Food Security Zones of Iraq

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At the World Food Summit of 1996, member states of the United Nations committed themselves to eradication of hunger. In 2017 this commitment was reiterated as the Zero Hunger Challenge under the Sustainable Development Goal 2 which aims to end hunger, achieve food security and improved nutrition and promote sustainable agriculture. This is consistent with the mission of the World Food Programme, for which eradication of hunger has long been a priority area. A first step towards this goal is an information base on food insecurity.

Zoning a country by food security contributes towards a better understanding of the problem. The food security zones of Iraq are based on production of cereals and livestock, population, wealth (ability to purchase food if available) and accessibility. The division takes into consideration the current land use, soils, topography, climate, industrial development (for wealth and income opportunities) and population density. A classification based on empirical evidence, along the four pillars of food security, offers a perspective beyond the traditional ethno-religious classification of Iraq. Districts of a zone bear common issues and common resolutions facilitating area specific policy formulation and programme design.

SURPLUS PRODUCTION BARANI AGRICULTURE
The breadbasket of Iraq. This zone includes the plains of Nainawa where more than 40 percent of Iraq’s cereals are produced. Annual wheat production per capita exceeds 400 kilograms. The zone has around 4.8 million people of which 1.5 million are poor. With a population density of medium, it receives medium-high levels of rainfall resulting in surplus food production. The zone includes Mosul city straddling the Tigris river. The zone includes districts of Nainawa, Dohuk and Erbil governorates such as Sinjar and Telefar in the west and Makhmur, Tilkaif, Erbil, Al-Shikhan and Shaqlawa east of the Tigris. Wheat is the main produce though the peri-urban areas of Mosul are known for high quality vegetable production. Wheat and bulgur are the main cereals consumed. Mosul, the second largest city of Iraq, is the source of urban livelihoods for its over two million population.

SURPLUS PRODUCTION IRRIGATED AGRICULTURE
This zone constitutes the main part of the fertile crescent known since antiquity for its agricultural production. The zone has eight million people of which 2.6 million are poor. Irrigated by the twin rivers of Tigris and Euphrates, it has medium density of population and receives medium rainfall. The zone includes the capital Baghdad. It includes districts with fertile irrigated lands of central governorates of Baghdad and Babylon and southern governorates Qadsiya, Thi-qar, Muthanna, Wasit and Maysan. Populations concentrate in the riverine areas where cereals (mainly wheat and rice) and vegetables are grown. Some corn is also produced, mainly in Babylon area. Vegetables grown in this zone allow Iraq to be self-sufficient in vegetable production though certain varieties are imported from neighbouring Iran and Turkey. Annual wheat production in the zone averages around 200 kilograms per capita. In addition to wheat, the zone is the largest producer of rice. Wheat and rice are the main cereals consumed.

SUFFICIENT PRODUCTION
This zone has about 12 million people of which 1.4 million are poor. It covers the whole governorate of Diyala and several districts of Salah al-deen, Baghdad, Kirkuk and Sulaimaniyah. The zone has high population density and medium-low intensity annual rainfall though rivers and agriculture benefit from precipitation on the mountains to the east across the border in Iran. Annual wheat production is around 180 kilograms per capita. Wheat and rice are the main cereals consumed.

MOUNTAIN AREA
This zone covers the snow clad mountains of northern Iraq. It has 2.6 million people of which 75,000 are poor. It includes districts of Dohuk such as Zakho and Al-Amedi bordering Turkey; northern districts of Erbil including Mergasur and Choman and Sulaimaniyah districts such as Khanaqin/S, Dokan, Halabja and Sharazur. Population density is medium. Receiving the highest rainfall in Iraq, the zone has the most vegetation. The area has extensive forests with high value products such as olives, honey and dry fruits. Wheat and bulgur are the main cereals consumed. Horticulture is predominant across the zone providing minerals in the average diet. Animal husbandry is popular with sheep and goats providing protein and dairy to the diet. Trade across the borders with Turkey and Iran is prevalent.

MARSHLANDS AND COASTAL AREAS
With low rainfall and high density population this zone covers the famous marshlands of Iraq which have recently been classified as World Heritage sites by UNESCO. The zone includes marsh areas of Thi-Qar and Maysan governorates as well as coastal areas of Basrah province. The two rivers Tigris and Euphrates converge at Al-Qurna in Basrah where the fresh river water joins saline sea water of Shatt Al-Arab waterway leading into the Persian gulf. The Basrah districts of Shatt Al-Arab, Fao, Abu Al-Khaseeb and Al-Qurna were renowned for their production of high quality Barhi dates. Draining of the marshlands and cutting of millions of palm trees decades ago affected the production and livelihoods of the almost three million inhabitants (600,000 poor). Tribal disputes over land have also affected production. Lower water levels in the rivers due to upstream dams has resulted in encroachment of sea water inland reducing area available for agriculture. This shift in water regime is resulting in the growth of shrimp farming industry.
## Food Security Zones of Iraq

