

# Organic agriculture for Iraq: a SWOT analysis exercise

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## Introduction

For centuries Iraq has been a net food exporter, thanks to its abundance of water and land, with a relatively small population. After WWII and independence, oil revenues were invested also for a massive modernization of its agro-industrial complex, with capital intensive initiatives and the introduction of modern inputs and the expansion of irrigation (Schnepf 2003). Unfortunately, the simultaneous population growth, the massive urbanization and the last three decades of continuous warfare and domestic turmoil have determined an ever increasing recourse to food imports. During the last years of the conflict with Iran, and during the most recent period, many producers were almost obliged to abandon input intensive production systems and they had to retrieve traditional methods and to rely on local inputs.

Nowadays, there is a strong debate about which direction should Iraqi agriculture take, for its revival and for contributing to national wellbeing, taking also into account the growing competition for water and the challenges due to climate change.

Among Iraqi experts, international consultants and even within the Iraqi population, there is a growing awareness about the pollution problems caused by the misuse of chemicals (Bashur 2008), while the cost of many imported inputs makes them unaffordable for most small farmers. On one hand, there are strong forces pushing for a westernized type of intensive farming, based on all possible inputs, similar to the green revolution (USAID 2006), but on the other hand there are also those who suggest various forms of low ex-

## Abstract

*The reconstruction of the Iraqi agro-food sector has happened with the post conflict decisions largely taken by the Provisional Government, without much involvement of local stake-holders. As a matter of fact, even the Ministry of Agriculture (MoA) was largely understaffed and many experienced people had left the country. Presently, Iraqi institutions are becoming stronger and it is possible to imagine a more participatory approach to policy design. Organic agriculture, for several reasons, is one of the likely options, but it needs to be framed within a comprehensive agricultural policy. For this purpose, a SWOT analysis has been conducted with a group of Iraqi MoA officers attending a training program in Italy. Organic agriculture is confirmed as an option for development, but there is a long list of threats which might affect the whole Iraqi agriculture.*

**Keywords:** Iraq, Expert Consultation, Agricultural policy.

ternal inputs agriculture (Bishay 2003, Thomas 2008) and even organic agriculture, at least for some areas of the country and for some products and markets (Mahmoudi et al. 2008).

## Material and Methods

This paper is based on an in-depth desk study performed during the months October 2008 through January 2009 and on a successive expert consultation

held at IAM Bari. The research project included two more expert consultations, but this was not accomplished, because the experts' arrival to Italy was postponed. A third phase of study has been performed in August 2009 in Baghdad.

The desk study has allowed the Authors to elaborate a detailed picture of the recent evolution and present status of the agro-food system in Iraq and to develop a tentative SWOT analysis, which was then submitted to a group of 11 experts in March 2009. This analysis allows to list and compare Strengths and Weaknesses (internal conditions) versus Opportunities and Threats (external conditions). These Iraqi officers, from different Departments of the Ministry of Agriculture, were initially briefed about organic agriculture (concepts, technicalities, markets, situation worldwide) and they were then asked to analyse the tentative SWOT elaborated by the Authors. The group suggested several modifications, which were incorporated into a second version of the SWOT analysis. These experts were then invited to express their opinion on each item (total disagreement, disagreement, agreement, total agreement), that was then transformed into scores (respectively -4, -2, 2 and 4). The scores attributed by each participant were summed up and the average for the whole group has been calculated. Thanks to this procedure (scoring), the various elements have been ranked and this order has been subject to a final round of discussion.

In August 2009, during a visit to Baghdad by one of the Authors, the outcome of the experts' consultation has been

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discussed with other interested parties, who have largely confirmed the SWOT analysis performed in Bari.

## Results

Tables 1-4 show in the first two columns the progress of the SWOT analysis (*listing*) and in the third column the average score received by each item (*scoring*). The order reflects the *ranking*, as indicated by the experts in Bari.

Tentative Strengths	Finalized Strengths	Score
Natural resources	Richness natural resources	3.82
	Richness in biodiversity	3.45
3R Plan for Iraq	3R Plan for Iraq	3.09
Geographical location	Strategic geographical location	2.73
PM initiative in agriculture	Government initiative in agriculture	2.00
Minister personal engagement	MoA's commitment	0.91
High officers' concerns	High officers' concerns	0.91

The group of Iraqi experts has introduced some modifications (see second column) and added some items in all four aspects of the SWOT analysis which had been elaborated by the Authors.

Tentative Weaknesses	Finalized Weaknesses	Score
Salinity	Salinity	3.45
Desertification	Desertification	3.45
International water agreements	Lack of international agreements	3.27
Corruption	Corruption	3.09
Infrastructures	Poor infrastructures (roads, electricity)	2.91
Professional extension system	Poor extension system	2.91
GIS	No GIS	2.91
Pollution	Pollution	2.91
Technical knowledge	Serious gaps about new techniques	2.73
Seed banks	Devastated seed banks	2.73
Subsidies	Inadequate rules for subsidies	2.55
Overlapping	Institutional overlapping	2.36
	Migration of experts	2.18
Decentralization	Low decentralization	2.00
	Lack of comprehensive analysis in some parts of the country	2.00
	Lack of long term agricultural strategy	1.82
Education	Poor educational system	1.82
	Lack of local information sources for agriculture	1.64

## Discussion

Amongst the strengths of Iraqi agriculture (Table 1), the richness of natural resources and of biodiversity almost receive a consensus, followed by the strength represented by the 3R Plan for Iraq “Rehabilitation, Reconstruction, Renovation”. It must be noticed, however, that also the first three weaknesses refer to natural resources: salinity of soils, desertification and likely problems with Turkey and Syria over the water of the rivers Tigris and Euphrates flowing from these countries. In the list of strengths, there are various mentions to the commitment of high level individuals and of the whole MoA, but in Table 2 there are several weaknesses that might affect their impact: corruption, poor extension system, institutional overlapping, and emigration of experts.

Some experts are particularly sensitive towards the quality of human resources, both in the field as farmers and

within the administration; beside the poor quality of the advisory service and the emigration of qualified personnel, a poor educational system and a generalized lack of local information sources for agriculture contribute to determine a gap between what is practiced by the farmers and what could be needed and implemented.

Within this group of experts, there are a few who consider that the 3R Plan for Iraq is not sufficiently good for agriculture, that the subsidies are not properly targeted, that decentralization could be improved and that the long term strategy for agriculture still needs to be properly defined.

When we move on and we analyse the opportunities (Table 3) which might stimulate the growth of Iraqi agriculture, the experts reveal their absolute need for exposing their people to what has been happening in the outside world. More than 30 years of continuous conflict and a very strong regime have kept the Iraqi scientists and technicians almost isolated from the scientific development taking place in other countries. Consequently, training abroad appears the no. 1 opportunity. Other opportunities are offered by the many programs and projects taking place in different parts of the country.

Tentative Opportunities	Finalized Opportunities	Score
Twinning with foreign research centres	Opportunities for training abroad	3.27
Viable research	Desalinization and De-desertification program	2.73
Agro-ecological zones		
Global approaches	Specific agricultural development projects in various parts of the country	2.73
Chemical wastes and sanitation systems		
National, regional and international NGOs		
Vital linkages with international movements, agencies and organizations	Involvement of Donors, international organizations and NGOS for the future of Iraqi agriculture	2.55
Constant access for Iraq to global activities		
ISO standards implementation	ISO office in Baghdad	2.55
Organic agriculture	Organic agriculture	2.36
Electronic Government	EG funded by foreign companies	2.36
Foreign investments	Foreign companies investing in agricultural infrastructures.	2.18

Organic agriculture ranks 6<sup>th</sup>, after the involvement of international agencies and after the opening in Baghdad of the ISO office. As a matter of fact, the organic option, although appealing, is not considered very feasible over the whole country, for several reasons, listed in Table 4.

The first threat to agricultural development appears to be the continuous reliance on the revenues from oil, which diverts the attention of the policy makers and of much Iraqi population from the need for a sound and balanced development, based on many economic sectors. The lack of water, due to growing urban demand, decreasing rainfall and to likely problems with neighbouring countries, is perceived as the second most relevant threat.

Other threats are of technical nature: this group of Iraqi experts thinks that in this last period, after the fall of the previous regime, foreign multi-national companies have inundated the country with agro-chemicals and seeds, even with GMOs. These experts, and the ones interviewed in Au-

Table 4 - *SWOT Analysis – Threats.*

Tentative Threats	Finalized Threats	Score
Iraqi strategies rely on oil	Heavy reliance on oil	3.09
Regional water scarcity	Regional water scarcity	2.73
Bio-security	Widespread diffusion of agro-chemicals	2.55
Investment law	Prolonged lack of adequate investment law	2.36
Border control	Ineffective border control	2.55
Bio-security	Domination of foreign seed companies	2.00
	Widespread diffusion of GMOs	0.91

gust in Baghdad, fear that Iraq has been to some extent “technologically” invaded, not for the benefit of the country, but for increasing the profits of these foreign input providers; the Iraqi experts also fear that, due to the poor situation of the research and extension system, this dependence might last for a long period and it consequently could hamper the prospects for a sustainable agricultural development – organic agriculture included.

## Conclusions

This exercise in situation assessment for policy elaboration has relied on the consultation of both documents and people to assemble evidence (Bardach 2009). Although incomplete because of the postponed arrival of two more groups of Iraqi experts to Italy, it allows elaborating several conclusions. Some conclusions refer to the methodology, while other ones to the outcome of the exercise.

First of all, the SWOT methodology has allowed incorporating into the study reflections about both the intrinsic characteristics of Iraqi agriculture and the determining factors in the country and the global environment affecting the sector’s future development. The participatory use of the tool, firstly through the direct involvement of country experts in an action-oriented discussion in Italy and, in a second phase during the fieldwork in Iraq, has contributed to enhance the credibility of the findings (Start and Hovland 2004).

The SWOT analysis, as implemented during the study, confirms its power for participatory assessment and for consensus building, which are two main relevant aspects for any democratic formulation of development policies. The process has shown that a tentative SWOT list needs to be properly explained to the participants and their suggestions must be incorporated into a final SWOT. In our case, there were also linguistic (English – Arabic) and semantic problems, due to the very different backgrounds and life-long experiences of the participants. Each single word and concept need to be properly explained and clarified, until a shared meaning is achieved.

Some confusion has remained when defining Strengths and Weaknesses versus Opportunities and Threats as clearly indicated by the natural resource “water”. Water is mentioned as Strength, due to its relative abundance in some parts of the country, as Weakness, because of its salinity and the absence of proper international treaties, and as Threat, because of the regional water scarcity. Water, in this part of the world, is surely the most limiting factor for any agricultural development and it requires a major attention.

Several Weaknesses and Threats refer to the inadequate agricultural knowledge systems, to the poor conditions of much administration and to the consequent problems generated by such situation. Like for water, a major attention should be devoted to capacity building in the public sector, by investing in structures, infrastructures and for the improvement of the human resources.

Last but not least, organic agriculture has been recognized by the experts as an interesting option, but its diffusion in Iraq will require time and an integrated approach, to cover all aspects mentioned before: applied research and extension, good administration and appropriate legislation, well defined subsidies and targeted investments, cooperation with foreign firms and NGOs, etc.

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