose.

In some SADC countries, there is already an effective agricultural marketing information system, with established procedures and routines regarding collection, analysis and dissemination of relevant food marketing information. Where such an information system does not (yet) exist, it is the NEWU that

should take leadership in this area with regard to food security related information.

In order to facilitate this process, the REWU/FAO commissioned the preparation of specific guidelines for reporting on market information for early warning for food security, based on experiences from Tanzania and Zambia, two countries in the region with substantial knowledge in this food security aspect. For further details on food price collection and analysis, the reader is therefore referred to the publication; "Market information for Early Warning", which is part of the series of regional training manuals published by the REWU/FAO. The following paragraphs elaborate on the types of price information which the NEWS are encouraged to collect.

## 5.2 Price Information

Information should be collected on two types of food prices, i.e. wholesale and retail prices. In addition to this, it is useful to collect prices on farm inputs and services, which should be analysed and disseminated in the shortest possible time, in order to be of any use to the Government, traders, farmers and consumers.

**Wholesale food prices** are of particular interest and use to the Government and to traders and they usually involve large units (tonne or bag). The wholesale price for the Agricultural Marketing Information System (AMIS) usually consists of the price at the first transaction level; that is, the price per unit which the trader receives at the urban market, after he has brought the product from the rural area.

Information on **retail food prices** provides indications about the actual demand and supply positions in a free market with which the consumer is confronted. Therefore the retail price can be used to monitor national and local food security developments signalled by other food security situations, which is useful for the Government, consumers, traders, farmers, and development agencies. They can be used to confirm food security developments signalled by other food security indicators, such as low stock levels in certain areas resulting in higher prices. More importantly, it can point to developments not yet shown by other food security indicators, such as high food price levels in certain areas, as a result of factors not immediately apparent, such as depleted stock levels not replenished because of, for example, transport problems.

It is important to provide this information on a **regular (weekly and monthly)** basis in market reports, showing the main items and their prices (expressed in, for example, Kwacha/kg) in various parts of the country, for example, by province and/or district, accompanied by a thorough analysis of the data. In addition to tables used in the presentation of such information, the NEWS (including the NEWU itself and/or collaborating institutions) are encouraged to use maps, for example to show the areas of deficits or surpluses of cereals

within a country, e.g. in certain provinces, and also perhaps price differentials to indicate actual or potential possibilities for cross border trade. The application of a Geographical Information System (GIS) also facilitates the understanding of early warning information of this type.

Price data and their analysis should be communicated to government and other interested parties in the form of marketing bulletins supplemented by e.g. a weekly newspaper, column, radio and television. The data need to be published in table form, accompanied by a narrative, including an analysis, as mentioned above.

The NEWS should also make attempts to apply indexing to food prices, which will facilitate the establishment of time series and carrying out trend analysis. For details please refer to the marketing manual mentioned above.

In addition to food prices, it is useful to also collect prices of other items, such as **farm inputs and services** (prices of fertilizers, seeds, chemicals, equipment and transport charges for example). This will benefit the Government, traders and producers.

The source of this information can be the Agriculture Marketing Department, the Central Statistical Office, trading or manufacturing companies. Where no systems of regular or routine price data collection exist, the NEWS should be instrumental in establishing such a system, perhaps in collaboration with an appropriate government department or unit, which can be entrusted to carry out this task. As this would involve expenses, an adequate annual budget needs to be set aside for this, and personnel, vehicles and other equipment to be mobilised.

If there is a situation where prices are subject to drastic and frequent changes every month, there may be a need to make a special analysis of the reasons for these frequent changes (e.g. a high inflation situation or a change in government price or subsidy policies), the implications of this on food security, in particular at the household level, and the future outlook.

## 6.0 HOUSEHOLD FOOD SECURITY

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In a number of countries, systems exist for the monitoring of food security, nutrition and health at household level, such as in Malawi, Zambia, Zimbabwe, Swaziland and Mozambique, while in others these are likely to be established. The data generated by the surveys of the monitoring system would primarily be used for flagging deteriorating food security, nutrition and health situations to government decision makers in various ministries, relief agencies, and other organisations involved or interested in the physical well-being of the population in general.

Reports containing the findings and recommendations emanating from the surveys are usually generated on a regular basis by the institutions involved, for example, the Ministries of Agriculture or Health, the Food and Nutrition Centre, Central Statistical Office, or others, as the case may be, and supplemented by ad-hoc reports. Narratives should accompany the various tables containing the raw data. It is useful if these are subject to debate and endorsement by a multidisciplinary task force, before being submitted to Government decision makers.

**Every month** summaries of these reports should be included in the monthly food security bulletins, with a view to place the **food security situation at household level in a macro context**, and to further reinforce the action proposals submitted in the technical survey report.

Nutrition, health, price and income levels are closely linked and they are major factors in determining the capability of households and communities to ensure food security and to be in a state of physical well being. Attempts should therefore be made to analyse the interaction between these elements in an effort to indentify underlying causes of deteriorating situations of food insecurity, as manifested by malnutrition and high incidences of diseases. Furthermore, it is useful to assess any strategies which household may have with regard to ways to cope with household insecurity and to make suggestions for possible actions to overcome adverse situations and conditions identified through the surveys.

The following types of data may be collected in a household food security, nutrition and health monitoring system:

- data from a sample of representative rural and urban households and communities in all or selected areas of the country regarding the availability and access to foods, especially cereals, taking into account estimated incomes, expenditure patterns, prices of staple and processed foods, households and village stocks of primary staples, primary sources of staple foods (whether own stocks or purchases), food supplementation, i.e.

the number of women and children receiving food supplements and the types and amounts provided to each category; present stocks of the various types of food supplements;

- data from selected representative MHC clinics regarding the percentage of underweight children, including changes from the previous month and year (the latter taking into account any seasonal changes);
- data from selected representative health centres regarding diseases, e.g. cases of diarrhoea, malnutrition, measles, malaria and others, both from under five and over five children, and adults.

In a situation of drought and other calamities, such as epidemics, it becomes even more important to monitor the nutrition and health situation in the various households and communities affected. In the first place, these surveys permit the identification of the areas most seriously affected and within these areas the segments of the population most seriously hit by the drought, such as children, women headed households and other vulnerable groups. It facilitates the mounting of feeding programmes and the distribution of relief food aid.

Additional questions on livestock should be added to the questionnaires, regarding availability of grazing and water, and changes in cattle deaths, as well as questions on the need to dispose of household and farm assets, such as livestock, to generate cash to purchase food. In many instances it may take years for a rural household to build up the capital base again in the wake of a drought, if not assisted. These surveys serve to identify farmers who may need special assistance in rehabilitating.

## APPENDIX 1: Calendar of Topics included in the Monthly Food Security Bulletins

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
<b>1. THE FOOD SECURITY SITUATION AND OUTLOOK</b>												
<b>1.1 Crop and Weather conditions</b>												
1.1.1. Weather conditions (rainfall & soil moisture)	■	■	■	■	□	□	□	□	□	■	■	■
1.1.2. Remote Sensing (NDVI and RCD satellite imagery)	■	■	■	■	□	□	□	□	□	■	■	■
1.1.3. Assessment of status of land preparation	■	□	□	□	□	□	□	□	■	■	■	■
1.1.4. Assessment of status of planting	■	■	□	□	□	□	□	□	□	■	■	■
1.1.5. Assessment of crop conditions (phenological stages)	■	■	■	■	□	□	□	□	□	■	■	■
1.1.6. Assessment of crop pests and diseases	■	■	■	■	□	□	□	□	□	■	■	■
1.1.7. Assessment of any migratory pests	■	■	■	■	■	■	□	□	□	■	■	■
<b>1.2 Crop forecasts</b>												
1.2.1. Assessment of planted areas	■	■	□	□	□	□	□	□	□	■	■	■
1.2.2. Preliminary crop production forecasts through surveys	■	■	■	□	□	□	□	□	□	□	□	■
1.2.3. Production forecasts adjusted through agromet yield modelling	■	■	■	■	□	□	□	□	□	□	□	□
1.2.4. Final crop forecasts	□	□	■	■	■	□	□	□	□	□	□	□
1.2.5. Harvest/post estimates	□	□	□	□	□	□	□	■	■	■	□	□
<b>1.3 Assessment current food security situation</b>												
1.3.1. Update Annual Food Balance Sheet (AFBS)	■	■	■	■	■	■	■	■	■	■	■	■
1.3.2. Analysis of current food security situation	■	■	■	■	■	■	■	■	■	■	■	■
1.3.3. Update of Monthly Food Balance Model (MFBM)	■	■	■	■	■	■	■	■	■	■	■	■
1.3.4. Analysis monthly food security dynamics	■	■	■	■	■	■	■	■	■	■	■	■

## APPENDIX 1(contd...)

### Calendar of Topics included in the Monthly Food Security Bulletins

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1.. Food Security outlook for next marketing year												
1.1 Assessment outlook for next marketing year	■	■	■	■	□	□	□	□	□	□	□	□
1.2 Preparation of preliminary Annual Food Balance Sheet	□	□	■	■	□	□	□	□	□	□	□	□
<b>2. ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>												
2.1 Emergency relief programmes	■	■	■	■	■	■	■	■	■	■	■	■
2.2 Other feeding programmes	■	■	■	■	■	■	■	■	■	■	■	■
<b>3. AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>												
3.1 Requirement and availability of seasonal farm credit	□	□	□	□	□	□	■	■	■	■	■	■
3.2 Progress on disbursement of farm credit	□	□	□	□	□	□	■	■	■	■	■	■
3.3 Requirement and availability of seeds and fertilizers	□	□	□	□	□	□	■	■	■	■	■	■
3.4 Distribution of seeds and fertilisers	■	□	□	□	□	□	□	□	■	■	■	■
3.5 Physical requirements of storage and transport facilities for harvest	■	■	■	■	■	□	□	□	□	□	□	□
3.6 Financial requirements, procuring, transporting and storing harvest	■	■	■	■	■	□	□	□	□	□	□	□
3.7 Monitoring availability of physical and financial marketing facilities	□	□	□	□	■	■	■	■	■	■	■	■
<b>4. MARKETING INFORMATION</b>												
4.1 Market developments	■	■	■	■	■	■	■	■	■	■	■	■
4.2 Price Developments	■	■	■	■	■	■	■	■	■	■	■	■
5. HOUSEHOLD FOOD SECURITY INFORMATION	■	■	■	■	■	■	■	■	■	■	■	■

## APPENDIX 2: List of Topics included in the Monthly Food Security Bulletins

		JANUARY
1.	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agro-met yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	1.2.5 Harvest/post harvest estimates	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update of Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation preliminary Annual Food Balance Sheet	<input type="checkbox"/>
2.	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
3.	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements of storage and transport facilities for harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
4.	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
5.	<b>HOUSEHOLD FOOD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		<b>FEBRUARY</b>
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update of Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.3. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements storage and transport facilities harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		<b>MARCH</b>
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements storage and transport facilities harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		APRIL
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		MAY
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input checked="" type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input checked="" type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input checked="" type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input checked="" type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input checked="" type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input checked="" type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input checked="" type="checkbox"/>
	2.2. Other feeding programmes	<input checked="" type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements storage and transport facilities of harvest	<input checked="" type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input checked="" type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input checked="" type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input checked="" type="checkbox"/>
	<b>4.2 Price developments</b>	<input checked="" type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input checked="" type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		JUNE
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input checked="" type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input checked="" type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input checked="" type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input checked="" type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input checked="" type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input checked="" type="checkbox"/>
	2.2. Other feeding programmes	<input checked="" type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements storage and transport facilities for harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability physical and financial marketing facilities	<input checked="" type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input checked="" type="checkbox"/>
	<b>4.2 Price developments</b>	<input checked="" type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input checked="" type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		JULY
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input checked="" type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input checked="" type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input checked="" type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input checked="" type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input checked="" type="checkbox"/>
	2.2. Other feeding programmes	<input checked="" type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input checked="" type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input checked="" type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input checked="" type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements of storage and transport facilities for harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing harvest	<input type="checkbox"/>
	3.7 Monitoring availability physical and financial marketing facilities	<input checked="" type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input checked="" type="checkbox"/>
	<b>4.2 Price developments</b>	<input checked="" type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input checked="" type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		AUGUST
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input checked="" type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input checked="" type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input checked="" type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input checked="" type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input checked="" type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input checked="" type="checkbox"/>
	2.2. Other feeding programmes	<input checked="" type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input checked="" type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input checked="" type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input checked="" type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements for storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input checked="" type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input checked="" type="checkbox"/>
	<b>4.2 Price developments</b>	<input checked="" type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input checked="" type="checkbox"/>

**APPENDIX 2 (Cont.....)****List of Topics included in the Monthly Food Security Bulletins**

		SEPTEMBER
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input checked="" type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input checked="" type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input checked="" type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input checked="" type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input checked="" type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input checked="" type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input checked="" type="checkbox"/>
	2.2. Other feeding programmes	<input checked="" type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input checked="" type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input checked="" type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input checked="" type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input checked="" type="checkbox"/>
	3.5 Physical requirements for storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input checked="" type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input checked="" type="checkbox"/>
	<b>4.2 Price developments</b>	<input checked="" type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input checked="" type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		OCTOBER
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements for storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		NOVEMBER
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	<b>1.2.5 Harvest/post harvest estimates</b>	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements of storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>

**APPENDIX 2 (Contd.....)****List of Topics included in the Monthly Food Security Bulletins**

		DECEMBER
<b>1.</b>	<b>THE FOOD SECURITY SITUATION AND OUTLOOK</b>	
	<b>1.1 Crop and weather conditions</b>	
	1.1.1 Weather conditions (rainfall and soil moisture)	<input type="checkbox"/>
	1.1.2 Remote sensing (NDVI and RCD satellite imagery)	<input type="checkbox"/>
	1.1.3 Assessment of status of land preparation	<input type="checkbox"/>
	1.1.4 Assessment of status of planting	<input type="checkbox"/>
	1.1.5 Assessment of crop conditions (phenological stages)	<input type="checkbox"/>
	1.1.6 Assessment of crop pests and diseases	<input type="checkbox"/>
	1.1.7 Assessment of any migratory pests	<input type="checkbox"/>
	<b>1.2 Crop forecasts</b>	
	1.2.1 Assessment of planted areas	<input type="checkbox"/>
	1.2.2 Preliminary crop production forecasts through surveys	<input type="checkbox"/>
	1.2.3 Production forecasts adjusted through agromet yield modelling	<input type="checkbox"/>
	1.2.4 Final crop forecasts	<input type="checkbox"/>
	1.2.5 Harvest/post harvest estimates	<input type="checkbox"/>
	<b>1.3 Assessment current food security situation</b>	
	1.3.1 Update of Annual Food Balance Sheet (AFBS)	<input type="checkbox"/>
	1.3.2 Analysis of current food security situation	<input type="checkbox"/>
	1.3.3 Update on Monthly Food Balance Model (MFBM)	<input type="checkbox"/>
	1.3.4 Analysis of monthly food security dynamics	<input type="checkbox"/>
	<b>1.4 Food security outlook for next marketing year</b>	
	1.4.1 Assessment outlook for next marketing season	<input type="checkbox"/>
	1.4.2 Preparation of preliminary Annual Food Balance Sheet	<input type="checkbox"/>
<b>2.</b>	<b>ASSESSMENT OF EMERGENCY RELIEF AND FEEDING PROGRAMMES</b>	
	2.1. Emergency relief programmes	<input type="checkbox"/>
	2.2. Other feeding programmes	<input type="checkbox"/>
<b>3.</b>	<b>AVAILABILITY OF FARM INPUT SUPPLIES AND SERVICES</b>	
	3.1 Requirement and availability of seasonal farm credit	<input type="checkbox"/>
	3.2 Progress on disbursement of farm credit	<input type="checkbox"/>
	3.3 Requirement and availability of seeds and fertilizers	<input type="checkbox"/>
	3.4 Distribution of seeds and fertilizers	<input type="checkbox"/>
	3.5 Physical requirements of storage and transport facilities of harvest	<input type="checkbox"/>
	3.6 Financial requirements for procuring, transporting and storing of harvest	<input type="checkbox"/>
	3.7 Monitoring availability of physical and financial marketing facilities	<input type="checkbox"/>
<b>4.</b>	<b>MARKETING INFORMATION</b>	
	<b>4.1 Market developments</b>	<input type="checkbox"/>
	<b>4.2 Price developments</b>	<input type="checkbox"/>
<b>5.</b>	<b>HOUSEHOLD SECURITY INFORMATION</b>	<input type="checkbox"/>