### Data at a Glance

<table>
<thead>
<tr>
<th>Food Security Zone</th>
<th>Population</th>
<th>Area hectares</th>
<th>Number of Poor</th>
<th>Unemployed percentage</th>
<th>Wheat Production tonnes</th>
<th>Crop Area hectares</th>
<th>Metalled Roads km</th>
<th>Rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surplus Production Barani Agriculture</td>
<td>5,908,331</td>
<td>3,157,454</td>
<td>1,238,621</td>
<td>8</td>
<td>2,589,773</td>
<td>920,987</td>
<td>4,274</td>
<td>Medium High</td>
</tr>
<tr>
<td>Surplus Production Irrigated Agriculture</td>
<td>8,314,315</td>
<td>4,756,724</td>
<td>2,452,819</td>
<td>10</td>
<td>1,727,626</td>
<td>2,341,265</td>
<td>6,114</td>
<td>Medium</td>
</tr>
<tr>
<td>Sufficient Production</td>
<td>11,966,281</td>
<td>5,188,963</td>
<td>1,177,790</td>
<td>9</td>
<td>2,198,399</td>
<td>1,704,131</td>
<td>7,253</td>
<td>Medium Low</td>
</tr>
<tr>
<td>Mountain Area</td>
<td>2,390,930</td>
<td>2,206,213</td>
<td>103,091</td>
<td>12</td>
<td>699,813</td>
<td>1,130,875</td>
<td>1,188</td>
<td>High</td>
</tr>
<tr>
<td>Food Deficit Semi-Arid Rangelands</td>
<td>3,980,863</td>
<td>7,880,092</td>
<td>681,690</td>
<td>4</td>
<td>368,391</td>
<td>297,728</td>
<td>5,622</td>
<td>Low</td>
</tr>
<tr>
<td>Drought Prone Desert Area</td>
<td>2,696,214</td>
<td>19,611,081</td>
<td>492,953</td>
<td>12</td>
<td>324,332</td>
<td>272,017</td>
<td>6,244</td>
<td>Low</td>
</tr>
<tr>
<td>Marshlands and Coastal Areas</td>
<td>2,493,301</td>
<td>997,802</td>
<td>316,345</td>
<td>8</td>
<td>48,303</td>
<td>546,351</td>
<td>1,417</td>
<td>Low</td>
</tr>
<tr>
<td>Grand Total</td>
<td>37,750,235</td>
<td>43,798,329</td>
<td>6,463,308</td>
<td>9</td>
<td>7,956,637</td>
<td>7,213,355</td>
<td>32,111</td>
<td>-</td>
</tr>
</tbody>
</table>
Food, Poverty and Malnutrition in Iraq

Iraq is an oil rich middle income country affected by protracted conflict, massive displacement and disruption of public services. In March 2018, the government estimated the poverty rate to be 22.5 percent. According to the Comprehensive Food Security and Vulnerability Analysis conducted by WFP and the Government of Iraq, while food insecurity is low at 2.1 percent, over 50 percent of the population is vulnerable to food insecurity. A large portion of the population could become food insecure with the onset of a shock such as moderate food price increase. While malnutrition rates are low, obesity, especially in children, is of concern. Stunting is recorded at 16.6 percent and wasting is 7.5 percent though provinces such as Wasit, Thi-Qar, Basrah, Qadisiya and Salah al-deen record higher acute malnutrition. Although agriculture contributes a small portion of the GDP, around five percent, the majority of the poor live in rural areas relying on agriculture for their livelihoods and food security.

Efficiency in targeting and delivery of safety nets, reform of trade policies, nutrition awareness education and job creation, especially for youth and women, are key interventions required to improve food security in Iraq.

FOOD SECURITY
According to the definition adopted at the World Food Summit in 1996, food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Vulnerability refers to the full range of factors that place people at risk of becoming food insecure. The degree of vulnerability for an individual, household or group of persons is determined by their exposure to the risk factors and their ability to cope with or withstand stressful situations.

POVERTY
The poverty line in Iraq is derived from the cost of basic needs approach. It is defined as the level of food expenditure necessary for minimum caloric intake and non-food expenditure necessary to maintain a minimum acceptable standard of living.

POPULATION DENSITY
Population density of Iraq is approximately 1.1 persons per hectare. In the zone descriptions, low density areas are those with less than one person per hectare. Medium density refers to zones with populations between one and two persons per hectare. High density refers to populations in excess of two persons per hectare.

ANNUAL RAINFALL
The spatial pattern of average annual rainfall in Iraq closely conforms to the topography of the country; annual average rainfall varies from trace amounts in the arid lowland desert regions of the southwest to amounts above 500 mm in the northeast mountainous regions, reaching up to 900 mm around the peaks.

NOTES

INFORMATION IS DRAWN FROM:
Iraq Zero Hunger Strategic Review, WFP 2018
Iraq Comprehensive Food Security and Vulnerability Analysis, WFP 2016
Iraq Poverty Reduction Strategy, Government of Iraq, 2018
Global Land Cover, FAO 2013

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FOR ADDITIONAL WFP IRAQ VAMME PRODUCTS:
mVAM Reports:
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Market Bulletins:

Market Assessments:

Vulnerability Assessments: