

# Exploring Research Options on the Impact of Food Price Fluctuations in Egypt

Scoping Survey Final Report 24/2/2009

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## Abstract

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This scoping study was undertaken in order to profile the major implications of the world food crisis on Egypt. Special attention was given to social vulnerability, resulting from a fluctuating market. The study identified those groups most vulnerable to the crisis and outlines the responses underway from different stakeholders; including state organizations, NGOs, charities, community groups and donors. The ultimate purpose of the scoping study was to identify policy relevant initiatives through a multidisciplinary research programme for IDRC's consideration. The scoping study identified key research questions of interest from a multidisciplinary perspective as well as key targets for policy influence.

The developmental objectives of the proposed research programme are to: (i) Compile and analyse validated information and results on the negative impact of high and volatile food prices on the lives of the poor, (ii) support decision makers in the design of sustainable policies that mitigate the adverse impacts of high and more volatile food prices on poverty, (iii) support broad-based growth in competitiveness in agriculture to ensure adequate supply and marketing responses as part of a sustained improvement in food supply.

To achieve these objectives, the following five areas/components have been identified: (1) Towards an Integrated Food Security Monitoring System including the Regular Monitoring of the Real Effects of Food Insecurity at the Household Level; (2) Competitiveness and Policy Options for Agricultural Development in Egypt; (3) Impacts on internal markets and its re-governance; (4) Agricultural Risk Management; and (5) Institutional Reforms for Higher Income and Governance .

The methodology of this study included: a comprehensive multidisciplinary literature review based on cross-cutting themes, separated by subtopics; a series of focus groups on cross-cutting themes; relevant information from government and non-governmental institutions collected and reviewed; an interim report based on initial findings; a workshop to present findings from the interim report with the purpose of validating (or rejecting) the interim report findings within a wider audience of experts in various disciplines; and analyze the outcomes of the workshop. The information obtained from this process has been incorporated in this final report.

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## Annex

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<b>Annex I</b>	On-going and Planned Activities for Selected Major Partners in Development on Impacts of Soaring International Food Prices in Egypt
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## 1. Background of the project

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The following scoping study identifies what, how, where and with whom IDRC can contribute to the knowledge on the impact of price fluctuations in Egypt most effectively. The report draws on secondary documents, and the knowledge and expertise of the consultants and their contacts, IDRC project partners, and key stakeholders from the policy, development and research fields. It reviews the responses of key donors to the crisis. It uses a strong multi-disciplinary approach and pays attention to social and gender issues to explain the political, economic and social vulnerability aspects of the crisis in Egypt. This report presents a research programme consisting of five research components for the consideration of IDSC.

### 1.1. The objectives of the study

- Profile the current crisis in terms of social vulnerability (e.g. social protection policies, household food security, nutrition), the food supply system (e.g. food production, imports and distribution), and economic issues (e.g. public finance, subsidies, international trade). Identify any gender-specific impacts as well as groups most vulnerable to the crisis
- Outline the responses underway from different stakeholders, including state organisations, NGOs, charities, community groups and donors
- Identify key research questions of interest, and screen, rank and cluster sectoral priority questions from a multidisciplinary perspective
- Identify key targets for policy influence, including organizations and individuals interested and working in this area
- Identify options for effective response from IDRC to the crisis, in the context of IDRC's research mandate
- Evaluate the need for and usefulness of a validation workshop, and propose the format, content and participants for such a workshop

### 1.2. The outputs of the study

- An interim report describing the methodology used, and assessments of the most effective options for MERO to fill research gaps and influence policy and practise to reduce the vulnerability of poor Egyptians to food insecurity through a multidisciplinary approach
- Provide a comprehensive picture of the extent of the problem, policies for social protection and food supply and for management of the economy, and current response programmes;
- Priority multidisciplinary research questions for strengthening policy and household coping strategies in the medium term
- Opportunities and targets for a research programme to influence policy, in terms of key stakeholders and initiatives
- Opportunities for MERO to collaborate with other donors and international organizations to coordinate responses to the food crisis
- Pros and cons of different programming frameworks to advance multidisciplinary research in this area
- Validation workshop
- Final report

### 1.3. Methodology of the study

- Comprehensive multidisciplinary literature review based on cross-cutting themes, separated by subtopics
- Hold a series of focus groups on cross-cutting themes

- Collect and review relevant information from relevant government and non-governmental institutions
- Create an interim report based on initial findings
- Hold a workshop to present findings from the interim report with the purpose of validating (or rejecting) the interim report findings within a wider audience of experts in various disciplines
- Analyze the outcomes of the workshop and feed that information into a final report to be submitted to IDRC

#### 1.4. Focus Groups

Focus Group 1: Food Poverty, Nutrition and Targeting the Poor

Focus Group 2: Water Resources, Environment, & Climate Change

Focus Group 3: Meeting with MALR

Focus Group 4: Meeting with MoSS (targeting, subsidies, conditional cash transfers, ration cards)

Focus Group 5: Meeting with IDSC (early warning systems, risk management...)

Focus Group 6: The Urban Market Setting and the Urban Poor

The minutes of the focus group meetings 1-3, and 6 are attached in Annex II.

#### 1.5. Workshop

A workshop was conducted on the 27<sup>th</sup> of November 2008. The workshop helped validate and prioritize the salient policy relevant research themes identified by the team of consultants. The identified research themes all aim to mitigate price shocks and their effects on the poor, in the short and long term. Once validated, adjusted and prioritised, these research themes were fed into the design of a programme of policy-relevant research which IDRC and other donors may be willing to support. The objectives of the workshop included:

- Validating the suggested research themes;
- Prioritising the research themes;
- Proposing other key research themes that may have been overlooked;
- Seeking to establish linkages and connections amongst the research themes to strengthen interdisciplinary thinking and approaches.

Over 50 experts from more than 20 research centres and organizations attended the workshop. The minutes of the workshop are attached in Annex III.

## 2. Implications of the fluctuating food prices on poverty in Egypt and Important issues identified as beyond the scope of the research

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### 2.1. Food Prices and Poverty in Egypt

Food prices in Egypt dramatically increased in the period between July 2007 and July 2008 by 33.2% for the country as a whole. Rural Lower Egypt experienced a 36.3% increase with rural Upper Egypt experiencing a 35.9% increase during the same period. This illustrates that the price rises in rural areas have been more severe than those in urban areas. Based on Central Agency for Public Mobilization and Statistics (CAPMAS) the food categories which experienced the highest increase were cereals, oils and fats, and fruits which experienced respectively a 49.3%, 57.1%, and a 45.7% increase nationally.

Of all the commodities (including fuel) which have increased in cost in the last two years, it is food which has the highest impact on poverty. This is due to the fact that the poor spend a high share of their total expenditure on food estimated at about 60 percent.

Egypt's vulnerability to global food price fluctuations is one of the most vexing in the world due to the sheer scale of its food imports relative to its population. Emerging estimates of the price impact from the global food crises vis-à-vis their proportion of the population below the lower national poverty line is an increase from 19.6% in 2005 to 29% in 2008.<sup>1</sup> The lower poverty rate (price impact) is estimated to have equally risen in other countries in the region from the least developed such as Yemen where it has reached 49% to the wealthier, comparatively speaking, such as Lebanon where it rose to 11.7%.<sup>2</sup>

However, when both price and income effects of rising food prices are taken together, the impact on the lower poverty for Egypt has been attenuated as estimated using a CGE model [from 29% to 23.3%]. The overall impact on the upper poverty line for Egypt is a rise from 40.5% to 45%.<sup>3</sup> One key research question is therefore to verify and understand the determinants of poverty and their consequences in a general equilibrium context, with the relative weights and contribution of various policy and non-policy variables, and how the welfare loss to the poor is significantly reduced as a result of the interaction of specific variables and especially by the subsidy package of interventions of the state.

Characteristics of the poor in Egypt make for the catastrophic impact of food price increases: One is the percentage of food in the budget for the poor is estimated at about 60% of their expenditure, and two is that apart from 20% of Egyptians who are below the lower national poverty line, there is also another 20% who are below the upper national poverty line, and maybe a third 20% who are very close to the poverty line, such that any price shock will push them down below the poverty line.

At least 70% of the poor are accounted for by rural Egypt where agriculture is the mainstay of farmers. However, land holdings have become fragmented to the extent that it is estimated that 60% of land holdings are of less than one feddan (one acre) such that they are net consumers of food products (i.e. their food production is less than their food consumption, hence inflation hits them in a negative way)

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<sup>1</sup> UNDP and LAS (2008) "Food Security, Poverty and Agriculture in Arab countries: Facts challenges and policy considerations"

<sup>2</sup> Ibid

<sup>3</sup> Heba El Laithy, Background Paper to UNDP and LAS (2008) Ibid.

## 2.2. Areas identified as beyond the research agenda

### 2.2.1. Impact on the macro economy and trade

Given the need to make research choices, it may be considered that the impact on the macro economy and on trade are outside the immediate focus of the proposed IDRC agenda, although the repercussions from future prospective changes in the global market may positively or negatively impact domestic inflation and hence further improve or worsen the purchasing power of the poor in Egypt. However, from the perspective of the IDRC research programme, it still makes sense to study the appropriate policy response of future price shocks, hence supporting the investigation of early warning systems, strategic stocks, and enquiring into options for importation in the futures markets and options for producers insurance against price fluctuations.<sup>4</sup>

### 2.2.2. Climate Change and the Environment

Another research area, which is too large to incorporate into IDRC's research agenda as a self-standing topic is climate change. Nevertheless, it will be important to perhaps undertake research on agriculture's supply response to various climate change scenarios.<sup>5</sup> Again, with respect to the topic of the environment, it would seem too large to be tackled as the core of the IDRC agenda or as any self standing research component. In the same vein as for climate change what is proposed is to mainstream the environment issues wherever possible as a crosscutting element. As an example issues of air pollution or irrigation or lake/river water pollution can be addressed as part of the institutional reform research agenda, where law enforcement, incentives and cooperation must be promoted, along with coordination between the various government entities at central and local level.

### 2.2.3. Food subsidies

Food subsidies as a topic was explored extensively by the research team and was originally included as a component in the overall proposed research programme. However after feedback from focus group discussions and the workshop it was decided that although there is a need for further research on the impact of food subsidies on food security and the poor in Egypt, IDRC is not at a comparative advantage to lead this research, if the aim of such research is to have an impact on policy. Both the World Bank and WFP have conducted and continue to undertake extensive research on the topic, both have had little impact at the policy level. However, and considering the many past recommendations that have not been adopted, it would seem that this in part indicates the extent that political factors outweigh other considerations for decision makers where this topic is concerned. It is agreed that the issue of food subsidies will be relevant and touched upon by other components in the research programme in so far as they have an impact at the household level.

A description of the current food subsidy system in Egypt is attached in Annex IV.

### 2.2.4. Nutrition

Another area of concern that was discussed at length in some of the focus groups and the workshop was nutrition. Yet, the outcome of the exercise was to consider nutrition as a cross-cutting theme and a secondary priority within the overall scope of the research components.

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<sup>4</sup> See concept note 4 from this report

<sup>5</sup> See concept note 3 from this report



### 3. The Proposed Programme Framework

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#### 3.1. Objectives:

To support the efforts of the Government and other Partners in Development, the developmental objectives of the proposed research programme are to: (i) improve the validated information and results for better decisions to reduce the negative impact of high and volatile food prices on the lives of the poor in a timely manner, (ii) support decision makers in the design of sustainable policies that mitigate the adverse impacts of high and more volatile food prices on poverty, (iii) support broad-based growth in competitiveness in agriculture to ensure adequate supply and marketing responses as part of a sustained improvement in food supply.

To achieve these objectives, the following five areas/components are identified: (1) Poverty, Food Security, Nutrition and Targeting; (2) Productivity, Supply/Marketing Responses and Competitiveness; (3) Environment, Climate Changes and Water Resources; (4) Risk Management and Market Stabilization; and (5) Institutional and Technical Capacities to Policy Analysis and Impact Assessment.

#### 3.2. The Guiding Principles:

The guiding principles for designing the programme framework are:

- (1) Multidisciplinary and comprehensive programme approaches are considered in the design and proposed implementation modalities.
- (2) The programme and underlying projects/components focus on filling gaps in research to avoid repetition or overlapping with ongoing or planned programmes of other partners in development. The proposed programme is consistent with, complements, and supports on-going and planned efforts by the World Bank<sup>6</sup>, UN Agencies<sup>7</sup>, and European Union<sup>8</sup>. It is also based on experts' consultations and individual interviews with key senior officials and researchers as well as implications of basic analysis of available/relevant secondary data including (production; prices of main commodities at farm, wholesale and retail levels; subsidies; agriculture balance of trade; cropping patterns; recent DRC estimates and implications; food balance sheets; etc).
- (3) Supports the Government's "Sustainable Agricultural Development Strategy till 2030" and the "National Master Plan" for water resources till 2017.
- (4) Not limited to the 2007-2008 soaring food prices but contributing to building national capacities to deal with similar emergency situations in the future.
- (5) Dealing with impacts and implications across the whole value chain of food products including inputs procurement, production, processing, distribution, trade and consumption/utilization.
- (6) Implementation and programme management need to build upon needed coordination and cooperation among Government Agencies, NGOs, private sector, donors and Civil Society.
- (7) While dealing with supporting research to deal with short term solution such as improving social safety net measures for the targeted poor segments of the society, it stresses the longer term sustainable agricultural and rural development based on comparative advantage of the scarce natural resources and enhancing competitiveness

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<sup>6</sup> Group of Eight-meeting of Finance Ministers, "Addressing the Food Crises: The Need for rapid and Coordinated Action", Osaka, Japan 13-14 June, 2008; and "Framework Document for Proposed Loans, Credits, and Grants in the amount of US 1.2 billion Equivalent for the Global Food Crises response Programmeme", May 22, 2008.

<sup>7</sup> UN Coordination Office – Egypt, "Fact Sheet on UN Support to the Government in Response to Rising Food Prices", June 9, 2008.

<sup>8</sup> TOR and Outline for the Inter-Agency Assessment Mission starting October 15, 2008.

of the agriculture and rural sectors. This is of particular relevance due to the more recent relative decline in international food prices and the current global financial crises.

### 3.3. The Overall Programme

The proposed programme is made up of five interconnected and related components. Each of the components is briefly outlined below. Following is the description of the overall programme followed by an outline of each of the components:

The multi disciplinary nature of the programme and the multi-faceted approach taken have been translated into in five components to the programme. Moreover, the components of the programme are unified by a number of cross cutting themes and shared goals which together produce a holistic perspective of the effects of fluctuating food prices in Egypt.

The research programme presented here centres on the issue of access; from access to food at the household level to market access from the perspective of producers and traders. The programme addresses the repeatedly identified need for information sharing and coordination, providing an environment of continuous interaction between researchers, policy makers, public and private extension agencies, NGOs and UN agencies. Central to the programme is the idea of improving access to data for all stakeholders.

The issue of water plays a part in all the research components presented. From the economic perspective the value of water will be analysed in relationship to agricultural competitiveness. Water will be studied in the context of agricultural risk management, as well as analysed as an important factor at the household level with regards to access to safe water and the safe disposal of grey water.

The environment is another issue which will be analysed from different perspectives by all the research components. At the household level the immediate environment has a direct impact on nutritional levels, access to food types and general health. In terms of agricultural competitiveness the usage of by-products and wastage will be looked at from the environmental as well as economic perspective.

The programme recognises that the modelling of the possible impacts of climate change is too large an issue to be taken on by this research. However all the components in the programme are dealing with the issue of volatility in food prices. Available climate change predictions will be taken into account in all the components as a factor which can lead to instability in both agricultural production and food prices. From this perspective, the issue of climate change is a crosscutting theme in all components.

Institutional reform is an issue which has been identified as a component in itself. However it is also a crosscutting theme which will be looked at by all components. Household analysis will observe the impact of subsidies in relationship to household access to food. Therefore the delivery systems of food subsidies and the effectiveness of these subsidies will be researched. It is recognised that all households function within, and are affected by government institutions, including pension schemes, welfare transfers and food subsidies. The extent and efficiency of these institutions in relationship to alleviating poverty and providing a safety net for the most vulnerable in the face of volatile food prices will be research. The outcome of this research will be recommendations on institutional reform to improve poverty alleviation and food security mechanisms.

The research components focusing on agricultural risk management, competitiveness, and the impacts of volatile prices on internal markets will all be analysed within the context of the

relevant institutional frameworks which affect them. These frameworks will be critically appreciated, weaknesses and strengths identified and recommendations for improvements tendered in the final analysis.

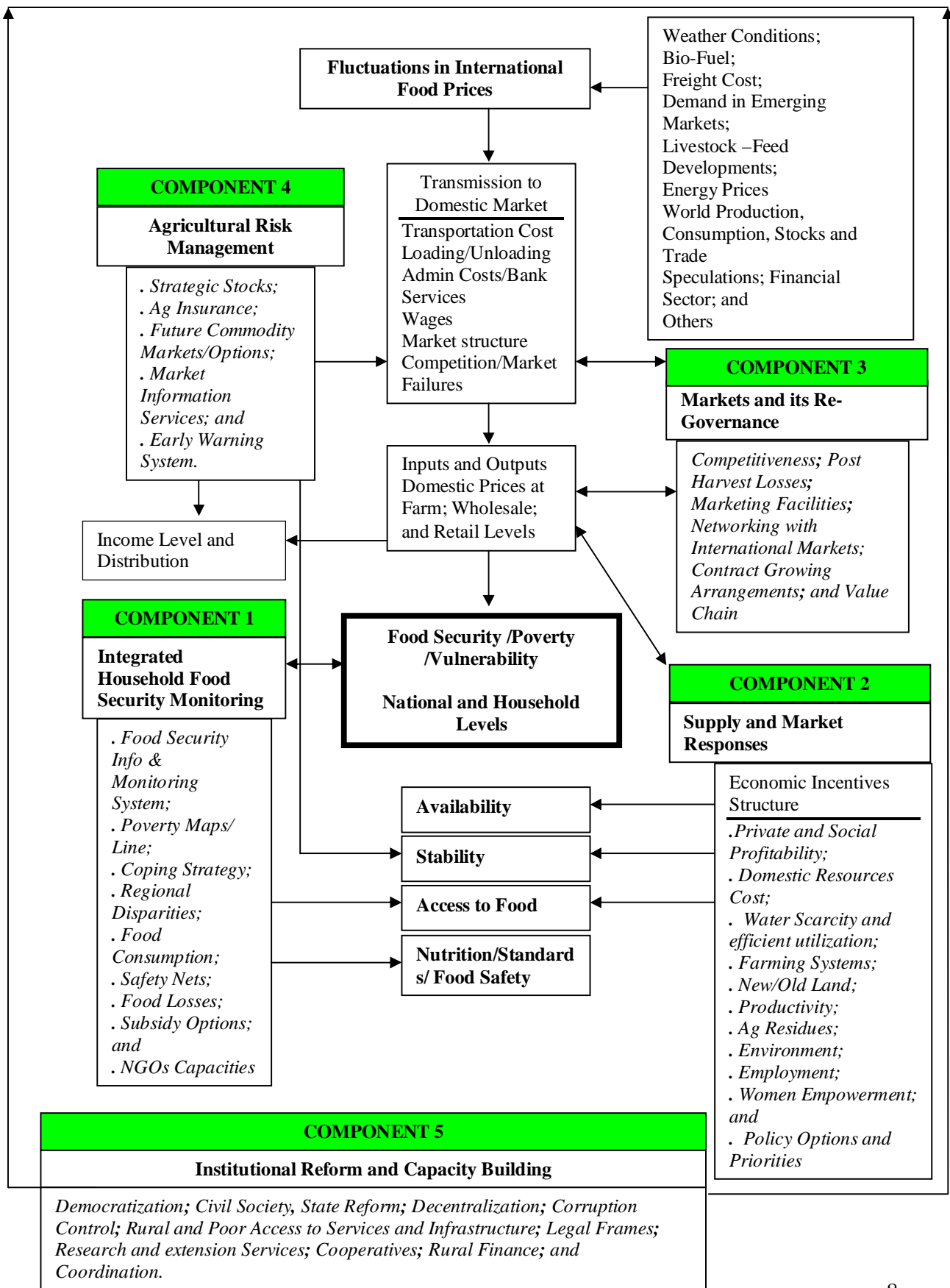
All the five research components will be researched from the perspective of alleviating poverty and food insecurity from the household to the national level. In addition to poverty, the other core issues of the programme are volatility and recommended responses. All the research components will centre on these three core issues. In addition all five components will, where relevant, disaggregate the findings by rural / urban; new lands / old lands; Upper Egypt / Lower Egypt and gender.

Diagram 1, illustrates that the identified 5 components are interrelated and designed to provide policy recommendations to priority issues affecting the food security and vulnerability at the national and household levels. Each of the 5 components is designed to contribute directly to one or more of the food security pillars, namely, food availability, stability, access and nutritional aspects.

The fluctuations in the international market has been caused by the intersection of several factors that may differ from one season to another. The transmission of such fluctuations to the domestic market depends upon several factors including internal market structure, competition, wages, administrative costs as well as transportation and loading/unloading costs. The assessment of these changes in inputs and output prices through household income levels requires an effective monitoring and information system. The coping strategy of the poor and near-poor segments of the population facing severe food price changes need to be assessed. This is directly related to the volatility of food prices and access to food. Also, such fluctuations are channelled to production and marketing decisions through affecting relative inputs and output prices. The role of the internal markets and their re-governance becomes crucial in reducing marketing costs, reduce losses and ensure enabling competitive environment and conditions. In addition, the impact of higher farm prices on rural income and supply responses depends on the resources and institutional constraints and policy distortions affecting the economic incentive structure facing the farmers.

Policy measures to enhance competitiveness and productivity in agriculture will surely have direct impacts on food availability, stability and access. Meanwhile, to reduce market instability, the component of agricultural risk management is to include researchable issues aiming at providing the policy makers with measures to ensure income stability for farmers as well as food supply stability in the market to satisfy demand. The component dealing with institutional reform and capacity building is an important element to ensure the enabling environment for proper policy design and implementation. As shown in the diagram, it is a crosscutting theme supporting the strategic planning of agricultural and rural development in Egypt and will be looked at by all components.

**Diagram 1:** Interrelationship among Identified Research Options/Components on the Impact of Food Price Fluctuations in Egypt



Following is a brief description of each of the research components. These are further elaborated in Section 4 “The Programme Components”.

### **3.3.1. Component I Towards an Integrated food Security Monitoring System; including the Regular Monitoring of the Real Effects of Food Insecurity at the Household Level**

With the increase and then rapid fluctuation of food prices over the last two years, it is clear that there is an increase in the number of food insecure people in the country. What is less clear is how the poorest have dealt with the difficulties they are facing with increasingly limited access to food. It is expected that poor families are substituting more expensive foods with cheaper substitutes, that there is an increase in debt and that other coping mechanisms are being used.

The consultants have identified the need for a monitoring system to answer the key questions of:

- How do households cope with “shocks to food access” i.e. What are their coping mechanisms?
- What is the actual consumption of poor and vulnerable families, and how does this change in response to food price changes over time.
- What are the nutritional effects of the volatility in access to food on the household

These questions are particularly pertinent in the current environment of instability in many households’ access to food. A concept note has been developed which argues that regular data collection from the field is needed to monitor the situation. This, coupled with aggregated and harmonised existing data from the stakeholders identified by the consultants, would lend to a clear up-to-date and accurate assessment of the food security situation of Egyptian households.

The following specific objectives have been identified for this proposed research component:

1. The establishment of a continuous process of data collection and analysis of food security in Egypt.
2. Monitoring the impact of changing food consumption patterns on nutrition
3. Building the capacity of the Food Security Information Centre (Ministry of Agriculture and Land Reform) in the areas of data collection and analysis.
4. Building the capacity of non-governmental organisations for data collection analysis.
5. The sharing of data and information between the government, the UN and non-governmental organisations.
6. Enabling both policy makers at the government level and NGOs to make informed decisions on policies or programmes targeted at the food insecure and vulnerable.
7. Focusing attention of policy makers and civil society on the importance of food security and pro-poor analysis.

### **3.3.2. Component II – Competitiveness and Policy Options for Agricultural Development in Egypt**

The global supply response for increased international food prices during 2007/2008 period reached about 12%. According to FAO, most of this increase (about 9%) was from developed countries, and if China, India, and Brazil are not considered, supply response from other developing countries is virtually zero. Thus, experiences show that most of developing countries did not benefit from the increase in international food prices and food supply did not increase accordingly. This was mainly due to the fact that there are several constraints along the commodity chain including administrative constraints in addition to the distorted incentive structure facing the agricultural and livestock producers and the relatively higher increase in energy, transportation and fertilizers costs. It is therefore important to seize this window of opportunity to assess how to avoid undesirable subsequent crises by facilitating adequate supply

and marketing responses in addressing the longer-term challenges.

A research is needed to support and further extend the analysis included in the Strategy Document: Horizon 2030. Such analysis will be instrumental for any further coping strategy for prices fluctuations and in planning sustainable agricultural development in Egypt under the new market oriented environment.

The sustainable and stable supply and marketing responses to changes in international and domestic prices will surely adjust availability of food in the market. The research proposal addresses the Government's general objective to increase and improve the competitiveness of agricultural production in foreign markets and optimal exploitation of agricultural resources, particularly land and water, to insure its sustainability and preserve the environment. It addresses several specific policies highlighted in the Egypt Agriculture Strategy for 2030 concerning the achievement of higher levels of self reliance based on comparative advantage and sustainable resources utilization of the scarce land and water resources. It also conforms to the strategic directives of supporting small farmers and adopting a comprehensive approach in dealing with packages to develop production, processing and marketing of agricultural products.

The objective of this component is to support the decision makers (Ministry of Agriculture and land Reclamation, and Ministry of Social Solidarity) in mid-term planning and policy analysis/formulation for agricultural development in Egypt under the prevailing internal development and international environment. More specifically, the envisaged research will support these Institutes in formulating Policy Options/ and Priorities at the sector level based on detailed comparative advantages and competitiveness indicators taking into considerations environmental, institutional, agronomic, economic and trade constraints and potential.

The component's overall objective is to provide recommendations and concrete multidisciplinary measures to increase the competitiveness of the agricultural sector in Egypt with targeting policy directives to the poor segment and small holders. To achieve this objective, the research project would provide policy makers with options to:

- ensure the provision of adequate food supplies through cropping pattern and domestic market management or trade, or by stimulating a short-run supply response from the domestic agricultural sector under water and other constraints; and
- Provide options on how best to streamline and target the direct support to producers, especially to the most vulnerable population groups, to assist them in maintaining adequate and stable supply and marketing responses.

### **3.3.3. Component III – Impacts on Internal Markets and its Re-governance**

The sustainable and stable marketing responses to changes in international and domestic prices will impact on the availability of food in the market. This research component addresses the Government's general objective to increase and improve the competitiveness of agricultural production in foreign markets and optimal exploitation of agricultural resources, particularly land and water, to insure its sustainability and preserve the environment. It addresses several specific policies highlighted in the Egypt Agriculture Strategy for 2030 concerning the achievement of higher levels of self reliance based on comparative advantage and sustainable resources utilization of the scarce land and water resources. It also conforms to the strategic directives of supporting marketing agencies and adopting a comprehensive approach in dealing with packages to develop production, processing and marketing of agricultural products.

Successful implementation of this component can provide timely answers and advice to increase trade agencies through contract growing arrangements, provide the post-harvest grading and packing facilities needed by horticultural sub-sector, increase Egypt contacts with international

markets and alleviate the current trade deficit in the agricultural sector.

The component's overall objective is to provide recommendations and concrete multidisciplinary measures to increase the competitiveness of the agricultural sector in Egypt with targeting policy directives to the poor segment and smallholders. To achieve this objective, the component will provide policy makers with options detailed in section IV of this report.

#### **3.3.4. Component IV - Agricultural Risk Management**

There are several market based risk management measures that need to be assessed for consideration by decision makers in Egypt. The major recognized measures include: (1) developing insurance (Takaful) schemes; (2) establishing reliable early warning systems (factoring in weather and prices); (3) building adequate and efficient strategic stocks for major stable food crops; and (4) adopting future market/commodity exchanges hedging and other strategic actions including options for dealing with international market instabilities.

At the national level, establishing strategic stocks of grains and strategic food commodities is practiced against risks and market instabilities. In Egypt, the Ministry of Social Solidarity (MOSS) and the General Authority of Supply Commodities (GASC) of the Ministry of Trade and Industry are responsible for building up the strategic stocks. While strategic stocks are costly and hard to manage the Government is satisfied with the implementation of the current policies and implemented practices. Therefore consultants have developed a research concept which does not cover this element of national risk management at this stage.

Accordingly, this research component considers only agricultural insurance schemes and future market/commodity exchanges options as major risk management measures/options in Egypt.

Key questions:

1. What crops should be covered?
2. Should the scheme be compulsory or voluntary?
3. Are data on quantitative losses available? What is the probable magnitude of damages by crops, region and type of hazard?
4. Who should implement the scheme? Cooperatives (after reform) or Government Agencies?
5. Is there a need for assessment of the technical, operational, and commercial feasibility of applying weather-indexed insurance or derivative products as part of disaster risk management strategies?
6. What are the possibilities for intermediation services for weather risk management transactions between the governments and the international market?
7. How much should the premiums be? Should the Government subsidize the calculated actuarially during early stages?
8. Who should cover the administrative cost?
9. Would the scheme be implemented in stages/gradually or in one shot?
10. Are there capacity building needs for cooperatives and Government staff, especially in the areas related to agro-meteorology, crop surveillance, and crop estimation systems?
11. How to utilize the funds that accrue from insurance payouts, for example, in designing safety net programmes that scale up on the basis of payments?

#### **3.3.5. Component V - Institutional Reforms for Higher Income and Governance**

A focus on governance to improve agricultural performance requires an emphasis on democratization, civil society participation, state reforms, corruption control, and decentralization. While political pronouncements indicate a commitment to decentralization and increased support for Egypt's rural population in terms of access to services and infrastructure,

serious research is needed into the area of legal and institutional reforms to promote participation of poor farmers on three fronts: voice, access to value chains, and access to extension services and financial services.

Though difficult to implement on a comprehensive scale, it is imperative to select the right mix of policy instruments to achieve good governance. The first and most important element is the state apparatus, followed by the private sector and civil society. Working together all three can contribute to creating a more hospitable environment for agriculture, with the specific objective of empowering the poor. Starting with the regulatory environment, it is necessary to identify the constraints that hamper production, trade and marketing in the same manner as has been undertaken on behalf of micro and small enterprises in the non-agricultural sector.

Evidence-based policy-making is a crucial element in ensuring that policies are both targeting the intended beneficiaries and ensuring the welfare of the society as a whole. Research, monitoring, and evaluation are integral components in designing policy that will succeed. Policy-design must use a research-based and results-based approach, and the evaluation of such policies must essentially be transformed into a process of learning. The issue of coordination of research and monitoring systems for agriculture is also an integral component of policy reform.

With this in mind the fifth and final research concept presented by the consultants incorporates the multidisciplinary approach, with a focus on institutional reforms, and asks the following key questions:

In the area of environment

1. What are the impacts of the current inefficient utilization (management) of agricultural residues on health, cost of production, farmers' income and rural employment opportunities?
2. How can regulatory measures be combined with targeted incentives to farmers and special subsidies and taxes be imposed so as to discontinue current farmer (and industrial) practices that harm the environment?
3. How can agricultural residues be transformed into valued intermediates via recycling processes that are economically efficient and environmentally friendly?

In the area of capacity building

1. What have been and continue to be the constraints on the delivery of valued and up-to-date agricultural extension services?
2. How can the system of communication and coordination between the R&D sector and the extension services be leveraged?
3. Are there opportunities for attracting human resources out of the civil service at the central (MALR) level to extension services at the local level? What type of training and incentives package can be proposed?

In the area of value chain analysis

1. How can competition be enhanced pertaining to the various links along the supply chain for traditional and high value crops?
2. What measures can be adopted at the levels of local government, local NGOs and the larger private operators in order to help farmers move along the value chain and take advantage of opportunities?

### 3.4. Modality of implementation

The issues, questions and research topics within the above areas constitute the basic framework of the proposed programme. The components were identified taking into consideration the on-going and planned activities of the national agencies and other partners in development in addition to the above mentioned guiding principles. It has been decided by IDRC that the modality of



implementing the research programme is outside the remit of this scoping survey. However whichever modality for implementation is decided upon it should take into account the overall framework of the research programme so as to be able to unify the programme components under that framework.

## 4. The Programme Components

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- 4.1. Component I                      Towards an integrated food security monitoring system; including the regular monitoring of the real effects of food insecurity at the household level

### 4.1.1. Background

#### 4.1.1.1. Definition of Household Food Security

- **Household** Food Security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

#### 4.1.1.2. FAO's Four Dimensions of Food Security

- **Food availability:** at the household level, food of sufficient quantity and quality must be available in the right place and at the right time.
- **Food access:** by households and individuals through adequate resources to produce and/or acquire appropriate foods for a nutritious diet.
- **Stability of access:** households and individuals should not be at high risk of losing access to food.
- **Food utilisation:** through adequate diet, clean water, sanitation, and health care, this also highlights the importance of nutrition and non-food inputs in food security as well as individual feeding practices.

#### 4.1.2. Key Stakeholders

Information on food security, nutrition and poverty is collected by the following ministries, public and private institutions: Ministry of Agriculture and Land Reclamation (MALR), Ministry of Trade and Industry, Ministry of Health; Ministry of Social Solidarity, Ministry of Planning, Chamber of Commerce, the Central Authority for Statistics and Mobilization (CAPMAS); various wholesale market authorities, various research centres and universities, (including Cairo University, specifically the Center for Economic and Financial Research, Faculty of Economics and Political Science and regional universities such as the university of Zagazig) various holding companies for commodity trade and storage, etc. Each ministry and institution (including the Ministry of Agriculture's Economic Affairs Sector and Extension Services) collects statistical data for their own use without specific attention to food security.

One key player in food security information collection is the newly established Food Security Information Centre (FSIC). The Ministerial Decree no. 16/2007 calls for the establishment of a national Food Security Information Centre within the MALR reporting directly to and supported by H.E. the Minister for Agriculture and Land Reclamation. The Centre is in charge of collecting, analysing and disseminating food security information and reporting to decision makers and stakeholders. Another Ministerial Decree no. 17/2007 was issued formulating the steering committee for the FSIC, including all concerned ministries and other related public and private institutions. The Ministry has made financial investments that cover the costs of establishment and operations of the FSIC for the first two years. Importantly the Ministerial Decree establishing the Centre allows it to accept further technical and financial support from international and donor organizations. It may also enter into collaborative arrangements with other existing R&D centres

Another key player in food security information collection is the Information and Decision Support Centre of the cabinet (IDSC). The Centre has developed a price monitoring system for basic commodities on a daily basis in ten governorates as well as a system for analyzing price fluctuations for sensitive commodities such as food and building materials. In parallel, IDSC also operates another unit within its premises which monitors the distribution of subsidized commodities, their cost and leakages. Regular reports from each unit are presented to the cabinet ministers and prime minister. An advantage of the IDSC mode of operation is that it immediately places the data sets it collects on its website for public use. IDSC has gained credibility with academia and researchers because of the quality of its work.

In addition to the above, FAO and WFP is assisting the Government with technical assistance and experience in the establishment of a food security information system for policy action.

Local and international nongovernmental organizations are working on the ground, many in the poorest areas of the country, collecting information and designing activities to address issues of food insecurity, however these organizations often do not have access to government data and in turn do not pass their own data on to the government in a formal manner. These organizations should not be overlooked as key players when addressing the issue of food security in the country.

### **4.1.3. Justification**

#### **4.1.3.1. The Magnitude of the Food Consumption Problem**

According to WFP and IFPRI in 2000,<sup>9</sup>(i.e. before the devaluation of the Egyptian pound and before the food price rises of the last two years) there was evidence of “ a fairly serious problem of food insecurity in terms of inadequate energy consumption in Egypt. Assuming that the actual RDA for Egypt may fall between 2200 and 2341 calories, between 15 and 21% of the population may be facing a problem of under consumption of calories ... these findings indicate that the problem of inadequate food consumption may be affecting between 9.6 million and 13.5 million people.”

The “vulnerability analysis and food subsidy” study, completed in 2005 by WFP and the Government, revealed that food and nutritional insecurity issues in Egypt are largely related to food access and utilization as well as access to potable water and a healthy and sanitary environment.

The WFP/GoE study also showed that malnutrition in Egypt is linked to poverty, and about 26 percent of children under 5 experienced malnutrition, with stunting highest in Upper Egypt. In the most vulnerable households, about 32 percent of the children were stunted, especially those in larger households; in male, (rather than female), headed households; in rural areas; in households with illiterate adults; and in households with unemployed adults or those where adult members do not have access to skilled or permanent employment.

The Egypt Human Development Report (2008) shows that at a national level the percentage of underweight children aged 0-5 grew between 2004 and 2006. This is clearly a worrying trend.

The above underscores the importance of focusing on the issue of food insecurity in Egypt.

#### **4.1.3.2. Food Insecurity and Government Policies**

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<sup>9</sup> Neville Edirisinghe, Asmaa El-Ganainy Estimation of Caloric Consumption using the 1997 Egypt's Integrated Household Survey (EIHS) conducted by the International Food Policy Research Institute (IFPRI). WFP (June, 2000)

Food security analysis lends an added dimension to an economic analysis. For example when looking at the economics of agriculture in Egypt over the last decade it is possible to get two different readings of the situation. In the first instance one can see that a shift to export agriculture and a liberalisation of the agricultural market has led to an increase in the value of production. From one level of analysis this is a positive trend. On the other hand when looking at the food security of poor farmers it is found that they have become more food insecure. Further analysis resolves the apparent inconsistency:

A shift in macro-policies during the late 1990s resulted in institutional changes with negative consequences for farmers. A study in (1999)<sup>10</sup> noted that since the implementation of the Land Tenure Law, small and landless farmers have limited access to agricultural cooperatives. Tenants who became “landless” - and thus no longer “owners” of either agricultural assets or non-agricultural assets (animals) - can no longer access resources of cooperatives. In addition, cooperatives no longer sell subsidized goods on credit, to the detriment of the small farmer. Thus while larger farmers are gaining from being able to access export markets small farmers are faced with multiple disadvantages.

Similarly, the change in the role of the Principle Bank for Development and Agricultural Credit (PBDAC) - which was previously involved in the marketing of all agricultural inputs and outputs till 1992, and also provided credit to farmers - had negative consequences for small farmers. The shift to market/open economy has led to the increasing vulnerability of small farmers.

It is clear from the above that government policies aimed at the overall growth of the agriculture sector inadvertently had a negative effect on the food security of small farmers. In the current volatile market of food stuffs coupled with the financial crisis, there is clearly a need to protect the more vulnerable, including small farmers. Further studies which focus on these vulnerable groups both rural and urban can lead to informing policy makers, enabling them to enact policies which prioritise and protect these groups.

#### **4.1.3.3. The importance of information sharing and the involvement of Civil Society**

Egypt has a long history and familiarity with the collection and analysis of statistical data for various purposes. Nevertheless, at present specific accurate data relating to food insecurity and vulnerability is inadequate. Food security information in Egypt is scattered among a number of ministries, public and private institutions and NGOs. While the Food Security Information Centre (FSIC) in collaboration with FAO is working to standardise much of this information, support is needed to strengthen the FSIC, to focus attention on the vulnerable and include civil society in combating food insecurity.<sup>11</sup>

Egypt would benefit tremendously from enhancement of its established mechanisms for sharing, collecting, synthesizing, and harmonizing food security relevant information. The FAO Food Insecurity and Vulnerability Information and Mapping System (FIVIMS) project goes some way towards this however more work can be done to strengthen policy and programme formulation and targeting of government investment.

In addition, all levels of civil society including local and international NGOs need to join the government in the effective monitoring of progress in reducing poverty and undernourishment in the country and the achievement of the World Food Summit and Millennium Development Goals.

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<sup>10</sup> Abdel-Aal, Mohamed and Reem Saad. (1999). *Social And Economic Impact Of The New Egyptian Land Reform Law Legislation On Rural Economy*. Cairo: SRC.

<sup>11</sup> For more information on FSIC see Annex II – Focus Group 3

#### **4.1.3.4. Data Gaps**

Most of the relevant food security data that is available in the country suffers from lack of standardization. Data collected by different institutions often use different methodologies and sampling frames making their findings often not comparable or completely contradictory. Because of the lack of coordination between data producers, there have been problems of duplication of effort between various institutions. Access to information represents a serious problem in Egypt. Data from the ministries is not often made readily available to stakeholders both from the private and public sectors. Data produced by CAPMAS is generally not made available to potential users.<sup>12</sup>

Policy makers, UN agencies and NGOs in Egypt often suffer from lack of reliable data and information to support policies, programme planning and food security interventions. Given that information is so scattered and the framework for compiling and analysing necessary food security information is not currently effective, food security decision making processes are based on incomplete information that is often not transparent and straightforward.

With the increase and then rapid fluctuation of prices over the last two years, it is clear that there is an increase in the number of food insecure in the country. What is less clear is how the poorest have dealt with the difficulties they are facing with increasing limited access to food. It is expected that poor families are substituting more expensive foods with cheaper substitutes, that there is an increase in debt and that other coping mechanisms are being used.

Research in the areas of this component identified the need for a monitoring system to answer the key questions of: how do households cope with “shocks to food access” i.e. what are their coping mechanisms? And what is the actual consumption of poor and vulnerable families, and how does this change in response to change over time particularly in the current environment of instability in many household’s access to food. This component note argues that this information is needed on a regular basis and not in the form of a one shot survey.

Answering these critical questions will need regular data collection from the field. This coupled with aggregated and harmonised existing data from the stakeholders identified would lend to a clear up-to-date and accurate assessment of the food security situation of Egyptian households. The stakeholders will then be able to use this for informed policy and programme actions.

#### **4.1.3.5. Food consumption and Nutrition**

This component in the research programme will support the establishment of a cost effective system for monitoring of food intake that can also serve as an early warning mechanism for directing appropriate interventions where they are most needed. The proposed system exploits food, demographic and socio-economic data collected through National Household Expenditure Budget Surveys (HBS) in order to develop a cost effective databank that allows monitoring food availability based on validated information and assuring continuity over time. It thus becomes urgent to establish a cost effective system for monitoring of food availability and consumption patterns in order to monitor and better mitigate the emerging nutritional problems. The latest Demographic and Health Survey (preliminary results released October 2008) has demonstrated the expected increase in national figures for malnutrition and stunting. The very recent decision to undertake the Household Expenditure and Budget Surveys every two years, in lieu of five, with the aim of better monitoring the evolution in the vulnerability of the households is in favour of using a food availability monitoring system based on analysis of household budget data.<sup>13</sup>

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<sup>12</sup> <sup>12</sup> See annex III – workshop notes section on “Data collection and quality”

<sup>13</sup> This paragraph was contributed by Dr. Habiba Hassan Wassef, medical nutritionist and former staff of WHO

#### 4.1.4. Objectives

The proposed Action Research builds on the FIVIMS project; it is centred on the FSIC with the aim of enhancing the participation of other stakeholders including NGOs and UN agencies. This component identifies the possible synergy which these organisations can lend to both data collection, and information sharing which can enhance decision making at the national policy level and the programme level. By engaging and involving civil society as well as government and UN agencies the research will enable all sectors of society to both participate in and own the information on food security which has been identified by them as important for their work.

Currently NGOs are collecting data in specific geographic focus areas, in an uncoordinated manner. NGOs need technical support, and a coordination effort to enable them to collect relevant data which would lead to a national level analysis.

UN agencies such as FAO, WFP and UNICEF possess a wealth of technical expertise and importantly the mandate with which to enhance the proposed research. They would also benefit from the information gained for their own programmes.

The FSIC would be technically supported by UN agencies and would also gain access to information and resources currently with UN agencies and NGOs. The FSIC and the Ministry of Agriculture and Land Reclamation have expressed interest in collaborating on research in this area.

The following specific objectives have been identified for the proposed research:

- 1. The establishment of a continuous process of data collection and analysis of food security in Egypt.**
- 2. Monitoring the impact of changing food consumption patterns on nutrition**
- 3. Building the capacity of the FSIC in the areas of data collection and analysis.**
- 4. Building the capacity of non-governmental organisations for data collection analysis.**
- 5. The sharing of data and information between the government, the UN and non-governmental organisations.**
- 6. Enabling both policy makers at the government level and NGOs to make informed decisions on policies or programmes targeted at the food insecure and vulnerable.**
- 7. Focusing attention of policy makers and civil society on the importance of food security and pro-poor analysis.**

#### 4.1.5. Outputs

The outputs of this component are as follows:

- 1. Support to regular, accurate assessment of the state of food security and food consumption, and coping mechanisms of Egyptian households.**
- 2. A clear picture on how changing consumption patterns at the household level affect nutrition**
- 3. A strengthened and more effective FSIC**
- 4. Increased capacity of NGOs**

5. **With information reaching ministerial levels, as well as UN and nongovernmental organisations policies and programmes are informed and directed at supporting the food insecure and vulnerable.**
6. **Coordinated information sharing between stakeholders**
7. **A greater focus by all stakeholders on the importance of the issues relating to food security and vulnerability in Egypt.**

#### **4.1.6. Activities**

The proposed action research would be implemented in through a number of activities they are listed as follows:

##### **4.1.6.1. Coordination and establishment of a partnership**

A formal partnership would be established between selected NGOs UN agencies and the FSIC. It is suggested that because of the number of interested NGOs (both national and international) that they would be represented by one or two selected NGOs who would act as representatives of a consortium of NGOs. The partners would present their relative strengths and needs to take the action research forward. The roles and responsibilities of each of the partners will be identified and formalised in the partnership agreement. Discussions undertaken during the formulation of this component with the FSIC, FAO, WFP, CARE and Save the Children, all indicate that they are initially willing to dedicate time and resources towards this component of the research.

##### **4.1.6.2. Research design**

The partners of this component would form a coordination committee which may include technical subgroups. The goal of the committee and subgroups would be to agree on research questions and methodology. In addition to the overall goals identified in this research concept note more specific goals and objectives will be identified by the partnership.

As stated in this concept note much information is already available, and through this research project assistance will be lent to FSIC in collecting and analysing this data. However up-to-date information on food consumption and household coping mechanisms will also be collected from the field. The partnership has the capacity to both collect available data and implement a field survey. The partners have the existing field workers and will receive support through the project to enable these field workers to regularly collect field data.

Regular data collection can be laborious and expensive. To address both of these issues, and enhance sustainability the concept note proposes using existing field workers both from NGOs and from MALR to carry out the data collection. In addition it is recommended that the survey forms are kept as simple and short as possible to reduce error margins and enhance efficiency.

##### **4.1.6.3. Training and capacity building**

FSIC and MALR staff and NGO staff would receive intensive training in data collection techniques. This training would be divided into phases, in which data collectors are given an initial phase of training and then on-the-job training and refresher training as data starts to be collected.

##### **4.1.6.4. Data collection and analysis**

A continuous cyclical process of data collection will be established whereby data can be collected on the regular basis and analysed. This could be quarterly or semi-annual. The main analysis

would be housed in FSIC however other consortium members should have access to raw data which could then be analysed separately for their own implementation purposes.

#### **4.1.6.5. Analysis dissemination and policy / programme adjustment**

Once the first set of data is collected both from the field and from existing sources and then analysed, the information dissemination system between the partners (and to any other identified stakeholders) would be tested and adjusted to provide maxim efficiency. It is anticipated that the information will allow the partners and stakeholders to adjust their programmes and policies in an adequately informed manner.

#### **4.1.7. Time frame and sustainability**

IDRC would be involved in this project for about three years although it is hoped that the formulation of this project would result in long-term and continued monitoring of the food security and vulnerability of the poor population of Egypt. Thus the project is designed with the intention that the participation of the different organisations involved in the partnership would be sustainable after the end of IDSC's involvement. It is foreseen that IDRC's input in the project would catalyse the partnership and provide the initial resources and technical expertise necessary for start up. Therefore this component would assume that IDSC involvement would not last longer than two to three years. The exact duration of the project would be defined if the research component is approved and a proposal is developed.



## 4.2. Component II                      Competitiveness and Policy Options for Agricultural Development in Egypt

### 4.2.1. Background and Rationale:

The prices of many staple food commodities have increased substantially over 2007/2008 and the FAO food price index increased by 57 percent between March 2007 and March 2008, compared to an increase of 9 percent in 2006. High food prices would normally be expected to act as a production incentive. However, from January 2007 to April 2008, input prices (fertilizers and crude oil) increased more rapidly than food prices and thereby dampened the positive production incentive created by the food price increases. Small-scale farmers who are net food buyers may be particularly hurt, as the high food prices also reduce the funds they have available to purchase fertilizers. But particularly hard hit were smallholders-poor subsistence producers who have been confronted with higher input prices without producing a marketable surplus that would earn them higher revenues. Thus, a casual glance at the most recent production statistics (FAO, 2008) reveals that most of the production increase of the last two years arose in developed countries. The benefits of higher prices have not accrued to producers in many developing countries, for their supply response was small in 2007 and virtually zero in 2008. At the same time, in several countries, high international prices were not always and not fully transmitted to domestic markets, burdening farmers with higher costs and stagnant output prices.

The global supply response for increased international food prices during 2007/2008 period reached about 12%. According to FAO, most of this increase (about 9%) was from developed countries, and if China, India, and Brazil are not considered, supply response from other developing countries is virtually zero. Thus, experiences show that most of developing countries did not benefit from the increase in international food prices and food supply did not increase accordingly. This was mainly due to the fact that there are several constraints along the commodity chain including administrative constraints in addition to the distorted incentive structure facing the agricultural and livestock producers and the relatively higher increase in energy, transportation and fertilizers costs. It is therefore important to seize this window of opportunity to assess how to avoid undesirable subsequent crises by facilitating adequate supply and marketing responses in addressing the longer-term challenges.

This research component will support and further extend the analysis included in the Strategy Document: Horizon 2030. Such analysis will be instrumental for any further coping strategy for prices fluctuations and in planning sustainable agricultural development in Egypt under the new market oriented environment.

The sustainable and stable supply and marketing responses to changes in international and domestic prices will surely adjust availability of food in the market. The research component addresses the Government's general objective to increase and improve the competitiveness of agricultural production in foreign markets and optimal exploitation of agricultural resources, particularly land and water, to insure its sustainability and preserve the environment. It addresses several specific policies highlighted in the Egypt Agriculture Strategy for 2030 concerning the achievement of higher levels of self reliance based on comparative advantage and sustainable resources utilization of the scarce land and water resources. It also conforms to the strategic directives of supporting small farmers and adopting a comprehensive approach in dealing with packages to develop production, processing and marketing of agricultural products.

### 4.2.2. Objectives

Support the decision makers (Ministry of Agriculture and Land Reclamation, and Ministry of Social Solidarity) in mid-term planning and policy analysis/formulation for agricultural

development in Egypt under the prevailing internal development and international environment. More specifically, the envisaged research will support these Institutes in formulating Policy Options and Priorities at the sector level based on detailed comparative advantages and competitiveness indicators taking into considerations environmental, institutional, agronomic, economic and trade constraints and potential.

The component's objective is to provide recommendations and concrete multidisciplinary measures to increase the competitiveness of the agricultural sector in Egypt with targeting policy directives to the poor segment and small holders. To achieve this objective, the research project would provide policy makers with options to:

- ensure the provision of adequate food supplies through cropping pattern and domestic market management or trade, or by stimulating a short-run supply response from the domestic agricultural sector under water and other constraints; and
- provide options on how best to streamline and target the direct support to producers, especially to the most vulnerable population groups, to assist them in maintaining adequate and stable supply and marketing responses.

### **4.2.3. Analytical Methods**

The study will use a policy analysis matrix to establish comparative advantage in the agriculture sector under several policy scenarios and options<sup>14</sup>. Establishing Comparative Advantage and Competitiveness of the agriculture sector in Egypt is key to sound policy decisions for the sustainable utilization of the country's scarce natural resources and to better enhance possibilities for commodities and aggregate supply and marketing responses. It enables MALR to establish the current incentive structure facing key commodities. The incentive structure facing farmers is analyzed through the calculation of Nominal Protection Coefficients (NPCs) and Effective Protection Coefficients (EPCs), estimated by direct price comparison between domestic and border prices, at the prevailing exchange rate. The underlying rationale is that such a divergence represents the presence of market intervention such as taxes, subsidies, government control prices and other policy intervention. Accordingly, the divergence can be used as an indicator of whether domestic producers are receiving an incentive or disincentive vis-a-vis the price they would receive in the absence of price interventions. The EPC attempts to measure the impact upon value added in a production process of the whole structure of price distortion facing each commodity. It evaluates distortion not only at output market, but also incorporates the effect of price interventions on tradable inputs used in the production of these crops and thus captures the effects of price related interventions on returns (e.g. value added) to primary factors of production, that is labour, land, and owned capital. The efficiency of resource use is evaluated using the concept of Domestic Resources Cost (DRC). The concept builds upon the notion of effective protection coefficient, but values resources at the economy's opportunity cost of such resources, rather than at the actual domestic market prices. Using the DRC indicator, the proposed research component will evaluate what would be the potential competitiveness of the various activities in the absence of distortions in factor and products markets. It will also take into account the ecological zones of the country, and technology levels used in the farming systems. The above analysis will be carried out taking into consideration the institutional, agronomic, environmental, economic and trade interrelationships. The following activities are envisaged under this component.

- Identify ecological zones and select key commodities
- Prepare crop budgets based on secondary data or field survey
- Prepare import export parity prices for traded commodities
- Establish opportunity cost for domestic factors

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<sup>14</sup> Background paper contributed by Economics Affairs Sector, Ministry of Agriculture and Land Reclamation, Faculty of Agriculture, Zagazig University and the National Planning Institute, Cairo to consultants on this project.

- Prepare economic budgets
- Prepare policy matrix based on private and economic budgets
- Undertake simulation exercise (sensitivity analysis) in close collaboration with MOA
- Discuss preliminary results through an informal workshop and finalize the results

The following questions will be addressed:

- i. Who loses and who gains from price increases?
- ii. What are the relative importance and implications on farm and non-farm income?
- iii. Are there comparative advantages for crops and livestock products based on ecological zones and farming systems?
- iv. How is the farmer responding to prices changes for specific commodities (wheat, rice, vegetable oils, sugar, corn, etc.) to enhance availability?
- v. What are the impacts of subsidy alternatives on farming profitability and incentives under different farming systems, water and irrigation levels?
- vi. Would profitability and incentives change under different assumptions of possible climate change scenarios?
- vii. Which commodities more sensible to price increases?
- viii. How small holders and landless are affected?
- ix. What is the possible aggregate supply response?
- x. Why the recent increase in feed prices and the increase in slaughter by smallholders accompanied the observation that red meat prices in secondary markets increased? The increase in market prices indicates that animal holders maintained their herds!
- xi. What are the production coping strategies for livestock holders under price fluctuations and possible upward increase?

#### **4.2.4.Improving Competitiveness of the sector**

For activities which have shown a strong comparative advantage, the component would study its contribution and rate of growth. Most importantly it will underpin activities that carry good comparative advantage but cannot compete due to lack of conducive macro and trade policies, Conducive sectoral policies, market information, planting material regulations, agriculture technology transfer, post harvest handling, pesticide regulations, food processing methods, taxes, and other environmental concerns.

In summary, the envisaged IDRC research component may include the following: (i) identifying/assessing comparative advantage and competitiveness for the key commodities in the agriculture sector and taking into account various ecological zones (according to the detailed methodology mentioned above); and (iii) recommend policy options and priorities for the short and long-term development of agriculture.

#### **4.2.5. Incorporating Climate Changes and Environment Impact Assessment in the Analysis**

Once the base scenario has been analyzed, the study is intended to analyze the impact of some governing factors such as:

- international prices
- irrigation water cost
- exchange rate
- climate changes and environmental impacts (externalities)

Projections of changing future world prices, technologies, climate changes, environment, and factor prices can be made to simulate paths of dynamic comparative advantage, as social costs and benefits change in response to varying parameters. The PAM approach can thus be used to illuminate baseline conditions and then to measure the effects of changing price, macroeconomic,

or investment policies on the private and social profits of agricultural systems in the base year or in the future as key parameters change.

#### **4.2.6. Data Sources**

The PAM frameworks provide a comprehensive set of data. Collecting the data needed and manipulating it is the hardest part of this approach. Sometimes, unavailability of data required is a major constraint. The Central Administration of Agricultural Economics and Statistics of the Ministry of Agriculture and Land Reclamation (MALR) produces data on input technical coefficients, cost of production and output prices.

The main sources of data for world prices, official exchange rate, values of exports and imports, and taxes on International trade and transactions are: International Monetary Fund (IMF), “International Financial Statistics Yearbook (IFS)””; “Direction of Trade Statistics Yearbook (DOTS)””; “Government Finance Statistics Yearbook (GFS)””; United States Department of Agriculture (USDA); and Food and Agriculture Organization (FAO) of the United Nation (UN), “FAOSTAT.PC”.

The annual “Agricultural Economic Bulletin” issued by MALR gives production cost in monetary values only. Big effort and financial resources are needed to make the break- down of these costs into quantity and unit price. Industrial factors needed for CCA envisage some visits to factories associated with the analyzed commodity. Number of factories to be visited depends on the commodities to be analyzed.

#### **4.2.7. Outputs**

(1) Detailed research report(s) assessing the comparative advantage and competitiveness of major crops and livestock systems under different farming models in different agro-ecological zones. The report(s) will also include the commodity chain analysis for the selected vegetal and livestock commodities. In particular, the research report will focus on the following indicators/issues:

- Financial and social profitability
- Measures of Economic Protection
- The economic protection (incentive structure) facing the agricultural sector expressed by nominal protection coefficients (NPC) and effective protection coefficients (EPC).
- Measures of Economic Efficiency
- The efficiency of resource use (comparative advantage) evaluated by domestic resource cost (DRC).
- Financial and social return to land and to water.
- Assessment of marketing bottlenecks in each commodity chain

(2) About 40 trained national staff in the assessment of supply response, comparative advantage analysis and competitiveness.

(3) In addition to the main research report, the research project will produce an updated farm data handbook including basic analysis to be updated regularly by MALR as part of their annual plan.

(4) A national Policy Workshop to discuss preliminary results and to be attended by the research team as well as representatives from concerned national and international agencies/partners in development in Egypt.

#### **4.2.8. Activities and work plan**

In the PAM part of the study 2 sub-sectors will be recognized: crops and livestock (major crops and major livestock systems). As for vegetal production, the proposed study will deal with 7 agro-ecological zones: East Delta, Mid-Delta, West Delta, Middle Egypt, Upper Egypt, New Land, and National. Under these 7 zones the study analyzes 5 winter crops, 5 summer crops and sugarcane as perennial crop. The winter crops are: wheat, broad beans, short berseem, long berseem, and sugar beet. The summer crops are cotton, rice, maize, soybean, and sunflower. In addition to these 11 crops the study will analyze 3 horticultures: summer potatoes, strawberries and oranges.

The total number of budgets of different crops under different zones will amount 65 budgets. In addition to crops, the study will analyze 7 major crop rotations: Wheat + Rice; Wheat + Maize; Short Berseem + Cotton; Long Berseem + Rice; Long Berseem + Maize; Broad Beans + Cotton; Broad Beans + Maize.

For livestock, the study analyzes 11 livestock models under 2 zones (lower and upper Egypt): layer small and large scales, broiler small and large scales, baladi, buffalo, cross-bred and exotic dairy, native and buffalo fattening and fish.

### 4.3. Component III Impacts on Internal Market and its Re-governance

#### 4.3.1. Background and Justification

The most recent falling prices seem to have little to do with recovering global supplies but instead are being driven downwards by slowing demand. This is being evidenced by the fact that almost all commodity prices are declining in unison alongside a deteriorating global economic outlook. The entrenchment of the global financial crisis could mean that the economic slump at the global level may even be faster and more severe than earlier anticipated. To the extent prices do reflect an anticipated slow-down in economic growth that constricts demand; lower prices may even be associated with more poverty and hunger rather than less.

This is of importance since the changes in the international and hence in domestic agricultural prices (assuming that price changes are transferred to the domestic market), have great impact on production and trade decisions and on the allocation of scarce resources. The transfer of international prices changes to domestic market prices depends on several factors including transportation cost, handling, loading and unloading costs, wage rates, administrative cost, and banking fees, as applicable. The benefit from international food price increase will be felt for farmers producing such tradable goods, if the price changes are reflected in domestic prices, and if other constraints are removed.

The sustainable and stable marketing responses to changes in international and domestic prices will surely adjust stability and availability of food in the market. The research component addresses the Government's general objective to increase and improve the internal markets re-governance and enhancing competitiveness of agricultural production in foreign markets. It addresses several specific policies highlighted in the Egypt Agriculture Strategy for 2030 concerning the improvement of market structure and marketing services. It also conforms to the strategic directives of supporting private sector marketing agencies and adopting a comprehensive approach in dealing with packages to develop production, processing and marketing of agricultural products.

Successful implementation of the research project can provide timely answers and advice to increase trade agencies through contract growing arrangements, provide the post-harvest grading and packing facilities needed by the horticultural sub-sector, increase Egypt contacts with international markets and alleviate the current trade deficit in the agricultural sector.

#### 4.3.2. Objectives

The project's overall objective is to provide recommendations and concrete multidisciplinary measures to increase the competitiveness of the agricultural sector in Egypt with targeting policy directives to the poor segment and small holders.

#### 4.3.3. Analytical Method

A commodity chain describes the course of all the economic operations (technological processes, allocation of resources, distribution of revenue, etc.) involved in the progressive transformation of an initial raw material. On the whole, it describes a "value adding progression". Commodity chain analysis provides a good understanding of the entire commodity system structure and functioning,

including the quantification of the commodity flows from primary production to final consumption or export<sup>15</sup>.

It is usual to start a Commodity/Value Chain Analysis from the primary activity of agricultural production of the commodity which gives its name to the commodity chain under analysis. Following are the systematic steps that will be used to construct a CCA:

- Demarcating the boundaries of the chain:
  - identification of activities and flows between them
  - identification of agents in the chain
  - functional analysis
  - creating a flowchart for a commodity chain
  - Quantifying the physical flows
- Financial analysis (value added, production account, trading Account, consolidated account of the chain)
- Analyses (financial profitability of activities in the chain, overall efficiency of the chain, price formation, analysis of transfers)

The following questions will be addressed in that regard:

- xii. Were prices increases channelled to farmers?
- xiii. Who loses and who gains from prices increases?
- xiv. What are the constraints and bottlenecks for enhancing production and marketing efficiency for major crops and livestock products at all stages within the value chain of these products?
- xv. What are the rules and regulations for inhibiting the further development of inputs markets and quality control? Implications on water resources use?
- xvi. What are the impacts of major water demand management measures on incentives structure in the agricultural sector?

#### **4.3.4. Data Needed**

Collecting the data needed and manipulating it for the CCA is the hardest part of this approach. The Central Administration of Agricultural Economics and Statistics of the Ministry of Agriculture and Land Reclamation (MALR) and the Ministry of Industry and Trade will be the major sources of information. The main sources of data for world prices, official exchange rate, values of exports and imports, and taxes on International trade and transactions are: International Monetary Fund (IMF), "International Financial Statistics Yearbook (IFS)"; "Direction of Trade Statistics Yearbook (DOTS)"; "Government Finance Statistics Yearbook (GFS)"; United States Department of Agriculture (USDA); and Food and Agriculture Organization (FAO) of the United Nation (UN), "FAOSTAT.PC". The annual "Agricultural Economic Bulletin" issued by MALR gives production cost in monetary values only. Big effort and financial resources are needed to make the break- down of these costs into quantity and unit price. Industrial factors needed for CCA envisage some visits to factories associated with the analyzed commodity. Number of factories to be visited depends on the commodities to be analyzed.

In addition a limited market survey will be conducted to verify specific data and to collect specific information related to margins, market structure, and marketing agencies.

The CCA study will include major strategic crops and major livestock products.

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<sup>15</sup> Background paper contributed by Faculty of Agriculture, Zagazig University and the National Planning Institute, Cairo to consultants on this project.

#### **4.3.5. Outputs**

(1) Detailed research report(s) assessing the internal market implications including the commodity chain analysis for the selected crops and livestock commodities. In particular, the research report will focus on the following indicators/issues:

- Price formation throughout the chain and the value added amongst the different agents for the consolidated chain.
- Assessment of marketing bottlenecks in each commodity chain
- Assessment and reaching policy oriented recommendations regarding marketing and trade potential;

(2) About 20 trained national staff in the assessment of value chain analysis and internal markets analysis.

(3) A national Policy Workshop to discuss preliminary results and to be attended by the research team as well as representatives from concerned national and international agencies/partners in development in Egypt.



## 4.4. Component IV      Agricultural Risk Management

### 4.4.1. Background and Justification

Agricultural production is inherently a high-risk activity, but recent years have seen an increase in both the level and variability of food prices on world markets. In addition to price volatility, smallholders—and indeed most farmers—lack access to crop or livestock insurance and other risk-reducing instruments that can help them deal with production variability. Lack of insurance leads farmers to adopt more risk-averse production strategies, or to diversify economic activities away from agriculture. This constraint limits intensification of agricultural production, or adoption of more modern agricultural technologies.

At the national level, establishing strategic stocks of grains and strategic food commodities is practiced against risks and market instabilities. In Egypt, the Ministry of Social Solidarity (MOSS) and the General Authority of Supply Commodities (GASC) of the Ministry of Trade and Industry are responsible for building up the strategic stocks. Experiences in developing countries showed that carrying out strategic stocks is costly and hard to manage. In addition, the volume, location and rules for building and replenishing these stocks need to be carefully assessed and planned in advance. However, the Government is satisfied with the implementation of the current policies and implemented practices. Accordingly, the research component does not cover this element of national risk management at this stage.

Recent international experience has been oriented towards adopting less costly and reliable market-based risk management measures. Several measures have been developed, and widely applied for years (e.g. agricultural insurance and commodity exchange), while other innovative measures are primarily used in developed countries and being piloted in developing countries (e.g. weather based index, structured finance, securitization). In many cases, it is recommended to use a combination of these measures to get the desired results. The following provides a brief introduction to selected market based measures for future considerations. Under each measure, a brief description of the underlying principles is provided with an indication of available information on country experiences.

The establishment of an efficient “Market Information Service” (although not a risk management measure by itself) facilitates the adoption of other measures such as commodity exchange and agricultural insurance.

A market information system is a service that involves the (1) collection, on a regular basis, of information on prices and, in some cases, quantities of widely traded agricultural products from rural assembly markets and/or wholesale markets and (2) dissemination of this information on a timely and regular basis through various media to farmers, traders, government officials, policy-makers and others, including consumers.

Efficient market information services can provide many benefits. The information provided by such services can be useful in at least three different ways: (1) immediate commercial decisions: improving the bargaining position of farmers with traders and processors; reducing risks; equalizing prices in different markets; and identifying distant markets; (2) longer-term decisions by farmers and traders: facilitating efficient allocation of productive resources; helping farmers to adjust their marketing practices; facilitating contractual arrangements; facilitating storage decisions; developing trade; and facilitating extra and intra-regional trade; and (3) statistical and planning purposes: assisting in government planning; and identifying food security problems.

Establishing an efficient MIS is an important initial step towards improving marketing and trade information structure; and hence for establishing commodity exchanges<sup>16</sup>.

#### **4.4.2. Objectives**

This research component will provide options to governments and major private sector entities to identify how market-based risk management measures can be incorporated in national policies and commercial strategies.

#### **4.4.3. Outputs**

The research component has two major elements of focus:

- 1) Insurance – Takaful - Scheme
- 2) Commodity Exchange and Future Markets Options

##### **4.4.3.1. Innovative Insurance (Takaful) Measures**

Farmers are exposed year round to a variety of risks, both market-related (e.g. price variations) and non-market-related (e.g. unfavourable weather, pests, and diseases). These risks make agricultural production unstable from year to year, affecting the income and welfare of agricultural producers.

Agricultural insurance is a financial tool to minimize the adverse effects of these agricultural risks and has been devised to address agricultural production or yield risks that are mainly due to adverse climate. Agricultural insurance permits reduction in risk costs by spreading risks in three ways, (1) among farmers; (2) to other sectors of economy; and (3) over time<sup>17</sup>.

However, as agriculture is becoming more sophisticated, producers, marketing companies and bankers are demanding insurance to cover a greater number of risks. Complying with this demand and in order to overcome the limitations of traditional agricultural insurance that originates from the characteristics of agricultural risks (occurring over a wide area at the same time, etc.), new insurance products, schemes and alternatives are continuously being developed<sup>18</sup>.

Innovations of agricultural insurance products and schemes include:

- Revenue insurance;
- Whole-farm insurance;
- Livestock price insurance;
- Index-based insurance;
- Area-based yield insurance; and
- Weather-based index insurance.

Additional innovative risk management tools – alternatives to insurance include:

- Self-insurance through preferential savings;

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<sup>16</sup> Market information Systems and Agricultural Commodity Exchange: Strengthening Market Signals and Institutions, Technical Centre for Agricultural and Rural Cooperation (ACP-EU), Amsterdam, 2005.

<sup>17</sup> Financing Agricultural Marketing: The Asia Experience, Food and Agriculture Organization of the United Nations, Rome, 2004.

<sup>18</sup> Innovative agricultural insurance products and schemes, Food and Agriculture Organization of the United Nations, Rome, 2007.

- Market-based commodity price risk management instruments;
- Weather derivatives;
- Insurance securitization; and
- Area-yield reinsurance and options.

Weather based index insurance represents an increasingly popular alternative to the traditional yield based insurance systems. This product is based on local weather indices, and the indemnification is triggered by pre-specified patterns of the weather index, not by yields. In contrast with traditional crop insurance, weather-based index insurance is less expensive to administer since contracts are uniform and no on-farm inspections or loss assessment are required. The successful introduction of such programmes, however, requires better weather stations, higher quality weather data, and a sound regulatory, and institutional environment. None of the weather based insurance products that were sold so far, in the countries adopting the system, are subsidized. The premium typically ranges between 8-10% of insured amount. Because the insurance is based on reliable and independently verifiable index, it can be reinsured by allowing insurance companies to transfer part of the risk efficiently to international markets. The World Wide Weather Derivative Market is a huge market with over \$28 billion transacted as of December 2006.

Most of the innovative insurance measures are being piloted in East and Central Europe. Many developing countries still need additional support in creating a conducive environment for the emergence/growth of such activities. Also, agricultural/rural companies, financial intermediaries and/or farmers need training on the availability and use of such products. However, weather based index insurance was successfully introduced in India. Other programmes are either ongoing or planned for in Ukraine, Mongolia, Ethiopia, Malawi, Kenya, Tanzania, Thailand and Central America. The two approaches of the use of seasonal precipitation forecasts for risk reduction (for example, choosing seed varieties that can perform well for expected rainfall conditions), and the use of innovative financial instruments for risk sharing (for example, index-based weather insurance bundled to microcredit for agricultural inputs) were always separated. These two approaches have been integrated in Malawi into an ongoing pilot insurance scheme for smallholder farmers. A system adjusts the amount of high yield agricultural inputs given to farmers to favourable or unfavourable rainfall conditions expected for the season. An attempt is being made with the support of the EU to generalize this approach.

The major research questions to be addressed are:

1. What is the actual size, structure and preference for farmers demand?
2. What crops should be covered?
3. Should the scheme be compulsory or voluntary?
4. Are data on quantitative losses available? What is the probable magnitude of damages by crops, region and type of hazard?
5. Who should implement the scheme? Cooperatives (after reform) or Government Agencies?
6. Is there a need for assessment of the technical, operational, and commercial feasibility of applying weather-indexed insurance or derivative products as part of disaster risk management strategies?
7. What are the possibilities for intermediation services for weather risk management transactions between the governments and the international market?
8. How much should the premiums be? Should the Government subsidize the calculated actuarially during early stages?
9. Who should cover the administrative cost?
10. Would the scheme be implemented in stages/gradually or in one shot?

11. Are there capacity building needs for cooperatives and Government staff, especially in the areas related to agro-meteorology, crop surveillance, and crop estimation systems?
12. How to utilize the funds that accrue from insurance payouts, for example, in designing safety net programmes that scale up on the basis of payments?

It is important to note that WTO regulations exempted “the payments made by way of government financial participation in crop insurance schemes” from reduction commitment. Eligibility for such payments follows specific requirements including that it should arise only following a formal recognition by government authorities that a natural or like disaster (including disease outbreaks, pest infestations, nuclear accidents, and war on the territory of the Member concerned) has occurred or is occurring. It shall be determined by a production loss which exceeds 30 per cent of the average of production in the preceding three-year period or a three-year average based on the preceding five-year period, excluding the highest and the lowest entry. Also, the WTO regulations state that payments made following a disaster shall be applied only in respect of losses of income, livestock (including payments in connection with the veterinary treatment of animals), land or other production factors due to the natural disaster in question. Meanwhile, payments should compensate for not more than the total cost of replacing such losses and shall not require or specify the type or quantity of future production.

#### **4.4.3.2. Commodity Exchange**

A commodity exchange is an exchange where various commodities and derivatives products are traded. Most commodity markets across the world trade in agricultural products and other raw materials (such as wheat, barley, sugar, maize, cotton, cocoa, coffee, milk products, oil, metals) and contracts based on them. These contracts can include spots, forwards, futures and options on futures. Other sophisticated products may include interest rates, environmental instruments, swaps, or ocean freight contracts. Commodity exchanges usually trade futures contracts on commodities such as trading contracts to receive something, for example maize, in a certain month. A farmer growing maize can sell a future contract on his or her maize, which will not be harvested for several months, and guarantee the price that he or she will be paid upon delivery; a breakfast cereal producer buys the contract now and guarantees the price will not go up when it is delivered. This protects the farmer from price drops and the buyer from price rises. Speculators also buy and sell the futures contracts to make a profit and provide liquidity to the system.

Actually, contracts opened on international commodity markets are enforceable, and a hedge against downside price risk is available by purchasing wheat delivery options rather than simple future contracts. An option contract is a commodity futures price and delivery guarantee with insurance against downside price risk included for a small additional premium<sup>19</sup>.

Futures contracts are becoming widely used risk management measures in developing countries in addition to maintaining a moderate size reserves. Developing countries now account for over one-third of the number of contracts traded. Around one half (9 out of 22) of the leading commodity exchanges are located in developing countries (India, China, Malaysia, Brazil, and South Africa).

Commodity Exchanges have been created in several developing countries including Romania, Bulgaria, Ukraine, Kazakhstan, Turkey and Uzbekistan. Efforts are underway to establish one in Kyrgyzstan. Most of these focus on organizing trade for immediate physical delivery. Future contracts are traded in Romania since 1992. The Kazakhstan Stock Exchange deals in a small number of future contracts on foreign currencies, while there are four operational commodity exchanges organized on a regional basis. The Uzbek Commodity Exchange of Uzbekistan trades

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<sup>19</sup> The Development of Commodity Exchanges, UNCTAD, June 2007, TD/B/COM.1/EM.33/2.

cotton, metals, oil products and other raw materials via auctions. While Egypt maintains wheat reserves for 4 months, the private sector is engaged in futures and options to reduce undesirable impacts of fluctuation in the international prices. The experience in Turkey is more successful where about 20 of the exchanges are engaged in active spot and, to some extent, forward trade. Currently, some of these exchanges are studying the possibility of introducing more sophisticated forms of trade, based on warehouse receipts and future contracts. The Turkish Derivatives Exchange of Izmir has been granted regulatory approval to introduce future contracts as of February 2005.

*Commodity exchanges and future options:* The following research activities could be considered:

- i. quantification of specific price risks faced by governments and private sector importers/distributors;
- ii. assessment of the technical, and economic feasibility of mitigating price risks through transfer to the market, using financial and physical contracts;
- iii. assessment of the technical assistance needs and design policy advice programme in hedging product design;
- iv. Comprehensive assessment on policies and institutional requirements for enhancing the efficiency of General Authority of Supply Commodities GASC based on market-oriented measures; and
- v. Assess government role and design appropriate policies for the options of financing premiums on option contracts to cap the cost of future food imports.

#### 4.5. Component V Institutional Reforms for Higher Income and Governance

The agricultural sector can aid growth and development by creating opportunities for investment and generating income for the rural poor. Further, the emphasis on agriculture can improve food security as well. Finally, development in agriculture can lead to improvements in environmental services when the agriculture, natural resource conservation, and environment itself are integrated.

Agriculture-for-development agendas<sup>20</sup> can provide promising results in improving the performance of the agricultural sector, but the importance of governance in supporting those agendas becomes key. Policy instruments that have aimed to provide a proper infrastructure, services, and social safety nets have often not succeeded as a result of inadequate administration and financial support. The most significant governance challenges in Egypt include limited voice and accountability, rent-seeking and corruption, poor law enforcement, an outdated regulatory and property rights administration system, excessive costs of transactions, and limited organizational and technical capacity both at the central and local level of government organizations. The outcome is such crises as the black cloud, which results from lack of enforcement of environmental laws or pollution of irrigation water canals due to effluents of factories in rural areas and on the Nile. Externalities of this kind take dramatic proportions in terms of health and the integrity of soil and crops and can only be resolved by taking a comprehensive and integrated approach towards the reforms of governance.

##### 4.5.1. Governance as the Focus

A focus on governance to improve agricultural performance would mean emphasis on democratization, civil society participation, state reforms, corruption control, and decentralization. While political pronouncements indicate a commitment to decentralization and increased support for Egypt's rural population in terms of access to services and infrastructure, serious research is needed into the area of legal and institutional reforms to promote participation of poor farmers on three fronts: voice, access to value chains, and access to extension services and financial services.

Though tough to implement on a comprehensive scale, it is imperative to select the right mix of policy instruments. Good governance must start from the state apparatus as the most important first step, following which the private sector and civil society can emerge as contributors too, thus creating a more hospitable environment for agriculture to serve the objective of empowering the poor. Starting with the regulatory environment, the need is to identify the constraints that hamper production trade and marketing in the same manner as what has been undertaken on behalf of micro and small enterprises in the non-agricultural sector.

Evidence-based policy-making is a crucial element in ensuring that policies are both targeting those who are intended whilst also holding at interest the welfare of the society as a whole. Research, monitoring, and evaluation are integral components in designing policy that will be set up to succeed. Policy-design must use a research-based and results-based approach, and the evaluation of such policies must essentially be transformed into a process of learning.<sup>21</sup> The issue of coordination of research and monitoring systems for agriculture is also an integral component of policy reform.<sup>22</sup>

##### 4.5.2. The Government's Commitment to Institutional reform in Agriculture

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<sup>20</sup> See World Bank 2008, World Development Report 2008: Agriculture and Development.

<sup>21</sup> Ibid.

<sup>22</sup> Background paper contributed by Tarek Moursi to consultants on this project.

The National Democratic Party (NDP) paper on agriculture has spelled out (November conference 2008) the need for deep reforms in legislation including the cooperative law as well as the need to upgrade the technical capacity and organization of agricultural extension systems. The government has also revised the rules governing the Principal Bank for Development and Agricultural Credit (PBDAC) and its new administration will need to redesign its operation under its revised mandate. Private large scale farmers have made important inroads into exports of high valued crops but still only account for a tiny proportion of domestic outputs.

The opportunities to make a fresh start on the interpretation of Egypt's typical small farm into high value supply chains in horticulture are now very good and can only improve in the future due to the long-run secular increase in demand for fresh fruit, vegetables, flowers and processed food. There are very promising models in developing countries (and even Egypt) for ways of integrating small farmers into supply chains both for the domestic market (supermarket route) and for export.

What is proposed is under this concept note is to work in parallel in researching the roles of different stakeholders (large and small) as well as the design of a new package of policy and regulatory reforms of the administration governing investment, property rights, operations and extension services. The purpose is to integrate the proposed reform agenda for governance of the agricultural sector with the emerging needs of high quality and high productivity of farmers.

The following section describes the case for promoting the integration of small landholders into high value chains and the final section presents a framework that identifies those areas of institutional reform that must be tackled and some proposed mechanisms such as decentralization.

The objective is to provide a better merging of the policy research framework in the broader context of the needs of all farmers in the old and new lands, producing traditional or high-valued crops.

#### **4.5.3. Marketing and Supply Chains<sup>23</sup>**

There are five factors that constrain the potential integration of the poor in supply and value chains: limited market information, ineffective regulatory environments (e.g. entry and exit rules), inadequate infrastructure, gaps in local knowledge and skills and restricted access to finance (UNDP 2008, 31).

In the Arab agricultural sector, lack of efficiency of marketing facilities, organization, storage facilities and post harvesting processing act as a significant obstacle to participation of farmers in supply chains. Marketing losses specially during post harvest processing have been estimated to be 25 percent losses of vegetables and fruits and 15 percent of cereals (AOAD, 2007 in LAS 2007). In addition, control of markets by a few traders has crowded out small producers.

The key to exploiting the potential of supply and value chains is to identify macro, meso and micro-level solutions to the key gaps in meeting market demand. Successful case studies exist that utilize viable business models and partnerships between development stakeholders to integrate the poor and low-income farmers in mainstream agro-food supply chains while maintaining profitable business operations.

Several studies on engaging small farmers in supply chains recommend the following interventions and strategies (Louw and Vermeulen 2007): Broader policy level interventions, such as promoting laws on competition, is more likely to benefit small farmers (Louw and Vermeulen 2007, 544). At the micro level, Capacity building for farmers and producers in

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<sup>23</sup> This section is based on a report prepared for the League of Arab States by Heba Handoussa and Heba Abu Schnief (2008) "Unleashing the potential for pro-poor growth in the Arab Region"

organizing and negotiating forward contracting, as well as building market linkages is strongly needed.

The use of product branding such as “Fairtrade” is a potential tool to enhance market entry prospects (ibid 2007, 545). Farmers associations and cooperatives can help build capacity of farmers to meet the required quality controls and standards, while at the same time reducing the transaction costs for contractors associated with dealing with several small suppliers (ibid 2007, 545). In the Arab region, farmers’ associations, being aligned to government, have not been able to serve the collective interests of farmers (World Bank 2008). Development programmes have an important role to play in helping small farmers improve their supply chains in order to sell to large retailers. Targeting market niches is a promising means of market entry for small-scale farmers (ibid 2007, 545). Forward contracting can also act as an important tool for price stability and mitigating risk, while integrating farmers into supply chains. Also another example is India’s successful experience with contract farming in reducing risks, promoting the production and export of high-value foods, and increasing the income and employment of small farmers (IFPRI 2005, 13).

#### **4.5.4. Agribusiness With an Export Growth Potential**

Egypt, along with a few other Arab countries, has a growing comparative advantage in the horticulture sector. This sector can significantly impact the poor through exports, employment and increased income levels. A simulation exercise carried out by McCulloch and Ota [2002], found that switching to horticulture could bring about a significant reduction in the incidence of poverty. This is regardless of whether farmers became horticultural smallholders or workers on exporter-owned or large contract farms (Jenkins 2005, 608).

Integration into global supply and value chains has different dynamics affecting its employment and income generating effect. Generally, the requirements of global supply and value chains often demand a high degree of labour flexibility, long hours of work and poor working conditions. Private quality standards and food safety regulations make it difficult for smallholders to compete in export markets (IFPRI 2005, 62).

With the growing demand for horticulture products in the Gulf Countries and the EU, Egypt can better promote the exports of non-traditional, high-value crops. Investments in demand-driven support services and systems that provide adaptive technological support need to be made, in addition, mobilization of finance to upgrade the facilities and logistics in the supply chain (World Bank 2002). Integrating a pro-poor component in the supply chain, requires that development stakeholders assist in the development of modalities that would link small-scale and medium-scale farmers through output contracting with large-scale farmers who have developed export outlets (ibid 2002).

An illustrative example of such modalities is applied by Sekem, a medium sized Egyptian company that produces and exports biodynamic agricultural products. With technical and financial assistance, the company was able to source organic produce from local small-scale farmers. The company has successfully grown, with revenue of \$19 million in 2005 and a workforce of 2,850 employees, while raising income and living standards of 850 small-scale farmers who source produce (UNDP 2008).

#### **4.5.5. Recycling Agricultural Residues as a Means of Fighting Pollution**

The issue of recycling of agriculture residues is recognized to be of special importance to increase farmers income, introduce clean agriculture practices, provide employment opportunities, reduce pollution (black cloud), reduce production cost (reduce use of chemical fertilizers, etc.), assist in



rationalizing water use, and enhancing women empowerment<sup>24</sup>. Accordingly, the issue of Recycling Agricultural Residues is identified as one of the possible proposed research areas from the perspective of protecting the environment by better coordination of law enforcement and the provision of sufficient incentives to farmers to recycle agricultural residues rather than waste them with environmental repercussions.

#### 4.5.6. The Path to Improvement

**Market failures** in the agricultural sector are quite persistent and occur mainly as a result of such things as monopoly power, externalities in natural resource management, scale economies in supply chains, non-excludability in research and development, and asymmetries of information in market transactions. Given the likelihood of such failures, it is up to the government to ensure more effective safeguards (or responses) that include proper regulation, institutional development, and investment in public goods; all the while, they must avoid such behaviours as rent-seeking and corruption.<sup>25</sup> However, this proves to be a difficult task when the lack of information and understanding of implementation remain issues; in addition, sometimes the incomplete actions cover up problems in improvement and lead to a resurfacing of those problems later. The emphasis here must be placed on investment in agricultural research and development, rural roads and property rights, facilitation and coordination, and ultimately on effective public policy that will further alleviate poverty and inequality.

**Coordination** is also an extremely important goal in the effort to promote agriculture for development. Farmers often remain isolated from the supply chain, and this has created a much bigger problem as the food supply chain has grown. The public, private, and civil society sectors must further coordinate efforts to decrease transaction costs and risks and ultimately improve the underlying infrastructure. Mechanisms and modalities for working together across ministries with respect to cross-cutting sectors, such as food safety, health and nutrition, trade and commerce, and gender equity. As these facets remain under the rule of various ministries, they will continue to lack the coordination necessary to create more integrated and successful performance in agriculture. Namely, strategies must involve all sectors of society, and policy makers must be better trained to facilitate the achievement of these broader goals. It is also important to note that at present, the institutional infrastructure that governs the agricultural sector is often weak and the legislation is mostly outdated and needs modernization.<sup>26</sup> Further, there should be flexibility within a batch of selected options such that it can be revised continuously according to conditions and priorities and in consultation with the private sector and civil society alongside the government.

More appropriate regulation becomes imperative, whereby all sectors commit to follow both large-scale regulation and also implement more specific self-regulatory practices. Internal improvements become increasingly important to aid in the reform of the public sector as a whole, as things such as adjusting recruitment processes and salary structures can pave the way for creating greater equality. As the administration and management commit to their roles, and also develop these results-based approaches, the agriculture-for-development agendas will more likely be realized; and when combined with a rural population who learns to fight for better services, these goals can make their way into a reality.

It must also definitely integrate and balance the levels of political, fiscal, and administrative decentralization, such that the levels are both appropriate and again country-specific.

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<sup>24</sup> Background paper contributed by Land and Water Research Institute, Agricultural Research Center, Ministry of Agriculture and Land Reclamation in collaboration with Zagazig University to consultants on this project.

<sup>25</sup> World Development Report 2008

<sup>26</sup> National Democratic Party (2008) "Food Security and the Future of Agricultural Development: Strategic Priorities" Paper presented at annual NDP conference

Agriculture-for-development is ultimately a combined effort between all sectors of a society, and each country is not necessarily isolated from its international counterparts. International NGOs and development agencies often play a large role, and donor funding must be coordinated properly to provide the necessary financing for these greater agendas.

#### **4.5.7. Overall Objectives:**

The proposed objectives of this research programme include the following:

- 1) Introducing legal and administrative reforms to reduce transaction costs and eliminate corruption
- 2) Promoting collective action of farmers
- 3) Building the capacity of officials at the central and local levels to better serve the farming community
- 4) Protection of the environment

#### **→ *Protecting the Environment and Reducing or Eliminating Health Risks***

##### **4.5.8.Objectives:**

- Integrate certain crucial elements such as protecting the environment and reducing or eliminating health risks as cross-cutting issues and ensure that adequate attention is given to them.
- Provide an operational recipe to overcome the negative externalities of agricultural residues such as air pollution (black cloud)

##### **4.5.9.Questions:**

- What are the impacts of the current inefficient utilization (management) of agricultural residues on health, cost of production, farmers' income and rural employment opportunities?
- How can regulatory measures be combined with targeted incentives to farmers and special subsidies and taxes be imposed so as to discontinue current farmer (and industrial) practices that harm the environment?
- How can agricultural residues be transformed into valued intermediates via recycling processes that are economically efficient and environmentally friendly?

#### **→ *Capacity Building***

##### **4.5.10. Objectives:**

- Strengthen market-oriented business advisory services for farmers and better linking producers to input and product markets
- Build network that links small with large producer for wholesale domestic market and exports
- Create a body of well-trained and properly motivated extension service providers with continuous access to information on best farming practices and technologies for different crops including horticulture and other non-traditional farm products

##### **4.5.11. Questions:**

- What have been and continue to be the constraints on the delivery of valued and up-to-date agricultural extension services?
- How can the system of communication and coordination between the R&D sector and the extension services be leveraged?
- Are there opportunities for attracting human resources out of the civil service at the central (MALR) level to extension services at the local level? What type of training and incentives package can be proposed?

*(Value Chain Analysis)*

- How can competition be enhanced pertaining to the various links along the supply chain for traditional and high value crops?
- What measures can be adopted at the levels of local government, local NGOs and the larger private operators in order to help farmers move along the value chain and take advantage of opportunities?

## 5. Risk Analysis/Mitigation

Critical risks relate to the implementation of the research programme and the specific country environment in Egypt is considered in the design in the research programme. The following section provides an overview of these risks with special attention to the programme's approach to mitigate these risks through proper design, implementation and monitoring and evaluation measures.

<b>Risk</b>	<b>Rating</b>	<b>Mitigation Measures</b>
Declining national political commitment to address the food crisis thus reducing coverage of vulnerable groups due to relative decline in international food prices and the meltdown of international financial market	S	Continued efforts and dialogue to enhance national commitment and considering the implications of global financial markets crises as element in the analysis and projects design, as appropriate.
Call for proposals and financing from IDRC is not timely available, leading to project delays	S	Rapid call for proposals through an open competitive process and rapid approval and disbursement procedures
Implementation of approved programme and projects may be delayed due to limited number and/or poorly trained staff in social sectors and agriculture.	S	Capacity building is an integral part of programme design and considered in implementation.
Low capacity at local levels to collect data and information on vulnerability, food security, poverty and nutritional aspects	M	Capacity building to be identified and funded as part of project safeguard and other management plans in addition of Involving local government authorities and NGOs in project implementation
Size, complexity and variety of recommended measures and projects may contribute to misunderstandings between and amongst responsible line ministries about management and implementation issues	M	Research programme management and implementation arrangements have been carefully thought through and conceived to mitigate against this risk. Nevertheless, the Steering Committee (or IDRC management) needs to be vigilant during execution to forestall potential problems
Limited and inadequate link between researchers and decision making institutes may lead to waste scarce time and financial resources	S	Implementation mechanisms explicitly address the link between the researchers and the required centralized decision making with the needed communication strategies include implementing actors as targets and capacity building
Coordination among donors is weak, resulting in overlapping activities, delays or in the case of collaborative arrangements, cancellation of project components.	M	Coordination meetings is planned to be held upstream with bilateral and other donor organizations
Inadequate project design causes further neglect to environmental services, such as water supply, or ignores and poses further health or safety risks to communities.	S	Where appropriate, environmental impacts studies will be conducted in all projects design

Overall Programme risks	S	
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## 6. Selected References and Readings

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## Annex I      On-going and Planned Activities for Selected Major Partners in Development on Impacts of Soaring International Food Prices in Egypt

The following annex reviews the actions taken and the plans for relevant International Agencies and other Partners in Development working in Egypt for dealing with the Food Soaring Prices. The global support provided by bilateral aid agencies is also reviewed. The review includes Government (MOA); Civil Society; the World Bank and the UN Partners in Development such as FAO, WFP, IFPRI, WHO and UNICIF. The EU did not include Egypt as one of the countries covered by its initiative to deal with the impact of soaring prices. In addition, several national agencies and experts were consulted to appreciate the ongoing support to the Government by these selected agencies. The agencies consulted include: Ministry of Agriculture and Land Reclamation -MOALR; Agricultural Development Council; Agricultural Research Center; Agricultural Economics Research Institute; Council of Arab Economic Unity; Ministry of Irrigation and Public Work; and General Authority for Supply Commodities. Also, several focus thematic discussion groups were held with experts for consultation on the subject.

This review on the ongoing and planned support facilitated the identification of gaps and possible partnership for the IDRC. The suggested IDRC initiative needs to be in support of the coordination effort led by UN and other bilateral agencies. IDRC Partnership with other Agencies is indispensable in dealing with such a large and multi-faceted crisis in Egypt.

### 1. Global Support by the Bilateral Aid Agencies:

Bilateral donors are actively responding to the food price crises both through their support to multilateral organizations and directly in their own programmes. To mention only a sample of these agencies, Department for International Development (DFID) is seeking to galvanize a coordinated and comprehensive international response and the UK government has announced a \$910 million aid package, including support to WFP. United States Agency for International Development (USAID) is channelling additional US government funding of \$200 million and re-programming \$40 million of its existing budget to emergency food aid. President Bush has also called on Congress to approve an additional \$770 million to support food aid and agricultural development programmes in fiscal year 2009. The Canadian International Development Agency (CIDA) has just announced the complete monetization of its food aid contribution and additional CAD 50 million in emergency food aid funding. The Government of Japan has announced that it will provide an additional \$100 million in food aid within the next three months as an emergency measure to respond to the food crisis. About \$50 million of the aid will be provided mainly to countries in Africa in May through the WFP under its emergency appeal. This is in addition to \$68 million already contributed in 2008 to WFP. Prime Minister Fukuda has indicated his intention to raise the food crisis issue at the G8 summit to be hosted in Japan this summer.

The World Bank has initiated a Framework Document For Proposed Loans, Credits, and Grants in the Amount of US\$ 1.2 Billion equivalent for “A Global Food Crisis Response Programme - GFRP”. The UN Secretariat with support from the WB and donors community has actively promoted increased funding to WFP as the main priority in providing a fast response to the suffering occasioned by the crisis. The GFRP then provides a framework for the World Bank to coordinate its own response to the crisis in partnership with other multi-lateral organizations and donor agencies. The GFRP specifically contributes technical support to the evolving coordination role of the “United Nations Task Force on the Global Food Crisis” established recently in Berne. A senior World Bank staff member has been out posted to New York to work with the Task Force

secretariat for May and June 2008 while coordination arrangements are being set up. Bank senior management has also instructed the management of Bank country offices to coordinate in-country actions with UN resident coordinators, as agreed at the Board of Chief Executives (CEB) meeting in Berne in April presided over by the UN Secretary General. Key coordination of activities will occur at the country level, beginning with “joint needs assessment missions”. The mission for Egypt starts by mid-November 2008. There are a large number of organizations that can help in this crisis, with only a sampling of some main actors below.

The [Global Food Response Programme \(GFRP\)](#) as a new \$1.2 billion rapid financing facility was created by the WB in May 2008 to speed assistance to the neediest countries. GFRP has approved and begun disbursing \$200 million in 21 countries as of October 24, 2008. Three projects totalling \$159 million are pending approval. An additional \$536 million is being earmarked for programmes in 10 countries.

GFRP is disbursing funds to [Afghanistan](#) (\$8 million), Burundi (\$10 million), [Central African Republic](#) (\$7 million), [Djibouti](#) (\$5 million), Guinea (\$10 million), Guinea-Bissau (\$5 million) [Haiti](#) (\$10 million), [Honduras](#) (\$10 million), [Kyrgyz](#) (\$10 million), [Liberia](#) (\$10 million), [Madagascar](#) (\$10 million), [Moldova](#) (\$7 million), [Nepal](#) (\$36 million), [Niger](#) (\$7 million), Rwanda (\$10 million), [Sierra Leone](#) (\$7 million), [Somalia](#) (\$7 million), Southern Sudan (\$5 million), [Tajikistan](#) (\$9 million), Togo (\$7 million) and Yemen (\$10 million).

The major components of the GFRP are: (i) food price policy and market stabilization, (ii) social protection actions to ensure food access and minimize the nutritional impact of the crisis on the poor and vulnerable, (iii) enhancing domestic food production and marketing response, and (iv) implementation support, communications and monitoring and evaluation.

## 2. International Organizations working in Egypt:

A series of UN interagency interventions are in process to support the GOE to respond to rising food prices in Egypt, with the main targeted actions being Early Warning Systems and Planning and Management. Short-term activities until 2009 include: reactivating the food security and nutrition task force in order to manage the UN response and support national efforts to respond to the soaring food prices; as well as holding a series of brainstorming sessions and meetings to discuss the issues and potential responses. The break-down of specific UN agency interventions is detailed in the following sections.

### **6.1.1. Food and Agriculture Organization of the United Nations (FAO):**

*At the global level*, FAO has held a High-Level Conference on Food Security in Rome on 3 to 5 June 2008. Other high-level meetings where rising food prices was high on the agenda include the Tokyo International Conference on African Development (TICAD IV) in Tokyo in May, the G8 Summit in Hokkaido in July, and the September High-Level Event of the General Assembly on MDGs.

At the country level, UN Resident and Humanitarian Coordinators and Heads of World Bank country missions are mandated to work together with national governments to convene UN agency teams, World Bank country office teams, other donors and humanitarian agencies in affected countries. The goal is to work together to draw up country support strategies for

vulnerable populations, address food price rises more generally, identify gaps, avoid duplication, create synergies, and seek international support for implementation.

The Food and Agricultural Organization (FAO) of the United Nations offers technical and policy assistance to the most affected countries in an effort to increase food supplies and prevent crises in the upcoming agricultural seasons. The Initiative on Soaring Food Prices (ISFP) was launched by the Director-General on 17 December 2007. ISFP will:

- Apply a twin track approach emphasizing both short and long term solutions;
- Emphasize country specific interventions;
- Play a catalytic role;
- Build a strong partnership with Rome-based agencies and International Financial Institutions (IFIs) to address the high food price crisis;
- Integrate short-term measures to address the high food prices crisis into longer-term national policies and strategies for food security.

In Egypt, FAO is carrying out the following relevant activities:

- Working with Ministry of Agriculture and Land Reclamation (MALR) to establish a National Task Force on soaring food prices. The focal points have been appointed. (Dr. Saad Nassar, Advisor to the Minister, May 2008)
- Assisted MALR in preparing a study on the implications of soaring food prices on Egypt and short and medium-term measures (June 2008) to address the problem.
- Informal consultations with WFP, IFAD, and WB for possible collaboration.
- FAO has informed MALR that funds are available under the Technical Cooperation Programme for assessment missions and other related activities, which could be utilized upon MALR's request. (April 2008)
  
- In collaboration with MALR, conducted a regional workshop from 2-4 June, which Egypt participated in, on soaring food prices and its implications on agriculture and food policies in the near future. (2-4 June 2008).
- Ongoing support to the updating of the agricultural strategy and the preparation of a plan of action for agricultural development, including technical support to incorporate the issue of soaring food prices in medium and long-term government plans (ongoing Technical Cooperation Programme: 2008 through mid-2009)
- Participated in the World Bank dissemination conference on the World Development Report (2008) held jointly with the Agricultural Research Center/MALR, which included a special session on the impact of food prices on Egypt (1 June 2008).

For 2009-2012, FAO is planning to continue providing technical support to establish a pilot food insecurity and vulnerability information and mapping system (FIVIMS) within the Food Security Information Center (FSIC), Ministry of Agriculture and Land Reclamation. In addition, FAO is planning to continue support to the updating of the agricultural strategy and the preparation of a plan of action for agricultural development, including technical support to incorporate the issue of soaring food prices in medium and long-term government plans (ongoing Technical Cooperation Programme: 2008 through mid-2009) with an envisaged support to its implementation and monitoring and evaluation for the strategy.

#### **6.1.2. The World Food Programme (WFP)**

The WFP is the UN Agency whose mandate most directly addresses the food price crisis. WFP purchases food from third parties using donor funds and accepts food donations in kind for redistribution through a variety of mostly targeted programmes. WFP has identified a shortfall in funding of \$755 million due to rising food prices, and has received adequate pledges to cover these resources. The WFP has outlined a three-pronged approach to respond to the evolving crisis which includes:

- Immediate steps to meet urgent needs, prevent a nutritional crisis and stabilize the situation;
- Medium-term measures to boost agricultural production;
- Long term efforts to build a policy environment conducive to pro-poor growth.

The WFP is carrying out the following related activities in Egypt:

- Food for Education; Supporting Equitable Access and Quality Learning :-
  - Girls Education(GEI) and Community Schools: timely provision of food in sufficient quantities to schools under the Girls' Education Initiative programme in Fayoum, Sohag, Menia and Assuit, using cost-effective resource utilization methods and quality-controlled food distribution and storage.
  - Preschool Children: Early Childhood Education Enhancement Project, 150 days (ECEEP): timely provision of food in sufficient quantities to pre-school children in Fayoum, Beni Suef and Menia\*\* under the ECEEP, using cost-effective resource utilization methods and quality-controlled food distribution and storage.
  - Children-at-Risk: effective educational programmes and other services provided to children at risk of, or engaged in exploitative child labour, with the support of governmental and non-governmental institutions. This is implemented using cost-effective resource utilization and quality-controlled food distribution mechanisms.
  - US Department of Labor: timely provision of food in sufficient quantities to children-at-risk attending NGO classes, using cost-effective resource utilization methods and quality-controlled food distribution and storage.
- Conducted a vulnerability study, which identifies groups most worthy of government support.

WFP is planning for the following activities during the period 2009-2012:

- Food for Assets: Protect livelihoods in crisis situations and enhance resilience to shocks:
  - Increase human and physical assets in WFP-supported settlements and other communities in Upper Egypt.
  - Increase human and physical assets in WFP-supported settlements and other communities in Sinai and Red Sea.
- Continue to provide in-school meals and take-home rations for school children in five governorates, in addition to children engaged in the worst forms of child labour, to encourage them to enrol in school. Also provide in-kind food assistance in a timely manner to the families of those children as an income transfer.
- Flour Fortification: reduce levels of micronutrient deficiencies especially iron and folic acid, through food fortification.

- Produce and distribute fortified wheat flour to ten governorates.
- Safety and quality of fortified wheat flour ensured at the production and retail levels.
- Social marketing campaign planned to improve dietary behaviour related to micronutrient deficiency.

For the longer term beyond 2011, the WFP is planning for:

- Capacity Building; Strengthen GoE capacity to reform safety-net programmes, launch national nutrition strategies, prepare and respond to emergencies, through updated food security and vulnerability information and training:
  - Provide technical support to the Ministry of Social Solidarity to enhance the Food Subsidy Programme.
  - Provide technical support to the Food Security Analysis & Monitoring Unit (FSAMU) within the Ministry of Economic Development.
  - Provide technical support to the National Nutrition Institute in the Ministry of Health.
  - Provide technical support to the Ministry of Education
- Support the Government to reform the food subsidy programme to make it more economically efficient, to better target the neediest segments of the population and to enhance the nutritional value of subsidized commodities through food fortification.

#### **6.1.3.The World Health Organization (WHO):**

Globally, WHO and UNICIF have been collaborating to respond to the food price crisis, primarily through health ministries. They are concentrating on promoting and delivering immunizations and vitamin A supplements. WHO has stepped up its support in Djibouti, Eritrea, Ethiopia, Kenya and Somalia, where severe drought increases the risk of starvation and disease. Food distribution has begun in most of the affected areas as part of a larger package. WHO's initial estimated financial requirement in this region is a total of US\$12.3 million, which would support health coverage of people at risk over the next nine months. WHO has already received an initial \$1.5 million from the recently revised United Nations Central Emergency Response Fund (CERF) to boost its health work in the short-term. The remaining \$10.8 million is being requested through the UN Consolidated Appeal (CAP) for the Horn of Africa that was launched in early April 2008. In the Americas, PAHO/WHO and UNICEF have agreed to launch a new initiative to address the needs of communities with the highest level of maternal and infant mortality and chronic malnutrition, including border areas and the poorest villages.

In Egypt, WHO is carrying out the following relevant studies:

- Assessment of national micronutrient deficiencies and control programmes
- Developing a national strategy and plan of action on food safety.
- Increased public awareness on food safety through:
  1. Developing: a communication plan and strategy; information, educational and communication materials; and activities.
  2. Developing healthy markets in areas under the Basic Development Needs Programme.
  3. Developing guidelines on healthy Egyptian diet.

#### **6.1.4.United Nations Children's Fund (UNICEF)**

UNICIF is carrying out the following studies:

Collaborate with WFP in helping the Government of Egypt to update the 2005 mapping and vulnerability assessment in order to implement a targeted subsidy programme.

In 2009, UNICIF is planning to collaborate with other UN agencies to support Ministry of Social Solidarity to develop a paper on the impact of food prices, and approaches to strengthening early-warning and food-crisis management systems (especially on vulnerable children and women).

In the longer term beyond 2011, UNICIF is planning for advocacy activities to support Egypt's public policies for food security especially targeting the most vulnerable disparity areas and age groups.

#### **6.1.5.The International Fund for Agricultural Development (IFAD)**

IFAD is the only financial institution of the UN system dealing with food issues and it is collaborating with WFP and FAO on reprogramming loans for immediate response to the food price crisis. IFAD has identified 45 loans related to agricultural production in 26 affected countries with undisbursed funds totalling nearly \$800 million that might be suitable for reprogramming. It is considering requests for reallocation of some \$200-300 million of these funds to boost food production by providing essential inputs to poor farmers in the next 12 months. Haiti is likely to be the first case, with a reallocation of \$15 million for purchase of fertilizer and seeds.

In Egypt, and based on a request from the Government, IFAD has agreed to start a new project in the areas under the On-Farm Water Development Programme. IFAD contribution is expected to reach \$ 35 million USD. The project will help save scarce water resources and enhance agricultural productivity. The project is currently under preparation.

#### **6.1.6.United Nations Industrial Development Organization (UNIDO)**

UNIDO is initiating projects on reducing post harvest losses in marginalized areas (up to 70% in Upper Egypt), with support to improving logistics and cold chains, as well as small-scale industrial infrastructures (e.g. efficient satellite pack houses).

#### **6.1.7.United Nations Population Fund (UNFPA)**

UNFPA is carrying out a study on the implications of the rising food prices on maternal health and gender based violence. Steps are being initiated to conduct a rapid assessment of the short term effects of rising food prices on health care and health expenditure particularly in the area of maternal health, as well as consequent impact on gender based violence among vulnerable population.

#### **6.1.8.United Nations Development Programme (UNDP)**

UNDP is carrying out the following activities:

1. The Municipal Initiative for Strategic Recovery project (MISR) provides micro credit for poultry raising to almost 6000 beneficiaries in Fayoum.
2. Social Fund for Development through its Small Enterprise Development Organization programme provides loans to modernize poultry raising and credit to agribusinesses.



During the period 2009-2012, UNDP will support the following initiatives:

1. Providing support to the Ministry of Social Solidarity in improving targeting methodology and database through the capacity building project.
2. Providing policy advice through the social policies committee towards an integrated social policy.

In conclusion, the international development agencies working in Egypt are carrying out several relevant activities to support the Government to deal with the food crises. FAO is providing special support to establishing pilot food security and capacity building for food insecurity and vulnerability information and mapping system within the Food Security Information Center of the MOA, while WFP is providing support to the Food Security Analysis and Monitoring Unit within the Ministry of Economic Development. The specific nutritional deficiencies are dealt with through support from WHO and WFP through providing support to flour fortification and micronutrient deficiencies. The issues of school feeding, preschool children feeding and children-at-risk are of concern to WFP. The Ministry of Social Solidarity is receiving support from WFP to enhance food subsidy programme, and from UNDP on targeting methodology. IFAD and WB are stressing on water development projects and strategic planning, while UNIDO is providing support to reduce post harvest losses.

#### **6.1.9.NGOs working in Egypt**

##### **6.1.9.1. CARE Egypt**

CARE is aware of the importance of the impact on the rise in food prices on development and poverty in Egypt. While there are no projects implemented by CARE which are specifically designed to address the food crisis they are very interested in exploring options, research and activities. CARE has requested Save the Children to keep them informed on developments and involve them with future coordination meetings.

##### **6.1.9.2. Plan International**

Like CARE, Plan is not currently implementing projects in response to the food crisis. Similarly they have expressed interest in being involved with further coordination meetings and information sharing.

##### **6.1.9.3. Save the Children US in Egypt**

Save the children is leading the NGO initiative in response to the food crisis. They commissioned an impact review on the current situation. In addition they have funding for further activities. Save the Children has expressed interest in collaborating on future research with a view to adjusting their programme in response to the crisis.

##### **6.1.9.4. Catholic Relief Service**

Catholic Relief Centre (CRS) has expressed interest in collaborating with Save the Children on future research and coordination activities. Whilst CRS is not currently working on the issue it has prioritised it for future initiatives.

### 3. Local Organisations

The following government ministries and national research organisations were contacted for the scoping study. Some of the listed organisations were represented at focus group discussions and others were visited by the research team. Detailed minutes of the meetings are available where a more comprehensive description of competencies and areas of expertise are discussed and key personnel are identified.

- **Ministry of Agriculture and Land Reclamation (MALR)**  
Support for future research lead by IDRC was voiced by the Minister of Agriculture and Land reclamation. It was agreed during the meeting that any research conducted in conjunction with the ministry should involve capacity building, and the ministry should be involved in identifying particular data gaps it needs filled to enable informed policy decisions.
- **Food Security Information Centre (department within the MALR)**  
The FSIC reports to the minister of MALR and collates information and data already available in the country which is relevant to food security. This is a key body which should be incorporated in any future research. Some of the proposed research concepts have incorporated this organisation into their framework.
- **Ministry Of Social Solidarity (MoSS)**  
The Ministry of Social Solidarity is responsible for the implementation of food subsidies in Egypt. Key discussions with the top ministry officials were very informative, however if research is conducted on issues related to subsidies then further meetings and agreements are needed with the ministry to ensure their complete buy-in.
- **Centre for Sociological and Criminological Research (CSCR)**  
CSCR is Egypt's foremost national research centre in all areas of the social sciences except economics and politics. It reports to the minister of MoSS and has been entrusted with survey and research for the Conditional Cash Transfer programmes in two Egyptian governorates—Assiut and Sharkia.
- **Cairo University (department of statistics special focus on poverty)**  
This department has conducted much work on poverty analysis and mapping. At the very least the sharing of information with the department is highly recommended. However it is suggested that a partnership could well be formed which goes beyond the sharing of information.
- **Egyptian Centre for Economic Studies**  
ECES was established in 1992 as a non-profit, non-governmental organization with the objective of promoting economic development in Egypt by conducting disseminating applied policy research in light of international experience. Much of the work done by ECES addresses macroeconomic issues, In 2007, their two principle large-scale research activities both had some relevance to the food crises.

One of the research areas, “Employment, Productivity and Poverty in Egypt” served to highlight the lack of research in this area. Its relevance to the food crises was the research on the constraints that face the agricultural sector and how that limits the ability to raise employment, increase productivity and reduce poverty.

Their second main research activity area under the title, “What Drives Prices in Egypt?” was relevant to the food crises in terms of identifying the factors driving prices in Egypt and their relative importance in an attempt to find a satisfactory balance between the growth performance and the price level.

- **National Planning Institute**

It may prove useful to further investigate NPI’s experience in competitiveness and value chain analysis. Researchers from the institute clearly have experience in this area, and could well be a good partner in future research projects.

- **Zagazig University department of Agricultural Economics**

As a regional university the University of Zagazig has good experience in research in agricultural economics. The department of Agricultural Economics could well provide support in research in this area, as well as benefit from capacity building through implemented projects. This may be particularly valuable if supplemented with research on the social aspects of poverty reductions, given that Sharkiya governorate (capital Zagazig) is one of the two pilot governorates in surveying the potential modes of delivering on the Conditional Cash Transfer programme to be formulated for Egypt.

- **Information Decision and Support Centre to the Cabinet (IDSC)**

The IDSC is a high level body which informs policy at the cabinet level. Collaboration and cooperation with IDSC is highly recommended not least for policy/advocacy purposes as well as for information sharing. It’s strengths are threefold: 1) It is not an executive body and can therefore act as a neutral coordinator across ministries and public and private entities; 2) it is responsible for providing information that is accurate and timely on a continuous basis such as monthly monitoring the price of key consumer products; 3) it has a special interest in promoting civil society participation and dialogue, with a well established polling centre and the Social Contract Center.

The IDSC has conducted key research in many areas closely related to the topic under discussion. In 2008 it has been investigating the entire wheat production and distribution system with detailed surveys and analysis including wheat yields and trading margins across governorates. Researchers working on IDSC’s Agriculture Research Agenda are among Egypt’s most highly recognized.

- **Research in the Field of Environment**

In the area of environment it is suggested that cooperation is considered with the following organisations all of whom have conducted pertinent research:

1. **Soil, Water and Environmental Research Institute, A.R.C.**
2. **Ministry of Irrigation and Public Works**
3. **Institute of Soils, water and Environment**
4. **Ministry of Environment**

Annex II Table of the Five Programme Components with Objectives, Outputs and Methodology

<b>Component I</b>		
Towards an integrated food security monitoring system; including the regular monitoring of the real effects of food insecurity at the household level		
<b>Objectives</b>	<b>Outputs</b>	<b>Methodology</b>
<p>1. The establishment of a continuous process of data collection and analysis of food security in Egypt.</p> <p>2. Monitoring the impact of changing food consumption patterns on nutrition.</p> <p>3. Building the capacity of the Food Security Information Centre (Ministry of Agriculture and Land Reform) in the areas of data collection and analysis.</p> <p>4. Building the capacity of non-governmental organisations for data collection analysis.</p> <p>5. The sharing of data and information between the government, the UN and nongovernmental</p>	<p>1. Support to regular, accurate assessment of the state of food security and food consumption, and coping mechanisms of Egyptian households.</p> <p>2. A clear picture on how changing consumption patterns at the household level affect nutrition.</p> <p>3. A strengthened and more effective FSIC.</p> <p>4. Increased capacity of NGOs.</p> <p>5. With information reaching ministerial levels, as well as UN and nongovernmental organisations policies and programmes are informed and directed at supporting the food insecure and vulnerable.</p> <p>6. Coordinated information</p>	<p><b>Coordination and establishment of a partnership</b> A formal partnership would be established between selected NGOs UN agencies and the FSIC. It is suggested that because of the number of interested NGOs (both national and international) that they would be represented by one or two selected NGOs who would act as representatives of a consortium of NGOs. The partners would present their relative strengths and needs to take the action research forward. The roles and responsibilities of each of the partners will be identified and formalised in the partnership agreement. Discussions undertaken during the formulation of this proposal with the FSIC, FAO, WFP, CARE and Save the Children, all indicate that they are initially willing to dedicate time and resources towards this proposal.</p> <p><b>Research design</b> The partners would form a coordination committee which may include technical subgroups. The goal of the committee and subgroups would be to agree on research questions and methodology. In addition to the overall goals identified in this research concept note more specific goals and objectives will be identified by the partnership.</p> <p>As stated in this concept note much information is already available, and through this research project assistance will be lent to FSIC in collecting and analysing this data. However up-to-date information on food consumption and household coping mechanisms will also be collected from the field. The partnership has the capacity to both collect available data and implement a field survey. The partners have the existing field workers and will receive support through the project to</p>

<p>organisations.</p> <p>6. Enabling both policy makers at the government level and NGOs to make informed decisions on policies or programmes targeted at the food insecure and vulnerable.</p> <p>7. Focusing attention of policy makers and civil society on the importance of food security and pro-poor analysis.</p>	<p>sharing between stakeholders.</p> <p>7. A greater focus by all stakeholders on the importance of the issues relating to food security and vulnerability in Egypt.</p>	<p>enable these field workers to regularly collect field data.</p> <p>Regular data collection can be laborious and expensive. To address both of these issues, and enhance sustainability the concept note proposes using existing field workers both from NGOs and from MALR to carry out the data collection. In addition it is recommended that the survey forms are kept as simple and short as possible to reduce error margins and enhance efficiency.</p> <p><b>Training and capacity building</b>  FSIC and MALR staff and NGO staff would receive intensive training in data collection techniques. This training would be divided into phases, in which data collectors are given an initial phase of training and then on-the-job training and refresher training as data starts to be collected.</p> <p><b>Data collection and analysis</b>  A continuous cyclical process of data collection will be established where by data can be collected on the regular basis and analysed. This could be quarterly or semi-annual. The main analysis would be housed in FSIC however other consortium members should have access to raw data which could then be analysed separately for their own implementation purposes.</p> <p><b>Analysis dissemination and policy / programme adjustment</b>  Once the first set of data is collected both from the field and from existing sources and then analysed, the information dissemination system between the partners (and to any other identified stakeholders) would be tested and adjusted to provide maxim efficiency. It is anticipated that the information will allow the partners and stakeholders to adjust their programmes and policies in an adequately informed manner.</p>
<b>Component II</b>		
Competitiveness and Policy Options for Agricultural Development in Egypt		
<b>Objectives</b>	<b>Outputs</b>	<b>Methodology</b>

<p>1. To support the decision makers (MALR and MoSS) in mid-term planning and policy analysis/formulation for agricultural development in Egypt under the prevailing internal development and international environment.</p> <p>2. To avoid undesirable subsequent crises by facilitating adequate supply and marketing responses in addressing the longer-term challenges.</p> <p>3. To support these Institutes in formulating Policy Options/ and Priorities at the sector level based on detailed comparative advantages and competitiveness indicators taking into consideration environmental, institutional, agronomic, economic and trade constraints and potential.</p> <p>4. To ensure the provision of adequate food supplies through cropping pattern and domestic market management or trade, or by stimulating a short-run supply response from the domestic agricultural sector under water and other constraints.</p> <p>5. To provide options on how best to streamline and target the direct support to producers, especially to the most vulnerable population groups, to assist them in maintaining adequate and stable supply and marketing responses.</p>	<p>1. Detailed research report(s) assessing the comparative advantage and competitiveness of major crops and livestock systems under different farming models in different agro-ecological zones. The report(s) will also include the commodity chain analysis for the selected vegetal and livestock commodities.</p> <p>2. Approximately 40 trained national staff in the assessment of supply response, comparative advantage analysis and competitiveness.</p> <p>3. An updated farm data handbook including basic analysis to be updated regularly by MALR as part of their annual plan.</p> <p>4. A national policy workshop to discuss preliminary results and to be attended by the research team as well as representatives from concerned national and international agencies/partners in development in Egypt.</p>	<p>The methodology consists of a policy analysis matrix to establish comparative advantage in the agriculture sector under several policy scenarios and options, including:</p> <ul style="list-style-type: none"> <li>· Identify ecological zones and select key commodities</li> <li>· Prepare crop budgets based on secondary data or field survey</li> <li>· Prepare import export parity prices for traded commodities</li> <li>· Establish opportunity cost for domestic factors</li> <li>· Prepare economic budgets</li> <li>· Prepare policy matrix based on private and economic budgets</li> <li>· Undertake simulation exercise (sensitivity analysis) in close collaboration with MOA</li> <li>· Discuss preliminary results through an informal workshop and finalize the results</li> </ul>
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<b>Component III</b>		
Impacts on Internal Market and its Re-governance		
<b>Objectives</b>	<b>Outputs</b>	<b>Methodology</b>
<p>1. To provide recommendations and concrete multidisciplinary measures to increase the competitiveness of the agricultural sector in Egypt with targeting policy directives to the poor segment and smallholders</p>	<p>1. Detailed research report(s) assessing the internal market implications including the commodity chain analysis for the selected crops and livestock commodities. In particular, the research report will focus on the following indicators/issues:</p> <ul style="list-style-type: none"> <li>· Price formation throughout the chain and the value added amongst the different agents for the consolidated chain</li> <li>· Assessment of marketing bottlenecks in each commodity chain</li> <li>· Assessment and reaching policy oriented recommendations regarding marketing and trade potential</li> </ul> <p>2. Approximately 20 trained national staff in the assessment of value chain analysis and internal markets analysis.</p> <p>3. A national policy workshop to discuss preliminary results and to be attended by the research team as well as representatives from concerned national and international agencies/partners in development in Egypt.</p>	<p>The methodology consists of a commodity chain analysis for the entire selected commodity system structure and functioning, including the quantification of the commodity flows from primary production to final consumption or export.</p>
<b>Component IV</b>		

Agricultural Risk Management		
Objectives	Outputs	Methodology
<p>1. Provide options to governments and major private sector entities to identify how market-based risk management measures can be incorporated in national policies and commercial strategies.</p>	<p>1. Insurance – Takaful – Scheme Commodity</p> <p>2. Exchange and Future Markets Options</p>	<p>The methodology consists of a stochastic econometric modeling for market-related (e.g. price variations) and non-market-related (e.g. unfavorable weather, pests, and diseases) fluctuations and quantification of possible risks schemes and alternatives.</p> <p>Secondly, financial and economic analysis of impacts of future contracts for spots, forwards, futures and options on futures in addition to other sophisticated products such as interest rates, environmental instruments, swaps, or ocean freight contracts.</p>
Component V		
Institutional Reforms for Higher Income and Governance		
Objectives	Outputs	Methodology
<p><b>Overall objectives</b></p> <p>1. To Introduce legal and administrative reforms to reduce transaction costs and eliminate corruption.</p> <p>2. To promote collective action of farmers.</p> <p>3. To build the capacity of officials at the central and local levels to better serve the farming community.</p> <p>4. Protection of the environment.</p>	<p>1. Measures that can promote civil society participation and reduce corruption.</p> <p>2. Regulatory reforms that remove constraints on production, trade and marketing.</p> <p>3. Design for the restructuring, new mandate, rules and incentives for the Principal Bank of Agricultural Credit (PBDAC).</p> <p>4. Design for the restructuring, new mandate, rules and incentives for Agricultural</p>	<ul style="list-style-type: none"> <li>· Investigate the existing rules and their impact on the operation of small farmers at the macro, meso and micro levels.</li> <li>· Evaluate comparative situation in best practice countries and applicability to the Egypt context.</li> <li>· Legal analysis of legislation in Egypt as compared with other countries on anti-monopoly practices.</li> <li>· Analyse recruitment processes and salary</li> </ul>



<p><b>Sub-objectives</b></p> <p>5. To integrate certain crucial elements such as protecting the environment and reducing or eliminating health risks as cross-cutting issues and ensure that adequate attention is given to them.</p> <p>6. To provide an operational recipe to overcome the negative externalities of agricultural residues such as air pollution (black cloud).</p> <p>7. To strengthen market-oriented business advisory services for famers and better linking producers to input and product markets.</p> <p>8. To build a network that links small with large producer for wholesale domestic market and exports.</p> <p>9. To create a body of well-trained and properly motivated extension service providers with continuous access to information on best farming practices and technologies for different crops including horticulture and other non-traditional farm products</p>	<p>Cooperatives.</p> <p>5. Design for the restructuring, new mandate, rules and incentives for Agricultural Extension Services.</p> <p>6. Reforms in legislation including the cooperative law</p> <p>7. Upgrading of technical capacity</p> <p>8. Reduce marketing losses</p>	<p>structures and explore measures and structures that can pave the way for better incentives and greater equality.</p>
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## Annex III Focus Group Minutes

### Focus Group 1: Food Poverty, Nutrition, and Targeting the Poor

#### Participants

##### Expert Panel

	<u>Position, Affiliation and Area of Expertise</u>
Habiba Wassef	Independent expert, former WHO consultant specializing in nutrition and the public sector
Heba El-Laithy	Professor of Statistics at Cairo University, specializing in poverty measurement
Hania Sholkamy	Anthropologist, Research Faculty at Social Research Center
Emad Adly	Environmentalist, working on Nile Basin Initiative

##### IDRC Team

Adam Awny-Taylor	Independent expert IDRC, social protection
Dyaa Abdou	Independent expert IDRC, agricultural economist
Heba Handoussa	Independent expert IDRC, industrial economist
Susan Joekes	Senior programme specialist, IDRC
Valerie Kirk	Research Assistant

#### Objectives of the meeting

- To understand poverty lines vis-a-vis food poverty and calorie intake as presented by Heba El-Laithy. This includes the characteristics or variables used to potentially move from the poverty line to the food poverty line.
- To hear the expert opinion of Habiba Wassef in terms of a health perspective, including nutrition and mother and child welfare.

#### Comments made by Heba El-Laithy

General question posed

- What is the current status on the study of the food poverty line, keeping in mind the work of IFPRI on people's diets at the regional level?

##### **The Poverty Line Defined**

Poverty is very multi-dimensional, particularly in terms of food poverty whereby every dimension affects another. Measuring poverty is done by the money metric approach whereby household expenditure is used as a reference, which uses differentials to disaggregate the poor and the non-poor. The poverty line is measured by the basic needs that any person needs in order to be well off and well nourished, but also includes (e.g.) housing and education. The requirements for a good diet depend on variables, e.g., age, gender and level of activity. The food poverty line is the value of the diet that is sufficient or necessary to lead a good life. The approach used depends on the people being analyzed. It must be a realistic diet based on actual surveys that specify what they can obtain and how much they spend, and an estimation of the amount of calories they obtain (including grams of protein and vitamins). This sets a threshold translated

into a money value that a certain type of household achieves based on food requirements. The concern of those studying these issues is whether people can afford the basic food requirements, comparing the difference between the actual diet and the threshold.

### **The Household Expenditure Survey**

The GOE is currently involved in using the set of indicators obtained from the household expenditure survey together with the census data, a project in which H. Laithy was involved. The household expenditure survey consists of 48,000 households. Each household was asked how much they spend on food and was asked to report all the food items they consume (and sometimes produce) and estimate the cost of that amount. Households are given a book to record what they spend on food for one month. They are supposed to be visited by representatives of CAPMAS ten times over the course of the study, but it was mentioned that sometimes it was as little as three times. People living in the household are supposed to record the information, but if they are unable, then a representative of CAPMAS is supposed to perform the task. There is a constant quarterly data collection. The 48,000 is taken from the 2005 survey. The survey is supposed to be conducted every 4-5 years, but there is now a demand to conduct it every two years as a household budget survey.

The food poverty line is based on the consumption pattern of people and is separated into quintiles. Quintiles are based on expenditure and per capita expenditure from the poorest to the richest. The first quintile is considered an unbalanced diet. The second quintile is the group that best expresses the diet of the poor. There is a lower poverty line and an upper poverty line. It is possible for people in the 2<sup>nd</sup> quintile to be below the poverty line. The aim is to turn these consumption patterns into a value and determine whether people can afford the baseline diet. It is evaluated according to regional prices, which vary depending on the region and/or the urban and rural stratification. It is interesting to note that the Consumer Price Index (CPI) was higher for rural prices and usually the prices rise much faster in the urban areas. The composition of food items depends on the region. People in urban areas tend to benefit more from subsidized food items, whereas those in rural areas (due to high amount of farming) are net producers, which may explain this phenomenon. This has policy level implications in terms of subsidized food and imports.

### **Costing Food and Nutrition**

The study tries to estimate the cost of 1 calorie by region. The calories are taken as a weighted average of all the food items based on the pattern of consumption and are then costed accordingly. Calorie requirements are subject to age groupings (or brackets), e.g. 0-10, but the margins are wide and there is a gender bias. The average household size is 4.6 persons. The family unit is defined as the group of people who share a common living spaces and expenses (which may include an extended family). It was estimated that for this year (2007), it costs per capita per person 1400 LE. In 2005 it was estimated at 1000 LE. The estimation for 2008-2009 has not yet been issued.

### **Issues raised with the study**

- The study can be biased towards people who can read and write
- Because of detailed nature of the survey and the intensity of the data collection, was mentioned as a difficult survey to handle in terms of obtaining reliable information

### **Comments made by Hania Skolkamy**

#### **Gaps in Information for Productivity**

Per the agricultural sector, all estimations of growth have underestimated or don't have the tools to estimate agricultural productivity. This may be a result of the amount of productivity that goes unreported which is hard to capture. It is difficult to gauge how the government will react because very few researchers have taken a look at implementation. The actual delivery shape and chain of production hasn't been properly studied to produce an educated reaction

### **Supply-side Issues**

There are supply-side issues in terms of quality and rationale. Supply-side information is lacking. It is hard to judge the reaction to the food crises because services in terms of social protection have been channelled to providing food but there are no studies to know if it was wise and efficient

### **Demand-side Issues**

Per demand-issues, the gender dynamic is very important to look at. There are too many assumptions about what happens in terms of fair food distribution among gender and age. Limited budgets are given to women. Women receive a fixed weekly budget for food, and the food crisis reflects the rigidity of household food budgets. Therefore, it may be useful to look at this through a decision-making angle.

### **Ration Cards**

Ration cards are now covering 60 million whereas before they were covering 3 million. According to a survey by WFE, 78% of the population has ration cards. It has become regressive, not a progressive. Extending ration cards was a decision through the World Food Policy deal. Per ration price, Egypt does not have global trade leverage, therefore in terms of a strategy, should the production cycle be changed, or should trade relations be changed? The Social Research Center is doing research on smart cards.

### **Regional Mechanisms as a Factor in Food Security**

In terms of trade and the availability of food in the markets, it is short-sighted to only advise government and NGOs on how to deal with the situation—they are not necessarily part of the regional system of trade that could be changed or made more beneficial.

### **Comments made by Dyaa Abdou**

The FAO is working on food security and the instability through FIVMS which is a mapping system (not an intervention system). The initial idea was to deal with vulnerability, and they are in the process of developing ideas for this programme

Building capacities at the national is a core research idea. For example, the IDRC project could bring in the experiences of CAPMAS and explore ways to link their knowledge and work with an intervention and policy design. It is important to make a contribution that builds bridges and not create research ideas in isolation of policy-makers

The current Ministry of Agriculture is finalizing the strategy for agriculture through 2030. H. Wassef made the point that there is no nutrition component which should be a consideration.

### **Comments made by Emad Adly**

### **Strategic Food production and Climate Change**

In terms of climate change and its effects in the country, studies and models have been done in the EU, which indicate that food security will be affected in the long run. Therefore it is important to think strategically about what type of food to produce.

### **Involving Civil Society**

How can or will civil society involve itself? Can they be a part of the solution to the research? Involving civil society could produce a win-win situation in terms of a shared vision programme.

### **The Nile Basin Initiative**

The Nile Basin Initiative may be a useful research component to consider as well, as it is a regional initiative. Susan Joeques brought up the point that the regional trade subject relates to the Nile Basin initiative in terms of the implications for regional food protection. CIDA is very involved in the Nile Basin Initiative. Yet it was mentioned that the media is very unaware of environmental and climate issues.

## **Comments made by Susan Joeques**

### **Data Collection**

It is important to collect valid information, and in terms of questionable data and research methodologies, it is not necessarily obligatory to start from scratch but rather update the methodology and apply it if possible. It might be useful to modernize the concept of shadow pricing whereby one looks behind the façade of price distortions on the market, as well as the prices that the market does not yet generate (futures) in relation to the idea of virtual markets (e.g. water)

### **The Competition Authority**

The recently established competition authority has a mandate to police the market in terms of price fixing and it might be useful to lend to expertise and findings of this project to them. Furthermore, it was suggested that perhaps the competition authority could collaborate with universities in terms of research.

### **Food Markets**

In Italy municipal wholesale food markets are held and perhaps Egypt could benefit from the same type of layout. The trend is for farmers markets to increase farmers' production.

## **Comments made by Habiba Wassef**

### **Food Security and Sanitation**

Proper sanitation is an issue with injecting waste into the water table in some areas. Bio-safety is an important component of food security.

### **Economic Development and Nutrition**

Proper economic development cannot occur without proper nutrition. The most recent directions in the research and policy direction of human health points out that the effects of malnutrition are the most egregious for children under 3 years, which is considered to be the most critical time in the life cycle. Cognitive development of Egyptian children is compromised by poor nutrition, which translates to human capital depreciation.

Nutrition related diseases will be an enormous health cost in the long-run. Egypt is considered a nutrition transition country, meaning, it carries the double burden of diseases related to both poverty and wealth. Anemia affects all demographics; it is not a socially stratified condition.

A National Nutrition Institute exists, but it is not stocked with qualified staff, therefore it is important to think of ways to strengthen institutional capacity.

### **Better Targeting through Conditional Cash Transfers**

From many studies, the net conclusion for the most useful method of intervention is to retract basic subsidies and improve on conditional cash transfers (better targeting and better conditionality). The focus on children is congruent with the “rights-based approach”, which is currently a very popular approach in terms of child poverty and country development.

### **Redefining Poverty through the Positive-Deviance Approach**

In terms of study and baseline, the positive-deviance approach is one possible method, which is taking the best-feeding practices, of those classified as poor, as an example and making it a model. Yet even without proper nutrition, the cognitive losses may be able to be recouped through social stimulation. The suggestion is that for those lagging cognitively, mothers need to be taught to give their children (social) stimulation.

### **Food Consumption Monitoring System**

A quality control food consumption monitoring system for Egypt was developed in conjunction with UCLA national research center through a friend of H. Wassef by the name of Zahra Ahmed Salah. It might be useful to retrieve any information and studies on this and revive Osman Galal’s food monitoring system.

## **Comments made by Adam Taylor-Awny**

### **Lack of Information on Food Consumption and Reactions**

Proper and accurate information on actual food consumption in the household is lacking in terms of how prices are affecting people, how people are reacting, and their coping strategies. There are groups and institutions gathering information but there is a lack of coordination. Therefore, our approach is pulling together the various stakeholders to share and agree on data collection.

In terms of food security through the Ministry of Agriculture, it may be useful to design tools from the beginning to inform policy-makers how to react during unstable situations. Bringing together stakeholders in conjunction with the government to influence the parameters of defining and targeting poverty is an opportunity

## **Challenges**

- The lack of available (raw and synthesized) information to policy-makers, which is not widely circulated
- A lack of capacity is preventing policy solutions and regulations
- The need to create a link among different sectors in society
- There is a lack of trust in the current set-up of poverty maps and targeting. Per H. Sholkamy, social workers in the household expenditure survey were not collecting data reliably or in a reliable way
- Reliable data is hard to obtain unless there is some sort of effective quality control system in place
- There is no nutrition component in the agriculture strategy dated to 2030, health aspects should be factored into this policy

- There is not a clear strategy or good implementation methods for food, water, and agricultural insecurity

## **Recommendations**

### **Data Collection**

- Consider an alternative entry point, in terms of reliable evidence and data, think of ways to improve data collection and quality
- Integrate household surveys with other potential surveys (e.g. integrated living standard measurement surveys)
- Shore up data collection methodologies (e.g. better trained social workers)
- Reassess the 1,000 poorest villages based on an updated data collection methodology
- Don't invent new, parallel systems, but rather improve on existing systems of targeting

### **Targeting and Cash Transfers**

- From many studies, the net conclusion for the most useful method of intervention is to retract basic subsidies and improve on conditional cash transfers (better targeting and better conditionality)
- Explore the gender and decision-making dynamic by comparing conditional cash transfers vis-à-vis household expenditures (e.g. money spend on food in relation to money spent on cigarettes)
- Change the composition of foodstuffs in ration cards (e.g. beans instead or sugar) and leave the decision of optional food purchases, according to their budgets, to Smart cards

### **Other**

- Encourage people to grow vegetable boxes in their homes in order to achieve comprehensive nutrition
- Look at Nile Basin Initiative as a research component, as it deals with 10 countries on a regional level.

## Focus Group 2: Water Resources, Environment, and Climate Change

### Participants

#### Expert Panel

Nasr Gameil Ainer

Safwat Abdel Dayem

Mahmoud Fahiem

Abdel Aziz Ibrahim

Ali Ibrahim

Samia El-Marasafawy

Bahaa Moursi

#### Position, Affiliation and Area of Expertise

Professor, Soil, Water and Environmental Research Institute, A.R.C.

Advisor, Ministry of Irrigation and Public Works

Deputy Head, Institute of Soils, water and Environment

Advisor, National Planning Institute

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Independent Expert IDRC, agricultural economist

Independent Expert IDRC, industrial economist

Senior Programme Specialist, IDRC

Senior Programme Specialist, IDRC (ICT specialist)

Senior Programme Office, IDRC (climate change specialist)

Research Assistant

### Opening remarks – Dyaa Abdou

The purpose of this IDRC project is to identify research programmes to build capacities and make recommendations to decision makers in order to cope with the soaring food prices starting in 2007 - 2008. There are short-term ideas to deal with the problem in terms of safety nets, better targeting and subsidies, yet many are saying we need to build capacities in the agricultural sector to deal with this crisis and other challenges with a more long-term view. Therefore, part of the idea of the research is to explore ways to advise decision-makers in the short-term with targeting assistance, subsidies, general information, and food security information; and in the long-term by addressing the situation of market instability in prices and quantity, and enhancing competitiveness in the Egyptian agriculture.

The multidisciplinary approach is used as a way to pull together experts from various fields, both the team of experts, and through contacts outside of the project, through focus groups. What is important about this focus group topic is that each item is important enough to be stand-alone topic, yet all are also cross-cutting, e.g. in order to have a competitive agricultural sector, one must take into account water, environment and climate change issues.

### Comments made by Safwat Abdel Dayem

- Egypt is heavily dependent on the Nile and some non-renewable ground water in the western desert and Sinai for water because of lack of rainfall.
- The per capita share of water is falling and has reached 850 cubic meters per person per year, which is below the water poverty line of 1000 cubic meters per year.



- Agriculture is the principle consumptive use of water. At least 70-80% is evaporated into the atmosphere and the rest becomes drainage water or replenishes the groundwater. Drainage management improves productivity. Currently there is subsurface drainage in all of Egypt's 9 million feddans. There is a possible 20-30% increase in productivity with good quality drainage. Climate change and higher temperatures may lead to higher evaporation rates and a general rising of seawater, with the Nile delta being the area most impacted. Since the Nile is the main source of water, the upper Nile basin is a major concern.
- Groundwater in the Nile Delta and Nile Valley is part of the Nile System, which is not counted as an additional resource.
- Nile water quality in Aswan is very good with 150-180 parts per million of salinity and no pollution. In Cairo, the salinity rises to 200 ppm and in the delta to 400-500 ppm and is also contaminated with biological and chemical pollutants. Runoff from agricultural areas seeps into the Nile which increases the salinity. Canals suffer from fertilizer pollutants, but the Nile is sufficient to dilute any high concentration of pollutants, although, data indicates that levels of pollutants and water quality are within safe limits for domestic and commercial use. There is a high level of pollution in lakes from industrial pollution, which will affect fisheries.
- Sewage is a major problem. In terms of the recent development of sewage practices, since 1952 the sewage infrastructure has lagged, although the quality of water supplied to people has been adequate.
- There is a Water Master Plan to 2017, which was developed in a participatory way with all stakeholders. It took years to come to a consensus in terms of water demands in all sectors. The Plan indicates that the maximum possible irrigation area by 2017 is about 11 million feddans—3.4 million more than at the start of the plan.
- While there is good knowledge on the water network quality (knowing already where the problems are), improvements are still a big challenge because of infrastructure issues.
- Farmers over-irrigated in the past because there was a lack of trust in the system. The plan now is to involve farmers. Many managing responsibilities are now being transferred to farmers. The current way of doing things is to change the mindset of farmers to having them share in responsibility, cooperation, and maintaining the system through Water User Associations.
- Water quality monitoring in Egypt is one of the best networks of monitoring in the world.
- 20 million Egyptian pounds have been mobilized for rural water improvements.
- A forecasting center has existed for more than 20 years which is connected with satellite centres in Europe that produces real time data to manage systems and measure water and rain water.
- There is a climate change programme being developed in all Arab countries with support from NASA, the German Aerospace Center, USAID, and the National Water Council to determine the water balance in each country from data images. Such data will indicate the real uses of water in each country and scenarios of the implications of climate change.

### **Challenges**

- The cost of treating water becomes higher with the presence of pollutants.
- The quality of products is or may be impacted, which could affect exports.
- Pollution needs to be mitigated, but this is difficult because it takes years to build treatment systems or change/improve current industrial systems that are the source of pollutants. High levels of pollutants are a by-product of some of the technology used in industry, but factories cannot be shut down because of social and economic repercussions.
- In terms of climate change and increasing temperatures, this will induce higher evaporation rates, which will make water availability more scarce.

### **Comments made by Mahmoud Fahim**

- There are currently 10 research units for soil, water and environment. The soil research institute has a GIS mapping of soil in Egypt. Databases are linked to systems such as GIS, land use, and monitoring fertility. The database for the Nile delta and valley, which was started 40 years ago, still contains old data and needs to be updated.
- There are research programmes for soil reclamation but they are not being carried out. In terms of soil study, focus areas are soil properties, soil fertility, and how to improve them through fertilizers and chemicals.
- The price of fertilizers have gone up significantly. Some fertilizers are produced nationally—fertilizers are both exported and imported.
- Data from satellites exists whereby analyses can be made in terms of what has changed over the last 50 years. In light of this there is a need for early warning predictions on climate change vis-à-vis land degradation. The western and eastern deserts are using some of the most sensitive techniques. Some studies for early warning exist in the desert areas.
- In 1971, the Soil and Water Research Institute (SWRI) was recognized as an independent institute of the Agricultural Research Center (ARC) in the Ministry of Agriculture.
- In 1994, Environment Research Department was initiated and the Institute name was changed to Soils, Water & Environment Research Institute (SWERI).
- Uses modern techniques like remote sensing and GIS to survey available land resources and identifying the promising areas for reclamation.
- Use of mathematical models in the field of integrated on-farm management of land and water resources.
- Monitoring sources of pollution for soils and water.
- Expanding the use of organic and bio-fertilizer and develop recommendations that are suitable for different crops.
- Climate change and its impact on crop-water requirements and the process of desertification and land deterioration.
- Maximize the return from a unit of soil, water and/or fertilizer used in the agricultural production taking into consideration the environment.
- Establishment of databases for the available land resources.
- Prepare the recommendations for optimum use and management of soils, their conservation and improving their productivity.
- Dissemination of the developed technologies for the integrated soil and water management in cooperation with the extension sector.
- Registration of fertilizers either locally produced or imported as well as market inspection.
- Increasing the production of bio and organic-fertilizers and their use in agricultural production.
- Cooperation with local, regional and international institutions in the areas of applied research.
- The Institute is a consultant for carrying out studies concerning soil-plant and water relationships for farmers and investors on the local and regional (Arabic and African) levels.

### **Major Achievements**

#### **First - Integrated management of land resources:**

- Soil survey and classification for production of soil suitability, soil productivity, land use and thematic maps.
- Using remote sensing and geographic information systems to establish land resources data
- Estimate cultivated areas of main strategic crops in the Nile Valley and Delta.

- Study the erosion of beaches at coastal areas.
- Monitoring of urban encroachment on arable land.
- Conducting researches and applied studies on soil management (laser leveling-evaluation of field drainage - addition of agricultural gypsum – mole drains).
- Providing services to farmers and organizations to maximize the return of a unit of soil, water and fertilizer.
- Recycling of agriculture residues for organic farming.

#### **Second - Integrated Irrigation Water Management:**

- Estimate and prediction of water requirement of field and horticulture crops.
- Establish and evaluate field irrigation systems.
- Improvement of field "marwa" at farmers fields with the cooperation of water user association in 16 governorates.
- The establishment of demonstration fields for safe use of agricultural drainage water.
- Enhance the skills of extension agents and farmers in cooperation with the extension sector and GTZ.
- Applying water harvesting models and technologies at the north west coast.
- Conducting extension programmes for modern irrigation systems in cooperation with farmers in Toshka.

#### **Third - Environmental Aspects:**

- Assessment of the hazard successive mineral fertilization effect on soil and plant.
- Evaluation of chemical and biological pollutant from agricultural drains and blended water.
- Preparation of country paper of international organizations in the field of environment:
  - Development of systems and legislation to protect land and water resources in Egypt.
  - Determine the level of pollution, land degradation and environmental impact in Egypt.
  - Environmental protection for land resources in the Arab regions.
  - Protection of water and land resources from pollution.

#### **Fourth - other activities:**

- How to reclaim your land, published book on the Web.
- Receive foreign delegations.
- Summer training for university students in SWERI Research Departments.
- Information Unit established to provide data concerning SWERI activities and staff information.
- Extension and Training Centers (Soil, Water & Plant Analysis at Giza; On Farm Irrigation Management at Sakha-Kafr El-Sheikh; Recycling of Agricultural Residues at Moshtohor-Kalubia; Soil Ammonium Gas Injection at Fayoum; Soil Conditioners at Ismailia and Remote Sensing & GIS at Giza).
- Production of bio-fertilizers, compost and biogas.
- Injecting the soils with ammonia gas.

#### **Comments made by Nasr Gameil Ainer**

- According to current estimates, it would cost LE 480 billion to fix the environmental problems of Egypt

- There are 10 branch offices to the ministry at the governorate level and there are environmental offices in each governorate. The offices carry out the environmental impact assessment of new projects.
- The ministry of environment is not up to par, they lack decision-making powers and have to work through other ministries. There is a lack of coordination.
- Agriculture contributes to 1/5 of the gross domestic income and consumes over 80% of the total water supply
- The Ministry of Water Resources and Irrigation (MWRI) is formulating the national water policy for the 21<sup>st</sup> century to face the challenge of water security. The policy's overall objective is to utilize the available conventional and non-conventional water resources to meet the socioeconomic and environmental needs of the country. The formulated policy focuses on three major aspects: demand management, resources development, and environmental protection.
- The new strategy of the GoE is to expand the inhabited area from 4-25% of the national territories.

### **Farm Water Management**

- Since agricultural irrigation consumed more than 80% of the total available water, management of irrigation water has become a main priority in light of the demand management sector policy.
- The objective of this policy is to maximize the crop yield per each unit of applied water, which could be achieved by:
  - Determination of the actual irrigation water that should be applied depending up on the leads to decreasing in the crop yield [sic].
  - Irrigation scheduling to be based on the actual water needs during different physiological stages of the growing corps
  - Selecting the proper irrigation method on the basis of the local environmental conditions of soil, crop and climate.
  - Agricultural aspects owing to rationalize irrigation water at farm level [sic].

### **Irrigation Scheduling**

- Crops experience different physiological stages of growth depending on sensitivity to irrigation, therefore, irrigation should be applied according to critical growth stages (e.g. calculated water use during critical stages)
- Irrigation scheduling according to critical stages of growth maximizes watering effectiveness, and as a consequence, conservation of available water resources

### **Cultural Practices**

- Cultivation of crops that use a high amount of water , such as rice and sugarcane, are most effective in terms of irrigation management if they are of the short duration [of planting] variety. Effectiveness of such crop varieties (that are large consumers of water) should be maximized because they consume almost 1/3 of the total water allocated agricultural irrigation.
- Wide furrow cultivation in conjunction with a lower watering depth by 1/3 produces as 25% reduction in irrigated water whereas a normal furrow with traditional irrigation uses 7.5 cm. as water depth about soil surface.

### **Irrigation Method**

- The irrigation method should be selected depending on the local specification of soil, plant, availability and quality of irrigation water and environmental condition

- Surface irrigation is conducive to heavy clay-like soils when paired with proper leveling.
- Pressurized irrigation systems are the most effective method for coarse texture sandy soils due to its high permeability.
- Proper design, evaluation and management of different irrigation methods is vital to effective water irrigation.

#### **Comments made by Bahaa Moursi**

The Ministry of Environmental Affairs aims to protect the environment from pollution through the following policies:

- Economic programme to manage recycling with a comprehensive management for solid recyclables
- Information system programme and environment satellite
- Sea pollution programme control
- Technology transfer programme and support of Egyptian exports
- Learning and training programmes and environmental diffusion program
- The trees method programme and safety use for underground water treatment
- Local branches for environmental affairs
- Develop products that are environmentally friendly

#### **Comments made by Abdul Aziz Ibrahim**

##### **Competitiveness and Cross Cutting Issues**

- Comparative advantage and competitiveness of agricultural commodities when factoring in the price of water, meaning we have an economic efficiency in a specific commodity or service. Water should be priced as an agricultural resource.
  - Such a study can give policy advisors a short run and long run view/data on what will have comparative advantage in terms of production, and what doesn't.
- Value chain analysis of strategic crops
  - In terms of strategic crops and commodities to predict the effect of all agents in the value chain
  - Assess who is taking subsidies and who isn't
  - Evaluate the relationships between international and domestic prices including margins and internal costs.
- Policy Analysis matrix – current price and efficiency price extended to include environment and externality. Takes into account externalities such as climate and prices agricultural commodities. Should determine whether efficiency is being maximized.
  - 2 set of indicators
    - Economic protection of the commodity and the structure of incentives facing the agricultural sector
    - Economic efficiency indicator as expressed in the domestic resource cost (cost of and value added of resources)
  - When evaluating water price, it may not be efficient, therefore a model should be used to simulate the cost of soaring prices on the 2 sets of indicators
- The Policy Analysis Matrix can be applied to livestock (e.g. dairy products, fish in ponds, poultry) to determine whether protection exists or not. (comment by Ali Ibrahim)

- From an economic point of view, must use virtual water and limit production (and import) of what it is determined Egypt does not have a comparative advantage
- Egypt is approaching the water poverty line
- In important area of focus is Egypt and the Nile Basin as water is being imported to Egypt from riparian countries

#### Comments made by Samia el-Marsafawy

- Agriculture in Egypt is expected to be especially vulnerable because of climate changes, whereby further warming is expected to reduce crop productivity
- This is particularly damaging to Egypt whereby a large share of labour force and economy is involved in agriculture
- Scientists in Agrometeorology and climate change unit, Field Irrigation Department, SWERI, and Agricultural Research Center studied the impact of climate change on the agricultural sector in Egypt. The impacts on crop productivity, crop water use, crop water productivity and farm net return are addressed in the following results:
  - Wheat grain yield will be reduced by 9% if the temperature increased by 2° C and by 19% with a 4° C increase based on present production. Water requirements of wheat as a winter crop would increase about 2.5%.
  - There would be a reduction in maize grain yield by about 18% and water consumptive use would increase by 8% under climate change conditions compared to current conditions.
  - Sorghum grain yield would reduce by 18% and water consumption would increase by 8% due to climatic changes by the year 2050 based on the present production and water consumption. The reduction in yield will be 14% and the increase in water consumption 6% between 2010 and 2050.
  - Soybean grain yield would reduce by 28% and water consumptive use would increase by 15% due to climate change by 2050 compared to grain yield and water consumption under current conditions.
  - Barley grain yield would be reduced by 20% and water consumptive use would be decreased by 1% by the year 2050.
  - The reduction of rice crop under climate change would reach about 11% and water consumptive use would increase about 16% based on the present rice crop production and its water consumption.
  - Cotton crop would increase by 17% due to +2° C and 31% by +4° C compared with productivity under current climate conditions. At the same time, water requirements would increase about 10% under future climate compared to current climate conditions.
  - Concerning farm net return, an increase in temperature of 1° C would reduce net revenue by \$968.94 per hectare (hectare = 2.4 feddan) without livestock and by \$1044.28 per hectare when livestock is included. Increasing temperature of 1.5 of 3.6° C will greatly reduce farm net return per hectare. The reductions in net return are \$1453.41 and \$3488.18 per hectare for increases of 1.5 and 3.6° C respectively.
  - Regarding economic studies for sugarcane, climate change without adaptation studies could decrease farm net return by 44 and 70% for holders who own the land, and holders who rent it, respectively.

#### Further Implications of Climate Change

- Adaptation to climate change in Egypt is a major issue to identify appropriate crop management strategies, maximize benefits and minimize risks associated with agriculture in Egypt
- Future adaptation strategies to climate change may involve the development of new, more heat-tolerant cultivars, new crops (more cotton cultivation as alternative to some maize crop), and/or changing practice (optimum sowing dates and cultivars for suitable agroclimatological regions).
- Modification of cropping pattern (i.e. partially growing cotton after wheat in the same year and land) and reducing or keeping the current area under cultivation with some high water consumer crops (i.e. sugarcane and rice crops) can be adopted.
- Generally, climate change could decrease the national production of major crops in Egypt (except cotton crop). At the same time, water needs will be increased. Farm net return would be decreased without adaptation strategies.
- Future adaptation strategies to climate change is a major issue to identify appropriate crop management strategies, maximize benefits and minimize risks associated with agriculture sector in Egypt.

## Final Comments

### Dyaa Abdou

- To deal with the increase in food prices, there has to be a supply response based on the set of higher prices that is transferred to the farmers
- Did/have international prices transferred to the national farmers or not? (links to value chain analysis and transfer costs) . E.g. as observed through transfer costs.
- If so, is there a supply response or not? What happened as a result of the increase in product prices? What is limiting the producers and traders responses to increased prices?
- Must look beyond crops to include livestock products.
- Transferring information is an important factor for dealing with sustainable agricultural and rural development.
- There seem to be an agreement from all participants that the important issues of water, environment and climate change be used as cross-cutting issues when assessing the supply/marketing responses and competitiveness of the agriculture sector.
- The issue of recycling of crop and agricultural residues is of special importance to increase farmers income, introduce clean agriculture practices, provide employment opportunities, reduce pollution (black cloud), reduce production cost (reduce use of chemical fertilizers, etc.), assist in rationalizing water use, and enhancing women empowerment.
- The issue of Recycling Agricultural Residues could be one of the possible proposed research areas. Multidisciplinary approach need to be considered in the design and implementation of all research ideas.

