

Food Consumption rates and habits, and agricultural practices in arid and semi-arid countries

Report of the IUR Task Group “Radioecology in
Arid Regions”

MODARIA Working Group 4

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Reviewed countries



Structure of report

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Factors affecting food consumption in arid countries

- The territory is defined as arid when the evaporation of moisture from its surface exceeds the amount of precipitation
- The influence of high temperatures, increased ultraviolet irradiation, significant diurnal temperature changes, dry air, severe wind regime affects the peculiarities of the energy balance of the indigenous population
- Lack or scarcity of water and high dryness of air lead to rapid dehydration of the body
- Physiological adaptation to acute dehydration in humans is not produced, and the main way to combat the lack of moisture remains the choice of behavioural strategies and types of nutrition that allow to save water.
- One of the optimal products in this situation is milk of domestic animals, which provides the body not only with water, but also with fats, carbohydrates and the most "high-grade" proteins.



Factors affecting food consumption in arid countries

1. Socio-cultural and economics environment
2. Urban/Rural differences
3. Geographical differences
4. Religious differences
5. Others



Socio-cultural and economics environment

- High-income countries: rise in the consumption of meat (from 12% in North Yemen to 97% in Jordan, 500% in Saudi Arabia during 1976 – 1980), milk, eggs and cereals
- Low-income countries: potatoes, bread, sugar and rice are the main source of energy
- Unequal income distribution within the population



Urban/Rural differences

- Urban: transformation in food consumption patterns, modern cooking
- Rural: traditional cooking
- Special groups: Nomads and Bedouins

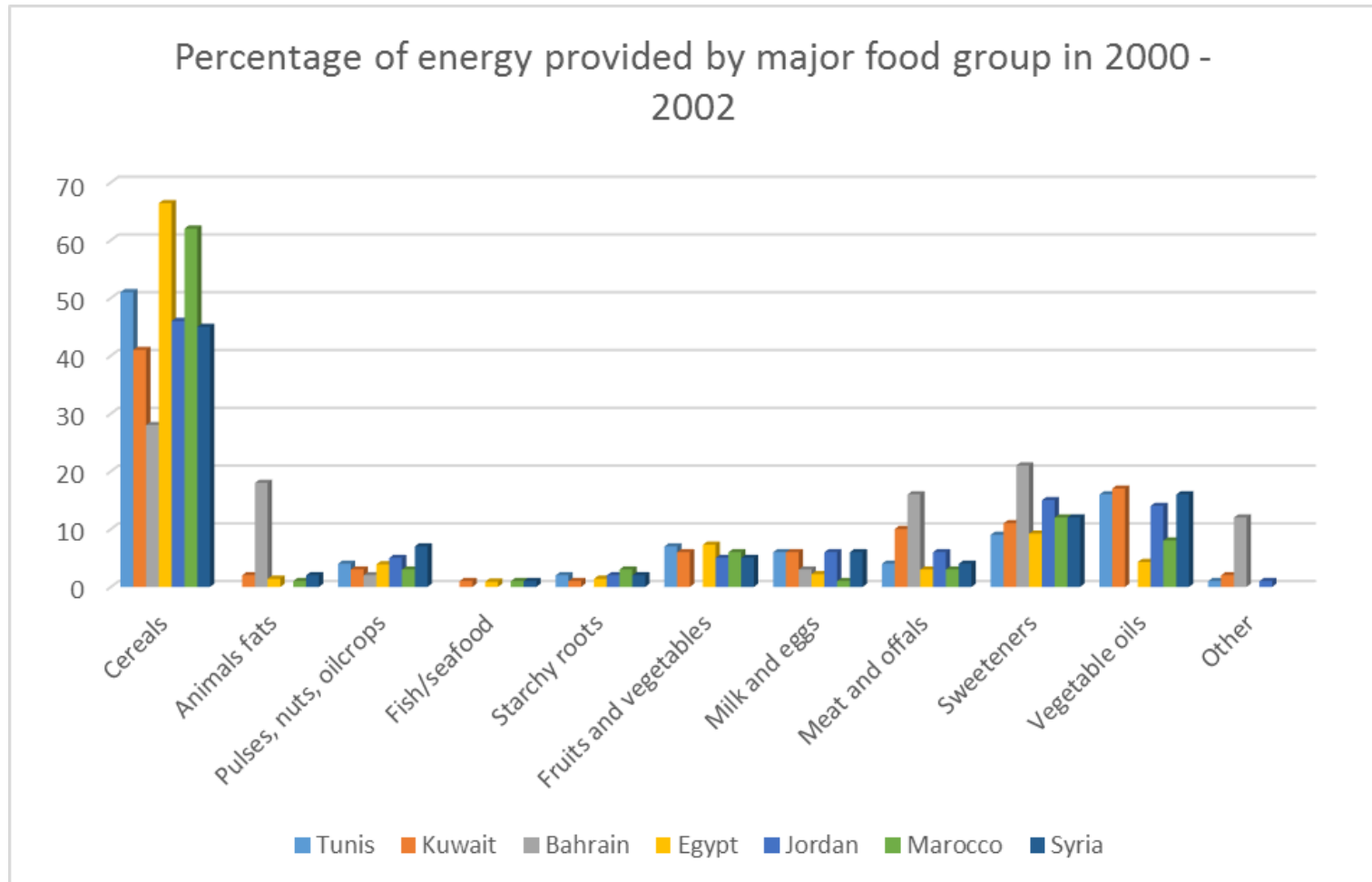


Geographical differences

- Desert: nomadic animal-breeding tribes; live mainly on cereals, dates, milk and milk products. Food consumption patterns differs from area to area based on the available food resources
- Settled nomads: cereals, pulses, vegetables, less milk and few milk products
- Arable Land: more vegetables and fruits
- Coastal areas: fish



Dietary habits of the people in the Arab world



Summary

- Concerning agricultural practices and food consumption habits it is rather difficult if not impossible to recommend general food consumption baskets. As outlined above different cultural and environmental factors influence living conditions in arid regions and consequently require also rapid adaptation. Therefore for any estimation of contamination via food chains the optimal approach is to use consumption data and agricultural practise data from questionnaires reflecting the actual situation. This will also enable to identify the critical and/or unusual pathways, which have to be considered in dose calculation models.

