

Country group Road Map

Mauritius

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A. Objective of the group work

To build consensus on key nutritional problems in the country and identify ways to ensure these nutritional problems are effectively addressed in food security and agriculture strategies and investment plans

(Specify the name of the policy/investment plan which was reviewed during country group work)

- **Food security Fund Strategic Plan 2013-2015**
- **Sustainable Diversified Agri-Food Strategy for Mauritius 2008-2013**

B. Background

You could provide here further information about the status of your country in the CAADP process:

0. *Launch of the process (Focal Point appointed, CAADP launch, TC appointed, experts engaged)*
 1. *Compact design and signature*
 2. *Development of Investment Plan*
 3. *Technical review of Investment Plan*
 4. *Business meeting*
 5. *Implementation*
 6. *M&E / Impact assessment*

You could also insert here key activities that were carried out in preparation for the workshop (i.e. setting up a multi-sectoral country team, production of the NCP, identification of key relevant policy and strategies (including main National Agriculture and Food Security Investment Plan – NAFSIP; organization of a pre-workshop meeting with country team members, etc.) and specify the objectives of these pre-workshop activities.

Process Launched

C. Analysis of nutrition problems

1. **What are the main nutrition problems in your country? Have malnutrition rates changed over the last decade? Will it change further in future 10 years? If so, how? What do you think are the major reasons for these changes?**

Guidance: Consider the various types of malnutrition. Analysing trends (seasonal and historical) can help identify causes of malnutrition and understand the evolution of the situation. Do not forget to consider issues within urban areas and urban-rural linkages; as well as HIV and AIDS

NUTRITION PROBLEMS

- Anaemia- 40% of the population is affected
- NCD (overweight and obesity (35 & 16%), Diabetes 23%)

Anaemia statistics

Age group	Year 2004	
	Male	Female
12-19	5.1	16.4
20-49	3.5	19.0
50-64	5.0	12.0

A survey has been conducted in 2012 and there is a perception that anaemia might be on the increase.

Overweight and obesity statistics

	Year 2009			Year 2004		
	Male	Female	Total	Male	Female	Total
Overweight	34.7	35.1	35.0	28.0	28.3	28.2
Obesity	11.3	20.5	16.0	5.9	14.9	11.1

Diabetes statistics

Year 2008		Year 2004	
Male	Female	Male	Female
24.6%	22.8	18.9	19.7

EXPECTED CHANGES

- Yes, it is expected to increase in further 10 years expect for diabetes. Major reasons for increase:
 - Lifestyle- people are eating more fast/junk food
 - High price of red meat which is a reach source of iron
 - Dietary habits
2. Are particular geographic areas / population groups (age, gender, infant and young child, people leaving with HIV, type of socio-economic groups, etc.) more vulnerable to malnutrition? Which ones, and why?
- Disaggregated data is not available for different groups such as socio-economic, ethnic groups.
 - Diabetes target group: young and adult female
 - Overweight and obesity: both male and female with special attention to male
3. Are the main nutrition problems and causes for malnutrition that you have identified already described in your NAFSIP? If not, which information should be added?

E.g. different types of malnutrition, key nutritional trends, analysis of nutritionally vulnerable groups and geographic areas, immediate and underlying causes of malnutrition

- *The national food security fund 2013- 2015 focused on increase self sufficiency for a variety of foods but did not take into consideration nutritional issues.*
- *Indicator: Apparent daily consumption of fruits and vegetables is 239 g.*

D. Objectives and targets related to nutrition issues

- 4. What specific objectives and targets would you need to include in your CAADP Compact and / or CAADP Investment plan to ensure that nutrition is effectively addressed (incl. linkages between HIV and nutrition)?**

Guidance: try to be more specific than “reducing malnutrition” / or “improving food and nutrition security” which are impact level goals. Example: Contribute to reducing stunting by ... by 20 .. / Contribute to improving dietary diversity ...

- National Food Security Strategic Plan 2013-2015:
 - To increase production of fruits and vegetables in order to support the campaign for doubling the intake of fruits and vegetables. (from apparent fruit and vegetable consumption of 239 gm to 500gm/g/day)
 - Outcome: Reduction of anemia, overweight and obesity by 5% in 5 years time with a multi sectoral program.
- Context: The country is self sufficient in vegetable production.
- How: Ensure dietary diversity and accessibility

- 5. On the basis of the nutrition objectives that you have formulated above (related to agriculture), how could specific objectives in the NAFSIP be revised / formulated to better address nutrition issues?**

- Promote home gardening (Home Economics Unit, Ministry of Gender Equality) at the same time promoting physical activity.
- Increase fruit production at backyard and commercial level

- 6. Should any specific population groups (age, gender, infant and young child, people living with HIV, type of socio-economic groups, etc.) or geographical areas be targeted to achieve these objectives?**

- *The targeted population is female of reproductive age (anemia)*
- *At national level: Both male and female for diabetes, obesity and overweight*

- 7. What nutritionally vulnerable groups / geographic areas do you recommend to add / further target in the NAFSIP?**

- *Special attention will be given to vulnerable areas.*

E. Interventions to enhance the nutritional impact of agriculture investments

- 8. How can existing food and agriculture programmes be “transformed” to support the achievement of the propose nutrition objectives / targets and meet the needs of identified target groups? Suggest concrete steps to take / interventions.**

Guidance: Start by identifying existing programmes and think about what worked / did not work until now. Then identify ways to maximise the nutritional impact of these programmes. Make sure that proposed interventions are adapted to different livelihoods. Make sure that the proposed strategies are:

- *relevant to address the nutrition problems and causes that were identified,*
- *feasible given existing capacities*
- *have maximum impact for minimum investments*
- *provide opportunities to create synergies and complementarities with other initiatives*

- Executive Summary - Food Security Strategic Plan 2013-2015

The Food Security Strategic Plan 2012-2015 has been prepared as a continuation to the previous strategic plan which reached its termination phase in December 2011. This plan takes into account all the shortcomings experienced under the previous plan and the lessons learnt therein. It also takes into consideration all challenges facing the agricultural sector, the current trends observed in the agro-industry. With the development of the country and new lifestyle, nutritional /health concerns such as increasing prevalence of anaemia, diabetes, obesity and overweight have emerged requiring the contribution of all sectors to mitigate its impact on the Mauritian population. The economic burden of poor diet is substantial. It represents a significant risk factor which involves high medical expense, inactivity, disability and premature death The new plan takes into consideration this emerging issue and is now nutritionally sensitive.

The main objectives of the plan is to improve the level of self-sufficiency in various commodities so as to ensure dietary diversity, to promote export and create new opportunities for farmers, entrepreneurs and rural families to increase farm income and productivity while conserving the natural biodiversity and providing safe, sufficient and nutritious food supply.

In order to finance the various actions, schemes and incentives proposed in the plan, a budget estimate of Rs1,086M would be required. This comprises Rs458M for the Crop Sector, Rs457M for the Livestock Sector and Rs171 for Rodrigues (Rs94M for Livestock and Rs77M for the Crop Sector). The budget would be used to fund infrastructural development and land preparation, mechanisation of farm operations, schemes for modernising the agricultural sector through use of improved varieties/ breeds, research and development activities and capacity building among others. This plan provides for measures to achieve up to 33% of our food requirements and dietary diversity based on assumption that land and funds are made available in a timely manner.

- Challenges and trends

The non-sugarcane agricultural sector in Mauritius is faced with several challenges. On the domestic front, the non-sugarcane sector which comprises horticulture, livestock, and agro-industry faces weaknesses at production, marketing and institutional levels, which needs to be addressed.

- Agriculture and nutrition

The National Plan for Nutrition 2007-2012, prepared by the Ministry of Health and Quality of Life highlights the high rates of diseases and death from chronic diseases like diabetes, coronary heart disease and stroke (NCDs), associated with among others, poor dietary habits. These NCDs represent a significant risk factor which involves high medical expense, inactivity, disability and premature death.

The agricultural sector can contribute to alleviating this problem through a nutrition sensitive agricultural production programme by ensuring a variety of fruits and vegetables as well as nutrient dense crops to consumers.

The main challenges are:

- Access to new technologies to give a new impetus to the sector and to keep up with market exigencies;
- High cost of key inputs mainly labour cost and high prices of feeds, logistic and agro-chemicals;
- Inadequate mechanisation and insufficient irrigation facilities;
- Inadequate planning of production as per market demand;
- Scarcity of raw materials for agro-industries;
- Presence of various non-economic factors which affect predictability of production, such as pest incidence and adverse climatic conditions;
- Inadequate investment and planning in research, intensive technologies, and capacity building;
- Low uptake of modern management practices;
- Gradual erosion of the resource base, that is land and labour, in favour of more remunerative sectors such as manufacturing, tourism, and services;
- Failure of farmers grouping;
- Resistance to change and unwillingness to take risk;
- Certification; and
- Scarcity of land for pastures and fodder production.
- Stakeholders being nutrition insensitive

- Pulses

A review of the production status of pulses in particular fresh bean seeds (haricot pale) shows that production has increased from 1,175t in 2008 to 1,690t in 2011. Pulse crops like lima bean (gros pois), dry bean and soybean are well adapted to our local agro-climatic conditions and have been grown successfully. New varieties of lima bean, and soybean were evaluated and five dry bean varieties, locally available were evaluated. 2 varieties were selected by planters based on their adaptability, productivity and consumers preference. In 2011, 1 pilot production unit was set up on-farm at Montagne-Longue with variety Long Tom. Production of these new crops will broaden the source of low fat protein and iron thus contributing towards the management of nutrition related diseases.

- Fruit Sector

Orchard development

Despite the increasing importation of fruits, per capita consumption is relatively low. Moreover there is a need to ensure dietary diversity for health enhancement.

- Research and Development Programme

The R&D programme aims at improving and diversifying food crop production in a sustainable manner through development of cost effective production methods. The measures proposed hereunder concern introduction/evaluation of planting material, good agronomic practices, post-harvest management and agro-processing will be implemented during 2013-2015.

- Local seed production

The annual national seed requirement is estimated around 16t (excluding bean, and potato seeds). The Agricultural Services play a key role in **production and supply seeds of vegetable crops, grafts layers of fruit trees**. In 2011, about 1,154t of seeds of more than 20 vegetable crops were produced. **Under the Quality Declared Seeds (QDS) Scheme**, about 1,100kg of seeds (Cucurbits (700kg); bean (300kg); onion (139kg) and cauliflower (5kg) in a joint venture with Agricultural Servicers/ Planters/AREU.

- Supply of planting materials

Tissue-culture plantlets of fruits trees and ornamentals are produced and put on sale by the Agricultural Services and Food and Agricultural Research Council (FARC). Over the last 3 years, FARC supplied 50,000 potted hardened tissue culture banana plants were supplied to growers and plans to produce 55,000 potted hardened plants for growers in forthcoming 4 years.

Propagation of nutrient dense crops will be encouraged

9. How can agriculture policies and investments create incentives (for producers, processors, retailers and consumers) to improve nutrition? Suggest concrete steps to take / interventions.

- The CAADP compact represents an agribusiness opportunity for local small farmers to undertake seed production of nutrient dense crops for the Africa region. It is recommended that a market survey be carried out to assess seed demand in the region for the implementation of food security and assess the seed production feasibility locally or through cross border initiative.

10. Should any new interventions be piloted / implemented to complement existing programmes? Suggest concrete steps to take / interventions.

- New proposed interventions- Ensuring dietary diversity and accessibility through home gardening project

The country is self-sufficient in vegetable production. To ensure dietary diversity without disrupting the market, home gardening producing a variety of vegetables (including nutrient dense crops) will be encouraged at household level over the country. The intervention is low cost and technically feasible given the existing capacity of its extension services.

- Initially the target groups will be agricultural clubs (youth and women) and primary and secondary school. Also at school level acerolla (vitamin C rich) will be planted. This will then be scale up to households nationally. Special attention will be given to vulnerable groups. The family will be encouraged to participate in this activity. Retrenched workers (textile, sugar) will be one target group that can easily uptake this intervention. It will be

undertaken with the collaboration of the Home Economic Unit of the Ministry of Gender, Ministry of Education and Ministry of Health. Inputs such as a variety of seeds, planting materials, fertilisers will be provided. Timeframe implementation is 5 years.

- There is a permanent nutrition education programme by the Ministry of Health and Ministry of Gender Equality, Child Development and Family Welfare to educate the population about the importance of diet diversity and motivate them to eat healthier. In the context of the new intervention on national home gardening, the FSF will consider in collaboration with the Ministry to reinforce the on going education programme. This will be achieved through an aggressive national sensitization campaign (radio, TV, newspaper, poster/ billboard, brochures, logo) etc.

F. Priorities for information systems

11. Do existing information systems provide the information you need to adequately plan nutrition and agriculture interventions? If not, how should these be strengthened? What are priority actions for improving food and nutrition security information systems?

- In general sufficient macroeconomic indicators exists
 - To monitor dietary diversity goal, there is a need to develop appropriate indicators for production at house hold level. The two ministries (Agro industry and Health) will develop the required tool.
 - In addition nutrition sensitive information indicators will have to be developed to assess contribution of agriculture to nutrition sector, ex. area under nutrient dense crops

G. Institutional arrangements and coordination mechanisms

12. What needs to be coordinated and for what: what do you want to achieve with coordination?

- The scope of agriculture/nutrition intervention does not warrant the setting up of a high level coordinating body. A nutrition task force (under the National plan for nutrition) exists at the Ministry of Health in which the Ministry of Agro is involved.
- The taskforce will coordinate, monitor and share information

13. How should existing coordination mechanisms be strengthened to better integrate nutrition in agriculture policies and programmes, and better integrate agriculture in nutrition policies and programmes?

- The stakeholder platform will meet at regular interval at every 3 months. Agenda of integration of agriculture in nutrition policies and vice versa will be taken on board for strategic policy and development.

14. Which partners (national institutions, development partners, private sector) / initiatives (SUN, REACH, etc.) should be involved for strengthening the nutritional impact of agriculture policies and programmes?

- The task force has identified relevant additional stakeholders to be taken on board

H. Capacities needed for integrating nutrition in agriculture

15. What are the most critical capacity gaps for achieving the proposed objectives? How would you address these gaps in the short and long term?

Guidance: Look at operational, strategic and research capacities for both individuals and institutions.

- A gap analysis is to be carried out in line with the new orientations

I. Costing / funding issues

16. How can you use existing resources to address some of the priorities (in terms of interventions, information systems and capacities) identified above? Where would you need new resources?

- The FSF plan has been approved by cabinet (need for re-approval with new nutrition sensitivity/activities???)
- To review if required, priority of nutrition sensitive interventions

J. Next steps

Guidance: Think about:

- *How each team member will report back to their individual organization?*
- *How to sensitize/influence decision-makers to take on board recommendations coming out from the workshop?*
- *What are the key events/opportunities to integrate your suggestions on nutrition (e.g. in the CAADP process; during a SUN meeting; during a national high level meeting, etc.)?*
- *What are your needs for external support/assistance?*
- *Who will be the main contact person for nutrition-related issues in the CAADP process after the workshop?*

To be sent

Action point	Responsible person	Date	Comments (i.e. resources required, potential constraints)