### Heba Handoussa

- There is a need to better coordinate efforts and decisions in terms of the enforcement of law. The problem at the level of decision-making is in the lack of follow-up and cooperation.
- In order for full enforcement, farmers must be integral in the decision-making process
- The burden may be thrown on a ministry that doesn't have the resources or there may be competing mandates across ministries.
- Need to review the structure of comparative advantage in Egypt – the parameter deciding outcome or impact, that's where we need a lot of new analysis.
- The Ministry of Environment has no resources and that needs to be taken into consideration.

- We are looking for policy suggestions that will influence policy among ministries and ultimately increase employment, wages, and sustainability.
- Has there been any analysis of government investment over the last years because investments seem to have low returns.
- In terms of the value chain analysis, there is a study for one crop, but what else can be done in this area? What is the priority area?
- Egypt has not experienced a green revolution like Asia in terms of the inputs in investments.

#### **Adam Taylor-Awny**

- Looking at expanded vulnerabilities and food price increases and now financial markets are affecting that as well (e.g. the volatility of wheat).
- In terms of typing all this in with water, the question is how to calculate the real cost of water. Is it feasible to calculate the real cost of water or does that skew the whole equation in terms of illuminating the analysis of comparative advantage?
- Need to keep in mind policy implications for the most vulnerable people (who are to a large extent farmers)

#### **Follow up comments by Ali Ibrahim**

- Either consider a full recovery cost or maintenance cost in terms of costing water. We can't figure real comparative advantage if we don't cost the water in terms of management and maintenance.
- What is the tradeable and non-tradeable breakdown of this cost. Tradeables are domestic costs. The cost of water is traditionally used as a non-tradeable domestic cost, but actually in a disaggregated way such that perhaps 30% is tradeable. This is crucial when analyzing policy analyses.

#### **Adel El Zaim**

- Keep in mind the role of ICT, or media and TV in informing farmers and consumers, or creating awareness on the issues (e.g. price of water)
- In terms of collaboration – think about shared databases among ministers



### **Focus Group 3: Meeting with the Ministry of Agriculture and Land Reclamation (MALR)**

#### **Attendance:**

Dr. Saad Nassar, Advisor, Ministry of Agriculture and Land Reclamation, MALR.  
Dr. Akila Hamza, Coordinator of the Food Security Information Center -FSIC, and Supervisor, Regional Institute for food and feed, MALR  
Dr. Heba Handoussa  
Dr. Dyaa Abdou  
Mr. Adam Taylor-Awny

#### **Discussion and Conclusions:**

IDRC Team has reviewed briefly the objectives and mandate for the IDRC initiative. The Team has also reviewed the major preliminary findings and envisioned approach including the major proposed elements of the research framework (poverty, nutrition, food security, food consumption, subsidies options, coping strategies at the household level, risk management and market stability, supply and marketing responses, institutional support and capacity building). Dr. Nassar and Dr. Akila have reviewed the major work carried out by the MALR and provided valuable insight to several related issues to the IDRC initiative. The following are the major issues discussed:

#### **Nutrition, Food Security and Poverty:**

- The FSIC is established in 2007 directly under the Minister of Agriculture
- The Center collates data and information on all aspects of FS and provides the decision makers (government officials, farmers, private sector, etc.) with reliable data and analysis. The FSIC does not collect primary data from the field.
- It collaborated now with the National Institute for Nutrition (belongs to the Ministry of Health); Institute of Food technology; and the Regional Institute for Food and Feed.
- The FSIC has a steering committee including representatives from National Institute for Nutrition (MOH), Cabinet of Ministers Information Center, Ministry of Economic development/Planning, Economics Affairs Sector/MALR.
- The Center collects secondary data from all national and international agencies including WB, WFP and FAO.
- FAO is providing technical assistance to build the capacity of the staff (selected recently including nutrition specialists, agricultural economists, data analysts/statisticians, etc).
- The Center is providing training to the extension workers in the ARC/MALR on how to collect reliable data on consumption and nutritional aspects.
- In collaboration with the Regional Institute for Food and Feed, the efforts will be supporting diagnostic studies to also provide recommendations and solutions.
- The FSIC is collaborating now with Consumer Protection Organizations and other NGO. It has no objection to work closely with NGOs in data collection and analysis.
- The FSIC is considered now as the focal point for all food security related information/issues in the MALR.
- The National Strategy for Nutrition was issued a few years ago (a copy will be shared with IDRC).
- Poverty, food security, and nutrition should be studied in relation to targeting and coping strategies. The question of subsidy options is also highly related.

#### **Environment:**

- The issue of air pollution and means to deal with it need to be treated as a priority issue. Research dealing with “the black cloud” is a priority due to pressing health, environmental, economic and social implications.
- The lead units in implementing a research project dealing with the black cloud could include MALR; Ministry of Environment; and the Ministry of Local Governance including the Agency of Village Building and Development (!!).

#### **Supply and Marketing Responses:**

- Supply and Marketing Response/ Competitiveness component is a priority for the MALR.
- It needs to include Domestic Resources Cost –DRC- with sensitivity analysis/ scenarios including water, energy, climate changes, and other cross cutting issues.
- In addition commodity models based on value chain analysis for assessing the international-domestic prices interrelationships and competitiveness is highly needed.
- There is no need for additional surveys and the data available and capacities in the Economic Affairs Sector in the MALR should be utilized.

#### **Institutional and Capacity Building:**

- Institutions Support and Capacity Building is a priority for the MALR.
- Emphasis should be on extension services, cooperatives, fishing regulations, and patent law in accordance with WTO regulations.

#### **Overall Issues:**

- H. E. Minister of Agriculture expressed interest to support the IDRC initiative and provide needed support in implementation.
- Land Reclamation is an important issue but not a priority. Adequate information and analysis seem to be available in the MALR.
- The discussion confirmed the Team’s previous conclusion about the priority components.
- Additional names mentioned for possible collaboration at the implementation stage include:
  - Dr. Sonia M. Ali, Zagazig University;
  - Dr. Gamal Siam, Cairo University,
  - Dr. Ibrahim Rehan, Head, Village Building and Development Agency;
  - Dr. Ahlam El-Nagar, Head, Economics Affairs Sector;
  - Dr. Mawaheb Abu El Azm, Head of Environment Agency
  - Dr. Tarek Moursi, Cairo University;
  - Dr. Mohamed Hassan Abdel Al, Cairo University; and
  - Dr. Sahar Tawila, Social Contract Center
- The multidisciplinary approach could be achieved and sustained through establishing institutional links for programme implementation (rather than individual researchers). Each collaborating Unit/Agency nominates a focal point/unit to represent the agency and to coordinate within.

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## Focus Group 6: The Urban Market Setting and the Urban Poor

### Participants

#### Expert Panel

Noura Abdel Waheb	Senior Economist, World Food Programme (WFP)
Farid Hosni	Former expert at FAO
Alia El Madhi	Dean of the School of Political Science, Cairo University
Nihal El Megharbel	Principal Economist, Egyptian Center for Economic Studies (ECES)
Malak Rouchdy	Professor of Sociology, American University in Cairo (AUC)
Maurice Saade	Regional Policy Officer, Food and Agricultural Organization of the United Nations (FAO)
Mark Smulders	Senior Economist, Agricultural Economic Development Division, FAO, Rome

#### Position, Affiliation and Area of Expertise

#### IDRC Team

Eglal Rached	Regional Director, IDRC
Lamia El Fattal	Senior Programme Specialist, IDRC
Susan Joekes	Senior Programme Specialist, IDRC
Adam Awny-Taylor	Independent expert in social protection, IDRC consultant
Dyaa Abdou	Independent expert in agricultural economics, IDRC consultant
Heba Handoussa	Independent expert in industrial economics, IDRC consultant
Valerie Kirk	Research Assistant, IDRC consultant

### Participants

#### **Nihal El Megharbel**

- Wholesale/retail trade comprises 9% of employment in Egypt whereas the figure is around 20% in other countries
- The sector receives little investment and there is a lack of existing data
- The sector is open, but franchising is the problem
- Constraints to the sector include: the cost of distribution (50% of the price of goods); the problem of waste (agribusiness); not being able to build on agricultural land (remote areas); pollution; transportation (transporting workers); and dominated 90% by the informal sector
- CAMPUS is the principal source of data and information
- What has been helped is the commercial registry—the informal sector does have commercial registration
- The small size of land with no mechanization is a problem, unable to invest in new land technologies

#### **Noura Abdel Waheb**

- International prices (wheat) were offered to farmers as an incentive to plant more wheat, but prices decreased leaving them discouraged
- Government needs to set price to create incentives
- There is free trade in wheat, but not in flour
- You can buy “72” but not “82” on the market. “82” is not traded on the market and has better qualities
- There is a government policy to encourage high production of wheat, but farmers are facing problems with fertilizers

**Malak Rouchdy**

- Accessibility of data [in terms of urban poverty] is not readily available, e.g. figures of peddlers were obtained from NGOs working on the protection of peddlers
- MR work focus on the urban poor: grocery shops, fowl cart merchants, and the impacts of globalization
- Egypt is a net importer of fava beans (e.g. from France and China), yet is the second biggest consumer in the world (after China). In the 90s were almost self-sufficient, but due to infectious diseases, lost 30-40% of the crop and it was replaced by clover. Nothing is being done now to control supply and demand.
- Everyone is competing over Egypt except for Egypt in the production of fowl
- Price increases don't always reflect the real increase
- Other additives (some harmful, some not) are added to fowl to reduce the cost of production
- The number of street vendors are increasing with the population, and government is not necessarily giving them more space so they have to hide

**Alia El Mahdi**

- Street vendor numbers are increasing despite harassment
- In regards to cost from the farm to consumer, the lowest margins are in farming and the highest margins are within wholesale trading—as high as 3 times the farmer price
- Farmers markets and cooperatives don't exist whereby higher prices (benefitting the farmers) could be obtained
- Using agricultural land for storing is forbidden

**Mark Smulders**

- See “Food for the Cities” (FAO) for latest information on addressing the challenge of urban poverty
- Trinidad and Tobago is an example in progressive actions towards urban poverty
- The programme works with government on ways to facilitate and not frustrate

**Lamia El Fattal**

- It would be interesting to look at which countries have a better reflection of price transfers, better health with the food that is produce, and a more effective value-chain

**Eglal Rached**

- What is important for this exercise is advising policy makers on how to best react to a situation

**Susan Joekes**

- There is an enormous potential to find a major that supports initiatives and that would agree to talk to street vendors, NGOs, and other association on the topic of street vendors and urban poverty

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## Annex IV Workshop Report

**IDRC workshop**  
**Food Security & Vulnerability: Priority Research Themes**  
**For Policy Influence and Impact**  
27.11.2008

### Background to the Workshop

The purpose of this workshop was to help validate the more salient policy relevant research themes on how best to mitigate price shocks and their effects on the poor, in the short and long term. Once validated, these research themes are expected to feed into the design of a more elaborate policy-relevant research initiative which IDRC and other donors may be willing to support.

This workshop is an integral part of an ongoing multi-disciplinary scoping study supported by IDRC to outline the political, economic and social vulnerability aspects of the food crisis in Egypt which followed an initial roundtable discussion, held in June 2008 with experts in agricultural economics, social protection, and the environment. This led to a call for a more systematic study to support applied research that is policy relevant in order for action and invention to occur. A series of focus groups on cross-cutting themes were held, in addition to a comprehensive survey of the current literature with a particular focus on uncharted territory of the food crises, or “what hasn’t been done”.

### Opening Remarks

#### **Workshop objectives in the agenda:**

- Validate the suggested research themes
- Propose other key research themes that may have been overlooked
- Seek to establish linkages and connections amongst the research themes to strengthen interdisciplinary thinking and approaches

#### **Workshop objectives from the opening remarks:**

- Clarify what is financially feasible within a timely manner (e.g. 4-5 years)
- Identify the burning questions that deserve research, within the context of a pro-poor research agenda
- Affirm or refute the material presented, in addition to adding questions that may have been overlooked

### Topics Discussed

The following topics are a synthesis of comments participants made at the workshop.

#### **Data Collection and Quality**

The quality of existing of existing data in terms of its integrity and sufficiency has repeatedly been called into question, which must be taken into account when quoting figures. It was stated that the food security information center at the Ministry of Agriculture and Land Reclamation (MALR) has suffered from poor data collection for the last 20 years. Yet it was also stated that data is unreliable all over, not just in Egypt. The Food Security Information system has a mandate to work on data to inform policy makers on what action to take, but it is a very nascent system. Since 1998, there is a system that takes surveys every other year to monitor what is being



consumed. The problem is the lack of access to this data, which needs to be addressed by policy makers. Despite innovations in technological progress, quantitative static approaches to data collection in general are still being taken. Information collected by the army, CAPMAS, etc. should be utilized and with the focus being on what is researchable.

Fact-finding is an important issue to explore more systematically. Focusing on fact-finding rather than data may decrease or minimize overlaps and parallels to what has been done, e.g. in terms of the household surveys. It is known that leakages and inefficiencies in subsidies exist, therefore it could be useful to decrease dependence on subsidies in tandem with creating income-generating policies.

Information within the agricultural sector is lacking, and the database of the agricultural sector is very sparse. There has not been a comprehensive soil quality survey or census since the late 1960s. At some agricultural institutes there have been complaints about the lack of economic analysis to support their research. There is fragmentation and isolation of information. There is a need to have comprehensive data standardization, yet the cooperation of MALR and its affiliates are essential. Before designing a workable policy, a common, agreed upon database or set of statistics needs to be developed, in order to support measurable research can be measurable and instead of that based primarily on observation.

The agricultural economic affairs sector is the official source of agricultural information in Egypt. There are statistic units with well trained workers per fieldwork and data collection on the agricultural sector. There is now quantitative data on water, machinery, poultry, and agricultural production.

The Labor Market Survey done by Ragui Assaad has been successful because there have been resources to support it. The last good agriculture survey was done by IFPRI in 1999. A similar updated survey could incorporate many perspectives, e.g. poverty in the countryside.

### **Coordination and Sharing of Information**

There is a serious lack of coordination among research centres that is not being addressed. Regarding data collection, there needs to be better coordination mechanisms between the national institutions and international organizations. In terms of research, it can be useful to have multiple sources tackling the same issue because findings can then be compared and contrasted. Obtaining information through multiple sources is crucial, as information is an access point to power and money. Information sharing should not be marked as the responsibility of or government, but rather collaborative efforts should be pursued. The production and consumption of knowledge, e.g. the data on poverty needs to be circulated among as many circles as possible in order to validate it. Since 1998, there is a system that takes surveys every other year to monitor what is being consumed. The problem is the lack of access to this data, which needs to be addressed by policy makers.

Mobilizing forces is a function of advocacy, not research. IDRC could be a catalyst for sharing information, there is data, some more reliable than other. This type of research can catalyze a sharing of information.

### **Poverty**

The food poverty line is not necessarily a good indicator of poverty, according to one opinion. Solutions to poverty reduction will not just be found in the agricultural sector. It is important to specify between rural and urban Egypt because it is in the urban sphere that food prices are discussed. To reduce poverty in rural areas, it is important to look at land area vis-à-vis

population and non-agricultural activities for further generation of value added or to provide inputs. A map to identify the poverty pockets, e.g. the poorest of the poor are in Luxor, could be a useful research project to undertake.

In terms of migration to the cities and the issue of land reclamation, the poorest of the poor are the zaheer al-zahrawi. It costs less to develop such areas, for example developing underwater aquifers. In this way, livelihoods are being developed and it is a better option than taking from the Nile. By giving the money and the resources to the cities, it is only encouraging people to go to those cities.

### **Subsidies**

There was general agreement on the need for better targeting of food subsidies. The problem is in advocacy and how people perceive subsidies, meaning awareness needs to be raised among people when/if subsidies are revised. It might be helpful to look at geography and see what has happened in other countries.

There is a political motivation behind subsidies and that must be factored into the equation, which is an opportunity to engage with political scientists on the issue. Per fiscal issues, gas/petrol subsidies seem to be regressive to the rich and middle class whereas food subsidies are progressive.

### **Coping Strategies and Mechanisms**

The strategies of the most vulnerable include inventing ways to cope with the crisis. Informal research at Save the Children suggests that villages in Upper Egypt, coping mechanisms are reflected by the drop in girl's enrolment in school, increases in domestic violence, and more child workers. The research question should focus on the impact and why this is important.

Per coping mechanisms for small farmers, there is research that suggests that small farmers and consumers are more responsive to price signals than large farmers. The response should not be undermined in terms of switching from cash to food crops. The questions were posed: what is the future of small landholders, what are they surviving on and how are they diversifying?

In some of the slums in Cairo, there are families which are practically destitute and are qualifying for cash transfers, yet are spending a chunk of their income on private education lessons for their children. Families are essentially being coerced to pay LE 164 per month per family for private tutor fees because children are not receiving adequate education during normal hours. Sacrificing children's education is not something parents are ready to compromise on, therefore this is an area worth investigating.

### **Nutrition**

Research would be well directed towards developing tools towards managing and coping; monitoring food availability; and consumption patterns. There are efforts within different agencies on the impact of food prices on the cost of living and the overall economy; changes in the poverty line; and issues of the nutritional composition of food.

The concept of food security has changed over the years—failing to look at hidden hunger based on malnutrition. In the 1990s, FAO did an analysis of food subsidies in terms of food security, concentrating on available calories. Make a distinction between malnutrition and under-nutrition. Malnutrition isn't immediate, but rather it is an enormous health cost later on with 40-60% of communicable diseases being nutrition-related.

Because Egypt was also hit by the avian flu, the coping strategies of the poor are stretched to the maximum. The impact of the crisis on nutrition status is not known. There needs to be an assessment of the impact coupled with the previous crisis. Attention needs to be paid to vulnerable groups, such as women and children.

Much less known are factors influencing nutritional outcomes of the most vulnerable groups. Nutritional development is crucial during pregnancy and the first years of life. It is important to look at what the government can do to provide information on nutrition to ensure early childhood development has as much of a priority as food subsidies (an element of the social contract).

There is still a lack of information on what is happening at the household level. Egypt is using dietary guidelines from 10 years ago; new guidelines need to be developed. According to a nutritional survey, there is a deficiency in caloric intake, therefore better targeting is needed.

### **Health**

What are the interactions between poor health status and access to food, which is not being directly looked at currently? It is oftentimes health disasters in the household that put households into destitution.

### **Agriculture**

The agricultural system has long suffered from inefficiency and severe deterioration. The issue is how to go about building an efficient system. One explanation perhaps is that in the local communities, farmers have not participated as much as expected in different programmes that have been designed. Why haven't programmes been designed with the incentives that will make farmers want to be involved? The farmers are likely acting in a way that is inconsistent with the designed policies. The problem is that policies have not been designed well. For example, rice uses 18 percent of water [agricultural], but it is the biggest cash crop, therefore the Ministry has difficulties setting policy. Another major problem is that MALR has been quoting fluctuating prices to farmers.

### **Climate Change**

Climate change is an important issue, especially considering Egypt exports a lot of fruits and vegetables. Agricultural production follows a geographical pattern from winter through spring. Climate changes will require alterations in agricultural strategies. In the past few years changes in the physical climate during the winter months have been observed, which affects production and export. We need to have an entity that supplies information on climate changes in terms of what is actually happening and what is not.

### **Contract Farming**

Contract farming, of which much is informal, is useful. Donors are now working in this area, encouraging farmers to get together with traders and others who provide technical assistance and seeds. The government is investing towards contract farming. But there is a loss of benefits due to lack of enforcement. It is necessary to look at the legal aspects to protect farmers and enforce regulations. In the experience of the SME sector, some sectors were relying on subcontractors.

In contract farming, contracts fail because of disagreements on price and quality. It is necessary to study the design of contracts and introduce flexible language. It would be useful to look into value chain analysis and examine the potential for better outputs, forward contracts, and more private sector involvement with farmer crops.

### **Residues**

The issue of residue is important and is a problem in Egypt which has not disappeared. Residue is not necessarily as wasted as much as is believed. Informally and in the informal sector, much more is used than people know about. Per corruption and residues, the sugar industry is an example in Egypt where in the last 20 years all other industries have come to depend on the residues from sugar cane. The use of agricultural residues produce more income than the sugar itself, therefore viewing residues in terms of waste only is short-sighted.

From the experience of the agricultural research center, if small farmers are helped through technology in terms of fertilizer (manure), fodder, etc, the problem of agricultural residues in the rural community will be addressed.

Substituting organic fertilizer for chemical fertilizer can be cheaper. On the issue of recycled products, it is worth looking into, but sometimes it is necessary to create markets for recycled products. Small farmers cannot buy compost or silage (recycled products).

It was suggested that IDRC develop research on recycling technology, or develop a methodology of recycling technology.

### **Cooperatives**

Interest was expressed on the issues of cooperatives, particularly in relation to fragmented landholdings. It is known from industrial literature that cooperatives can be collaborative or competitive, therefore it is important to explore why they manifest themselves in a particular way.

### **Extension Services**

Extension services are an important area to be examined further in terms of being supplied through the private sector. Many are seeing the failure of government, (Farmfritz) looking at cost effectiveness, and looking at the government to provide incentives for this. One participant, speaking as an exporter, mentioned that it is always a challenge to find medium and small growers to supply PICO exports. Furthermore it was questioned whether extension services are qualified enough and if there is a way to find the best grower.

### **Insurance**

Regarding global insurance, it is known that crop insurance is heavily subsidized in the US with moral hazard. Cost must be reviewed in order to establish levels of government commitment. Insurance should be implemented by cooperatives after reform.

### **Supply**

Incentives are needed and the institutional marketing structure needs to be looked at. In situations of monopoly, the people who buy the crop decide the price, whereas before it was the government that decided. Now the farmers are being squeezed. Farmers are not benefiting from rice revenue but rather the middlemen.

Aggregate supply reasons are not dependent on prices, but rather irrigation and irrigation products. The aggregate supply response is small, whereas the crop specific supply response is large. Rice is an attractive crop for farmers in terms of profitability. The supply response affects acreage and yield. There was an excess of supply price, which now has had a bad multiplier effect. Now Egypt is exporting 300,000 tons of rice, which is like 3 billion cubic meters of water per year.

Per legal reform work in agriculture in terms of rice cultivation, illegal cultivation has been practiced by MALR. There needs to be restrictions on those that are flouting these laws.

## **Trade**

Many developing countries are producers of food products, which means there may be many countries that are benefiting from a favourable terms of trade from the viewpoint of some trade economists. One of the major challenges facing traders and exporters is logistics—commodities are very difficult to move around in Egypt.

## **Risk Management**

Information from MALR on risk management suggests that transmitting international prices to local prices is not always beneficial and that giving planning horizons to farmers is necessary. Regarding the transmission of international prices, one must also take into account supply issues. One has to differentiate between small and large [farmers/landholdings]. The small [farmer/landholdings] will not benefit, the large will. Land tenure arrangements worsen risk management to farmers. Most have short-term contracts, which begs the question of how farmers can plan for the medium and long-term. Risk management systems should comprise three elements: early warning; societal awareness and preparedness; and support and enabling methods.

## **The Food Crises in the Long-Term**

Because of the nature of the rise and volatility of food prices, it is a very current topic, yet it is a long-lasting problem. There has been a spike but it is more important to examine the long-term trend. Prices did go down, but they still remain at least 50 percent higher than a few years ago. Domestically, in Egypt, major drops in food prices have not been observed. Long-term projections suggest prices will remain 50 percent higher and that it is not a temporary peak. A strategy needs to be devised for both the short and long term.

## **Conclusion**

### **General Points**

- Agricultural and non-agricultural issues are mutually reinforcing
- The institutional market structure (e.g. value chain) is extremely important
- The incentive structure is a very important element
- Climate change is an exogenous variable, but a cross-cutting issue
- MALR is not fully aware of all that is being done and this needs to change.
- There is an opportunity to remove the labour aspect and get more mechanized intensive non-labour intensive
- Instead of defining the job that needs to be done and then identify the mechanisms—start by establishing the mechanisms and institutions and running them properly to take care of the job
- The information presented at the workshop must be understood within the context of history and how this stage was reached

### **Important Areas to Study**

- How the poor cope with rises in price
- Producers are being shielded from exporters
- Internal trade and how it is disconnected from external trade
- School feeding as a way to protect the vulnerable and combat the erosion of human capital from the long-term effects of the food crisis.
- Developing tools towards managing and coping; monitoring food availability; and consumption patterns

- Explore the supply response (in terms of international price transmissions) in addition to inquiring why productivity is low
- Political economics of land reclamation
- Supply chains in terms of forming strategic commodities to pinpoint bottlenecks
- The proper reusing and recycling of water
- Do a micro-study to study/track 3 villages within a period of a year or two (headed by, e.g., a cultural anthropologist with an economist on the team), observing one village as a system
- In terms of the micro-study, examine what has happened in the last 20 years in terms of the changes in rural markets, consumption, women's roles, etc.
- It is useful to look into value chain analysis and examine the potential for better outputs, forward contracts, and more private sector involvement with farmer crops

### **Clarifications**

- Distinguish between rural, urban, upper Egypt, and lower Egypt within the research
- Distinguish between old lands and new lands, as well as Sahara lands (distinguished at the government level)

### **Questions**

- What is the incentive structure that farmers in Egypt are facing that make them fail to produce sufficiently and how to link them to that market?
- What is encouraging or discouraging farmers? What happens on prices of inputs and outputs?
- Where is the missing middle—once things are out of the hands of farmers and enter post harvest facilities, how can value be added?
- How can we make sure suppliers are providing what needs to be supplied?
- A lot was said about the losers, but we are the winners and does that have implications on the middle class in Egypt?
- Can these external shocks push forward a democratization of the system? How can we make use of this external shock to revisit water subsidies?
- How does export oriented agribusiness affect water as a public good and what mechanisms are there for public research in using water from economic and industrial production?
- How can ICT be expanded and developed in terms of access to information?
- Is it wise to have a multiplicity of institutions (and parallel institutions) at the village level, e.g. water institutions, the old co-op system, CDA—or should organizations be consolidated to work the farmers?

### **Final Remarks**

#### **Lamia El Fattal – IDRC representative**

The overall problematique is that food prices have risen and will remain high. Large research areas were defined and the research areas highlighted by the consultants have been validated. Yet, although they were validated, they were not able to be prioritized, therefore, there is still work to be done. More specific focused researched in terms of filling knowledge gaps and informing policy must be explored from the validated points. The challenge is to look at these five areas in terms of larger research themes and see what is the relationship between them and what research questions may link them together. This is the challenge for the consultants in the next scope of work.

#### **Susan Joekes – IDRC representative**

The next step is to think how to move forward thinking in terms of programmes and priorities as the basis to commission and support research. There has been a lot of discussion on databases and

the lack of coordination. Whether IDRC has a comparative advantage in linking this is unknown at this point. Some suggestions have been made that IDRC has a comparative advantage in micro data and micro analysis, but elements within Egypt also have this capability, which may better place IDRC in a position of support.

It might be good to think about policy interventions and measures and then think about outcomes in terms of food, impact on households, production, etc., while being aware of the multiplicity of these elements and not in isolation. Per what is consumed and produced locally, perhaps there could be more research around locally produced and consumed food. Looking at the value change in a vertical lens is not enough, rather a horizontal view which may provide explanations for patterns of behaviour and more clarity in an analytical sense.

**Adam Taylor-Awny – IDRC consultant**

Research moving forward will invariably touch on subsidies in some capacity. From the discussion and with individuals and organizations, it seems that the issue of household level consumption is important. Many different players (INGOs, government players, research institutions, etc.) are interested in how pricing has changed people's coping mechanisms. The next stage is to prioritize, what is the mode of intervention.

**Dyaa Abdou – IDRC consultant**

Within the scoping study, programmes have been developed to deal with poverty and sustainable agriculture. The question remains, how to deal with changes in the international market. Research is still needed on both short and long run issues/implications. The team followed specific guiding principles to ensure multidisciplinary approach and to avoid overlaps with work being initiated by other partners in development and to ensure supporting and complementing existing work. The team attempted to have interrelated components to avoid the shortcomings of isolated and piecemeal approach. Also, we ensured that research must be combined with capacity building and institution building. Although not specifically the task, it is necessary to build institutional capacities for the sake of poverty alleviation.

**Heba Handoussa – IDRC consultant**

It might be more useful to exclude the new lands (e.g. from 20-30 years ago) and rather concentrate on the old lands with the bulk of poor farmers. It is important to keep in mind how to merge all the particular elements from all the presentations and make them policy relevant, including how to have better responses to the demand and supply side of the markets. There needs to be even more collaboration of institutions and identifying these institutions. To make a difference relevant and accurate data and data collection must be identified or created. A constraint on solid research is the number of capable people able to do good research on particular fronts, e.g. ICT, information flow to small farmers, etc. There seems to be a consensus with the audience about extension services and cooperatives.

## Annex V Review of Food Subsidies in Egypt

### 1.1. Egypt's unique safety net

As stated the food subsidy is one of several safety net programmes in Egypt, which together aim at poverty alleviation. The others involve subsidies on basic social services such as water, electricity, fuel, transport, health care and education, direct transfers and the Social Fund for Development. Together, all of these account for a large portion of GDP. However, based on the vast majority of literature, the efficiency of the programme is relatively low, whole administrative costs are considered very high.

The World Bank in 2005 noted that “Reform of the safety net is important for three related reasons. First, the programme elements often don’t reach the poor and the benefits are too small to provide meaningful assistance. Second, taken together the programmes are very expensive when subsidies are considered. And third, the programmes are inefficient, with overlapping beneficiaries and objectives.”<sup>27</sup>

The Vulnerability and Food Subsidy Study (WFP 2005) adds to the World Banks criticisms that, the mix of commodities supplied by the food subsidies is not tailored to the geographical and socio-economic differences that exist in Egypt. In addition, the mix does not take nutrition and health considerations into account. Third, the supervision of the programme is not adequate to prevent leakage and diversion of commodities.

The World Bank further notes that even those poor and vulnerable households who benefit from the food subsidies receive amounts that are insufficient to raise them out of poverty. They estimate that the poverty-reduction impact of food subsidies is small and that only 5 percent of the population is lifted out of poverty as a result of transfers through subsidies. The principle reason for the low impact of food subsidies is that the size of the transfer is small. On average, a poor person receives the equivalent of LE9 per month through the food subsidies, accounting for only 8 percent of total consumption expenditure. Baladi bread accounts for slightly more than half of the food-subsidy transfer received by the poor.<sup>28</sup> This fact strengthens the argument for the need to rationalise the expenditure on food subsidies targeting directly at the poor so that an increase in the actual subsidy received becomes a possibility.

In the medium term, given the various factors that contribute to the economic vulnerability of Egyptian households, social protection measures involving food inputs will be needed to prevent a large number of poor households from becoming food and nutrition insecure. The Ministry of Social Solidarity has recognized that it is necessary for the GOE to revamp its existing food subsidy programme, in particular the Ration Card system, to make it more effective and efficient.

Currently the government is seeking other ways to reduce the subsidy costs without jeopardizing the welfare of the poor. The Government is exploring a number of different approaches to improve the system. Most notably is the piloting of the “smart card” which is an attempt at using ICT to reduce leakage as well as possibly create synergy between pensions, cash transfers and food commodity subsidies.

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<sup>27</sup> World Bank 2005 “Egypt toward a more effective Social Policy Subsidies and Social Safety Net.”

<sup>28</sup> The benefits received from purchases of subsidized wheat flour directly by households are very small (as measured by the budget allocation) and are unlikely to raise a significant percent of households out of poverty.



Egypt's established food subsidy system has a unique configuration of open-minded, implicit and quota-based subsidies. The system has cushioned the effect of the food price rises on the poor. Whilst the percentage of people below the poverty line increased by at least three percentage points<sup>29</sup> as a direct result of the food price rises, this would have been far more dramatic if there had not been a food subsidy system in place.

The food subsidy is one of the three "safety net" programmes in Egypt, which together aim at poverty alleviation. The other two are direct cash transfers, and the Social Fund for Development (SFD). Together, all three accounted for about 2% of GDP. The food subsidy is the largest of the three, accounting for about 1.5% of GDP in 1999.

Although the majority of Egypt's expenditure on implicit and explicit subsidies is for non-food items such as energy and irrigation water. This research concept will focus on food subsidies under the umbrella topic of food security. While it is acknowledged that non-food subsidies do have an impact on food security in Egypt, it has been decided to limit the scope to food subsidies as a sufficiently large area with immediate, considerable and direct impact on food security in Egypt.

The provision of food subsidies in Egypt is a powerful symbol of the broader social contract between the government and the population in a political system where political participation is highly limited; the government in part maintains its legitimacy by providing affordable goods and services to the population. As a result, food subsidies are perceived to be important in promoting political stability.

The substantial increase in the price of goods and services that account for the bulk of expenditures by lower income groups threatens to bring a large increase in national poverty rates. What is worse, this increase in poverty is not transitory. It is here to stay. Therefore efficient and well targeted food subsidies that halt price increases from passing on to poor consumers is a major priority.

## **1.2. History of the food subsidy programme in Egypt**

Egypt's food subsidy programmes have been an important source of food security for a large portion of the population. Implemented since World War II as a means of providing basic food to all Egyptians, the food subsidy system is credited with assuring the availability of affordable staples to the population and helping to reduce infant mortality and malnutrition. However, it has also been estimated based on 1997 data that, notwithstanding the availability of subsidized food, about 15 percent of the population may be consuming less than the minimum requirement of calories.<sup>30</sup> It is quite likely that the food insecurity situation has deteriorated due to recent economic downturn, increased unemployment and price increases.

The GOE's expenditure on the food subsidy programme increased over a decade from LE 3 million in 1970/71 to LE 1.4 billion in 1980/81. In response to the 1997 riots the GOE responded by expanding the food subsidy programme, including extending flour warehouses to rural areas, whereas before that they were in urban areas only. By the late 1970s, in an attempt to curtail the costs of the system the GOE limited the subsidy programme to four basic commodities:

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<sup>29</sup> UNDP 2008 "Food Security, Poverty and Agriculture in Arab countries: Facts challenges and policy considerations"

<sup>30</sup> World Food Programme Country Office Egypt, "World Food Programme Activities in Egypt" (April 2004). The estimate pertains to 1997 and the calorie threshold used was 2100 calories/per day/per person, the recommended requirement under emergency conditions.

subsidized baladi bread, wheat flour, cooking oil, and sugar<sup>31</sup>. Baladi bread and wheat flour accounted for about 77% of the subsidy in 1997. Starting in 1989, the programme stopped registration of new-borns on the ration cards. At that time there were about 40 million people registered on about 10 million cards. The intention was to phase out the ration card system through attrition.

In 2000, to counteract the negative impact of the devaluation, the GOE expanded food subsidies by placing additional items in the ration system as a short term measure to reduce the hardship for low-income citizens. The Government increased the 2003-2004 budget by L.E. 1.6 billion to finance this larger subsidy programme. In 2004-2005, the total food subsidy cost is estimated to be L.E. 11.8 billion of which the ration card subsidy system is expected to cost L.E. 4.2 billion and the bread subsidy L.E. 7.6 billion. This represents a 300 percent rise in food subsidy costs from 1997.

By 2007, because of the freeze in ration card registration and due to deaths, the number of people registered on ration cards had fallen to about 38.5 million. However, in 2008, to counteract the more recent rise in food prices in 2006/7 more items and more quantities were added to the rations as well as opening the door to registration of those born in the period between 1989 – 2005. This increased the number of people added to the ration card by about 23 million people bringing the total number of people registered on ration cards to nearly 63 million. In recognition that there are many poor people who still do not have access to ration cards the MoSS is aiming to register another 3-4 million people (about 700,000 households) who were previously unregistered.<sup>32</sup> According to the Ministry of Social Solidarity, this year the cost of subsidies will be about LE 17 billion on bread and LE 9 billion for other food subsidies.

### 1.3. Poor targeting of the food subsidies

It is important to examine the allocation patterns of the system and how the poor benefit from the system. Studies based on the EHS indicate that the majority of Egyptian households have ration cards, estimated at 82.9% of Egyptian families. About 72.3% of households have the high-subsidy card, 10.6% low-subsidy cardholders, and 17.1% have no ration cards, of which some are poor. The share of households holding ration cards is higher in rural than in urban areas. 11% and 16% of poorest and second poorest quintiles respectively do not hold ration cards. As further evidence of the poor targeting in the system, in their study on the food subsidy system in Egypt, Ahmed, Bouis, Gutner, & Lofgren<sup>33</sup> observe that poor targeting combined with leakage resulted in only one-third of the food subsidy reaching the poor. For the sugar and cooking oil subsidies, about 71% of households in the top 3 quintiles (non-poor) have the high subsidy cards, receiving about 62% of the subsidized commodities. About 10% poor households hold the low-subsidy cards, and about 14% of poor households have no card. The pattern of distribution of the food subsidy points to a strong urban bias in the programme, both in terms of average per capita monthly benefits, and in allocation of the subsidy.<sup>34</sup>

By governorate, Cairo receives preferential treatment in allocation, but otherwise the allocation to the different governorates is made in accordance with population distribution, except for

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<sup>31</sup> The subsidized bread and wheat flour are available universally, whereas the sugar and cooking oil are rationed on a monthly basis through the card.

<sup>32</sup> Information in this paragraph came from an interview at the Ministry of Social Solidarity and is backed by the literature review.

<sup>33</sup> Ahmed, Akhter U., Howarth E. Bouis, Tamar Gutner, and Hans Lofgren. (2001). *The Egyptian Food Subsidy System: Structure, Performance, and Options for Reform*. Research Report 119. Washington, D.C.: IFPRI. and Ahmed, Akhter U., and Howarth E. Bouis. (May 2002). *Weighing What's Practical: Proxy Means Tests for Targeting Food Subsidies in Egypt*. FCND Discussion Paper no. 132. Washington, D.C.: IFPRI.

<sup>34</sup> Literature Review on Food Security and Vulnerability in Egypt

Dakahlia, Sharkia, Kafr El- Sheikh and Beheira where the share of the subsidy is less than population share. Thus, though the food subsidy system has an income benefit to the poor, its system of allocations points to political concerns overtaking equity concerns as the allocation of the programme does not match the poverty profile of the country. Another important point to consider with regard to the income benefit of the subsidy to the poor is that because there is leakage of subsidized commodities to the open market, intermediaries charge higher prices on the subsidized goods (Galal 2003)<sup>35</sup>, thereby adding to the burdens of the poor.<sup>36</sup>

#### 1.4. Access to nutritious food

Food and nutritional insecurity issues in Egypt are largely related to issues of food access and utilization; that is, having enough income to buy adequate and nutritious food and access to potable water and a healthy and sanitary environment. The ‘shock’ that characterizes most contemporary food security concerns in Egypt is economic, with household income being diminished by inflation, devaluation of the Egyptian Pound, high unemployment, low wages and low producer prices and high food prices. The evidence of food access problems is clear in the poverty literature and has driven much of the rationale behind the food subsidy programme. The underlying problems associated with food utilization are harder to understand, but appear to be related to inadequate infrastructure for potable water, sewage and waste disposal. Malnutrition rates of children under five in certain localities (and within certain livelihood groups) suggests, however, that a number of factors are contributing to nutritional security problems, and the factors may well be location and/or livelihood group specific.

School feeding programmes are an important preventive action that can reach the vulnerable age group and have been identified by the Rome Food Summit (June 2008) as a strategy in their action plan. Research support is needed to rapidly assess current programmes and propose cost efficient models for school feeding programmes adapted to the different contexts and conditions revealed by the rapid assessment. Means for reducing dependence on external food aid for the national school feeding programme, a condition sine non qua for sustainability of a national school feeding programme, are identified. The research is expected to make proposals for utilization of local food resources in a decentralized system for management of school feeding, identifying options for cost sharing if and when applicable, and giving due attention to food safety concerns. The above can contribute to maintaining continuity of the programme and to valorisation of good local food habits, the cornerstone of food based nutrition education that accompanies school feeding programmes. [source: Dr. Habiba Hassan Wassef, focus group]

Research is also needed to update the old Food Based Dietary Guidelines (FBDG) produced in the nineties and which have since become not applicable. Though this is a limited and short research intervention, it is a recognized tool that is basic to any nutrition education programme to advise Egyptians on how to eat a balanced meal when their budgets are limited. While social protection programmes protect the poor and destitute, the FBDG are the tool with which the remaining segments of the population are protected from the onset of preventable nutrition related chronic diseases caused (in the short and long run) by the consumption of the unbalanced diets

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<sup>35</sup> Galal, Ahmed. (2003). *Social Expenditure And The Poor In Egypt*. Working Paper # 89. Cairo: ECES

<sup>36</sup> The distribution of ration cards illustrates that targeting is a problem. The difference in the percent of households that have ration cards does not vary significantly between the vulnerability categories. Seventy-five percent of the most vulnerable households have a card and over 70 percent of the least vulnerable households also have ration cards. At the same time, more of the least vulnerable households have full ration cards (82%) than the highest vulnerable households (78%). Thirty percent of those who have access to a card have completed secondary education or higher. Seventy percent of those with permanent employment also had access to a ration card. Only 50 percent of those engaged in casual employment had a card. Forty percent of the cards included deceased persons. Over half of the cards reside with non-registered persons, either handed down within families or secured by other means. Until this year new households have not been able to register for cards, distorting the demographics of card ownership.

associated with the rising food prices. The economic gains of this intervention are represented by the expected negative impact on the incidence of chronic non-communicable diseases resulting eventually in reduction in the cost of health care. [source: Dr. Habiba Hassan Wassef, focus group]

### **1.5. Inefficiency in delivery of subsidies**

The cost to deliver \$1's worth of benefit is very high by international comparisons and has risen in recent years. It is estimated that “to channel LE1 to the poor, the state spends LE3 on bread subsidies, LE 10 on sugar subsidies or LE 33 on cooking oil subsidies” (Loewe, Markus: date n/a). Even comparing the cost in Egypt today with the same programme in 1997 shows a decline in the efficiency with which the food-subsidy programme operates. There are two aspects to the inefficiency: the large amount of resources going to households that are not poor or vulnerable, and the large amount spent on distribution costs.

## Annex VI Terms of Reference

### **The food price crisis in Egypt - Exploring opportunities for a multi-program initiative**

#### **1. Background**

IDRC is a Canadian, publicly funded, multi-program funding agency with a mandate to support developing country researchers working on development problems of their own societies.

The Middle East and North Africa Regional Office of IDRC (MERO), located in Cairo, manages research and research capacity building projects across this region. MERO program staff is involved in a number of thematically organized programs such as information and communication technologies for development (ICT4D); environmental and natural resource management (ENRM); social and economic policy (SEP). Each program, in its own way, supports research that provides local solutions to address poverty and promote equitable and sustainable development.

The speed and intensity of world food and energy price rises over the past two years has taken many observers by surprise, and Egypt has been hard hit by the crisis. The rate of price increases may moderate for a while, but the balance of opinion is that the upward trend will continue. This is a shocking reminder of the precariousness of economic and social progress. Addressing the problem is a fundamental challenge to development practitioners and policymakers at all levels and it requires knowledge and evidence contributions from analysts and researchers working in widely different scientific traditions.

#### **2. The Assignment**

MERO wishes to engage three consultants to conduct a scoping study **to identify what, how, where and with whom IDRC can contribute to this area most effectively**. The scoping study is ultimately to guide MERO as it develops a multi-programme multi-disciplinary initiative on the crisis.

Drawing on secondary documents, and the knowledge and expertise of the consultants and their contacts, IDRC project partners, and key stakeholders from the policy, development and research fields, the study will use a strong multi-disciplinary approach and an acute social and gender lens to explain the political, economic and social vulnerability aspects of the crisis in Egypt, review the responses of other donors, identify key research questions, identify targets of opportunity for policy influence, and suggest priorities for IDRC intervention **(themes, topics, research questions and programming modalities: key research and policy institutions with whom to engage with, length of the program, structure, etc...)**

The consultants will also evaluate the need for, and usefulness of a workshop to bring together key stakeholders to validate the scoping study findings and its recommendations. The consultants would also articulate the objectives of this workshop and help frame the format, content and participants.

#### **3. Specific objectives**

The 6 objectives of the study would be to:

1. *Profile the food price crisis in Egypt over the past two years, covering the following aspects among others:*
  - distinguishing between international and national prices, describe the scale, character and apparent causes of food price rises in Egypt and the impact on access to food and nutrition as documented to date, especially, but not only, among the poorest and most disadvantaged segments of the population, notably women and children .
  - describe the coping mechanisms that may have been evoked at household and community level in response to food price rises, in respect of changes in both consumption and local food production.
  - describe the private (or informal) (i.e. non-legislated) support and adaptation mechanisms available to the population (whether at individual, household or community level, and including the activities of NGOs, charities and donors) that appear to have been activated in the recent period, and suggest what resource, organisational or other material constraints may limit their effectiveness currently and in the near term.
  - describe the policy instruments and structures of the state that currently provide support for consumption, with particular reference to food and other subsidies and social protection measures; consider their strengths and weaknesses; indicate the budgetary resources required for them to be maintained in the medium term, the impact on the public finances and how the government may decide to limit their scope in the light of their cost and cost effectiveness.
  - describe the level, trends and determinants of food supply in Egypt, consider the ability of the farming system to respond to changes in the level and composition of demand, trends in agricultural productivity and supply through imports, taking the projected impact of climate change on national and international supply into consideration.
2. *On the basis of the above analysis, provisionally identify the most “vulnerable” groups among the population, to which public policy efforts may need to be directed.*
3. *Identify key research questions of interest, and screen, rank and cluster sectoral priority questions from a multidisciplinary perspective.*
4. *Identify key areas and targets for policy influence .*
5. *Identify preferred options for effective response from IDRC to the crisis, in the context of IDRC’s research and capacity development mandate, including which key research organizations to best work with, potential programming modalities (one large project, a number of small projects, length of project, etc..)*
6. *Evaluate the need for and usefulness of a validation workshop, and propose the objectives, format, content and participants for such a workshop.*

#### 4. Activities

The study will rely on key informant interviews and secondary data rather than primary data sources and field work. **A team of three consultants with complementary expertise will work jointly and with IDRC to:**

- Develop a workplan and timeline for this work and submit to IDRC for approval.
- Collect and review relevant information from relevant government and non-governmental institutions;
- Conduct interviews with key stakeholders;
- Hold monthly meetings with IDRC Regional Director and Program Staff to evaluate progress;
- Analysis and treatment of data;
- Prepare draft report;
- Write final report to include MERO recommendations.

## 5. Outputs

The consultants will submit to IDRC two outputs:

- At the beginning of the consultancy, the consultants shall present a detailed workplan with a time line, indicating how and when the team will meet and conduct the various pieces of work, including roles and responsibilities of each consultant.
- At the end of the consultancy, the consultants shall present an interim report explaining the nature and actual and prospective impact of the food price crisis in Egypt, taking into account the elements suggested above in Section 3; describing the methods used to compile the report, and identifying and assessing the most effective options for MERO to **fill research gaps and influence policy and** practise to reduce the vulnerability of poor Egyptians to food insecurity through multidisciplinary research. This interim report would present details on:
  - Interactions between policies for social protection and food supply and for management of the economy, including fiscal and industrial policies and **provide a comprehensive picture of the extent of the problem, policies for social protection and food supply and for management of the economy, and current response programs)**
  - Priority multidisciplinary research questions for strengthening policy and household coping strategies in the medium term
  - Opportunities and targets for a research program to influence policy, in terms of key stakeholders and initiatives
  - Opportunities for MERO to collaborate with other donors and international organizations to coordinate responses to the food crisis
  - Pros and cons of different programming frameworks to advance multidisciplinary research in this area including key institutions with whom to engage with at the research and policy level, length of the program, structure, etc...)
- Evaluation of potential for a validation workshop, with proposed objectives, format, content and participant list.
- The consultants will submit a final report within one month of receiving MERO comments on the interim report.

## 6. Duration and remuneration

The study will be completed by **December 31<sup>st</sup> 2008**, and is expected to call on 33 (**30**) days of the consultant's time during that period.

#### 7. Cost

The allowable costs include travel, per diems and honorariums within Egypt, unless agreed otherwise in advance with IDRC, and research and coordination assistance.

#### 8. Qualifications Sought

##### **One expert in Economics and Public Finance (Team Leader)**

- Advanced university degree (Doctorate or Masters) in the social sciences
- Minimum of ten years experience in research and/or public sector management in a relevant field (e.g. economics, public finance, trade policy, etc)
- Demonstrated familiarity with issues of subsidy policy in Egypt
- Demonstrated expertise in economic analysis and political economic issues
- Fluent in English and Arabic, with strong written and oral communication skills

##### **One expert in Food Policy and Supply**

- Advanced university degree (Doctorate or Masters) in the social or natural sciences
- Minimum of ten years experience in research and/or public sector management in a relevant field (e.g. agriculture, agricultural policy, food policy, rural development, environmental economics)
- Demonstrated familiarity with issues of food policy in Egypt
- Demonstrated expertise in economic analysis and political economic issues
- Fluent in English and Arabic, with strong written and oral communication skills

##### **One expert in Social Protection**

- Advanced university degree (Doctorate or Masters) in the social or natural sciences
- Minimum of ten years experience in research and/or public sector management in a relevant field (e.g. rural development, social protection, social development, agriculture)
- Demonstrated familiarity with issues of social protection in Egypt
- Demonstrated expertise in analysis of social vulnerability
- Fluent in English and Arabic, with strong written and oral communication skills



## Annex VII Author Bios

Prof. Heba Handoussa is currently Lead Author of the Egypt Human Development Report (EHDR) 2009, the theme of which is Egypt's Youth. She was also Director and Lead Author of the previous three EHDRs. Previously, and for ten years, she was Managing Director of the Economic Research Forum for the Arab Countries, Iran and Turkey (ERF). In 2006, she served as Research Director of the regional Gender Economic Research and Policy Analysis (GERPA) initiative. Prof. Handoussa has taught at the American University in Cairo, where she was twice elected chairperson of the Economics and Political Science Department and subsequently appointed Vice Provost.

Dyaa K. Abdou, Senior Agricultural Economist and Policy Advisor, received his Ph.D. from Iowa State University, USA in Economics in 1975, and has vast experience in the Near East and Central Asia Regions. Dr. Abdou worked for the Food and Agriculture Organization (FAO) of the United Nations for many years. He has held senior posts in Sudan, Rome, and Cairo. His last post was Chief of the Agricultural Policy Assistance Branch, FAO Regional Office for the Near East, Cairo Egypt. Dr. Abdou has led several multidisciplinary missions for supporting the preparation of sustainable agricultural and rural development strategies and sector related policy advice in almost all countries of the Near east and Central Asia.

Adam Taylor-Awny received his MSC "Social Policy and Planning in Developing Countries" from the London School of Economics in 1998. For the past fifteen years, Mr. Taylor-Awny has been working in the field of social development both internationally and in Egypt with INGOS and UN organizations. Over the last five years Mr. Taylor-Awny has been Deputy Director, of CARE International in the Yemen Country Office, and then in the CARE Vietnam Country Office. Mr Taylor-Awny is currently based in Cairo as a freelance consultant.