Training Workshop on the use of the Food Security Monitoring Framework in the Arab Region

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Concept and Rationale behind the framework

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Concept and Rationale

The architecture of the monitoring framework, the selection of indicators and their allocation to specific determinants of food security was the outcome of a protracted consultative process involving:

-Background review of the literature

-Interaction with national focal points as well as experts versed on the issues of agriculture, food security and nutrition both independent or from international and regional organizations.

Concept and Rationale

Framework design and indicator selection was guided by the following rationale:

-Food security is the outcome of a complex interaction between a large number of determinants; arranged into 4 pillars: Availability, Access, Utilization, Stability

- It is possible to identify the indicators that can explain most of the food security outcome while taking into consideration national and regional specificities

Concept and Rationale

→ Food security can be expressed as follows:

$$FSN = f[(AV_1,..., AV_6,..., AV_n);(AC_1,...AC_5,..., AC_n);(UT_1,...,UT_5,...,UT_n);(ST_1,...,ST_5,..., ST_n)]$$

There exist other determinants, but the cost effectiveness of including them is not justified by the additional information they may bring. Information about them may not be available, they may have limited impact, or they may have little importance in the specific regional or national context.

→ The determinants are quantitatively represented by indicators that are measurable and relevant, eg: Wheat as a staple crop and main source of calories

NB: *The relation between determinants is not fully elucidated. Food security is not the arithmetic sum of the different determinants or of their indicators. Hence the production of a national or regional food security index through the addition of the normalized scores calculated for each indicator was avoided.*

Process

The development of the framework together with the consultative process spanned over two years (2017-2019), with experts meetings, reviews and comments, until the framework was fully endorsed by the Executive Committee of the Arab Organization for Agriculture Development (AOAD) in march 2019.

Throughout the above process, the development of the framework followed a few key principles that were agreed upon with the various attending experts. The framework would:

➢Account for chronic food (in)security at the national level;

➢Cover the four determinants of food security (availability, access, utilization, stability);

➢Include household food security as a determinant of food security monitoring;

➢Provide ex-post as well as ex-ante information;

➢Be harmonized with the SDG reporting;

➢Be aligned with the regional policy priorities in food security;

➢Allow a degree of regional specificity.

Configuration and format

The four dimensions (or determinants or pillars) of food security are monitored using a proxy number of indicators ranging between 5-6.

→These indicators are selected to satisfy the conceptual aims of the framework and would be *ex-ante* indicators, or pillars indicators.

→At the top of these four pillars would be the core *ex-post* indicators or outcome indicators**.**
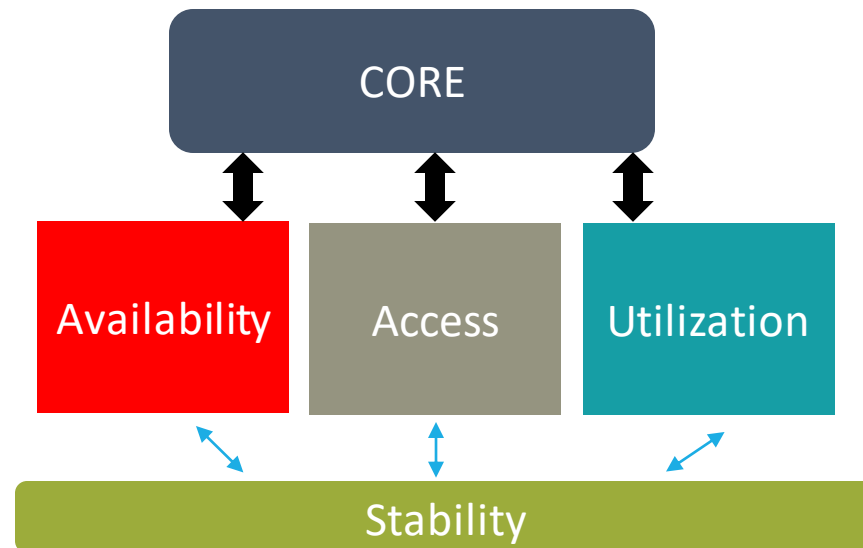
This architecture has the advantage of providing guidance for policy making in sectors associated with each of the different dimensions of food security.
Any change in policy in the precursor sectors should, given the appropriate amount of time, be reflected in the outcome indicators.
One limitation is that this is a black box system

Selected indicators

The selection of indicators was conducted according to the objective and target audience. The latter determines the scale at which information is collected. There is therefore no "best indicator" as the usefulness of an indicator depends on the purpose for which it is used

→ Target audience: policy makers

→ Scale: national

The following conditions were laid out for the selection of indicators in each food security dimension:

Compatibility with regional food security strategies in order to ensure relevance to current Arab policies	Alignment or overlap with SDG indicators and goals	Availability of metadata for a majority of Arab countries and for the bulk of the Arab population

Selected indicators

11 regional strategies covering cross-sectoral thematic issues impinging on food security, such as water, climate change, infrastructure, agriculture, and disaster risk reduction, were reviewed.

Twenty-eight indicators were extracted and compared with the list of SDG targets and indicators. Those indicators that intersected were included in a first selection list. Data was then collected from reliable sources for each of the identified indicators.

As a result, two issues emerged:

➢Unavailability of metadata for several SDG indicators (i.e. tier 3 indicators).

➢A substantial gap in data for countries of the Arab region for the majority of the selected indicators.

→ Consequently, alternative indicators had to be identified and filtered according to the following set criteria as related to the metadata :

Selected indicators

Act as substitutes to tier 3 SDG indicators, based on their scope	Be relevant to the Arab region's context (i.e. derived from regional strategies and/or priorities)	Be available from verified sources	Be available for at least 50% of the countries of the Arab region (i.e. 11 out of 22 Arab countries)	Be available for at least 50% of the population of the Arab region

Selected indicators

The result of this exercise was a relatively large number of indicators, covering the four dimensions of food security.

They were then cross-checked for overlap, validity and data availability on country basis for identification of data gaps

As a result, 24 indicators were retained, which are closely related to the SDGs, FAO Suite of Indicators and selected other global and regional plans of actions:

 3 indicators in the **Core pillar** of which 2 are direct SDGs indicators and the 3rd closely related

6 indicators in the **Availability pillar** of which 3 are direct SDGs indicators or closely related

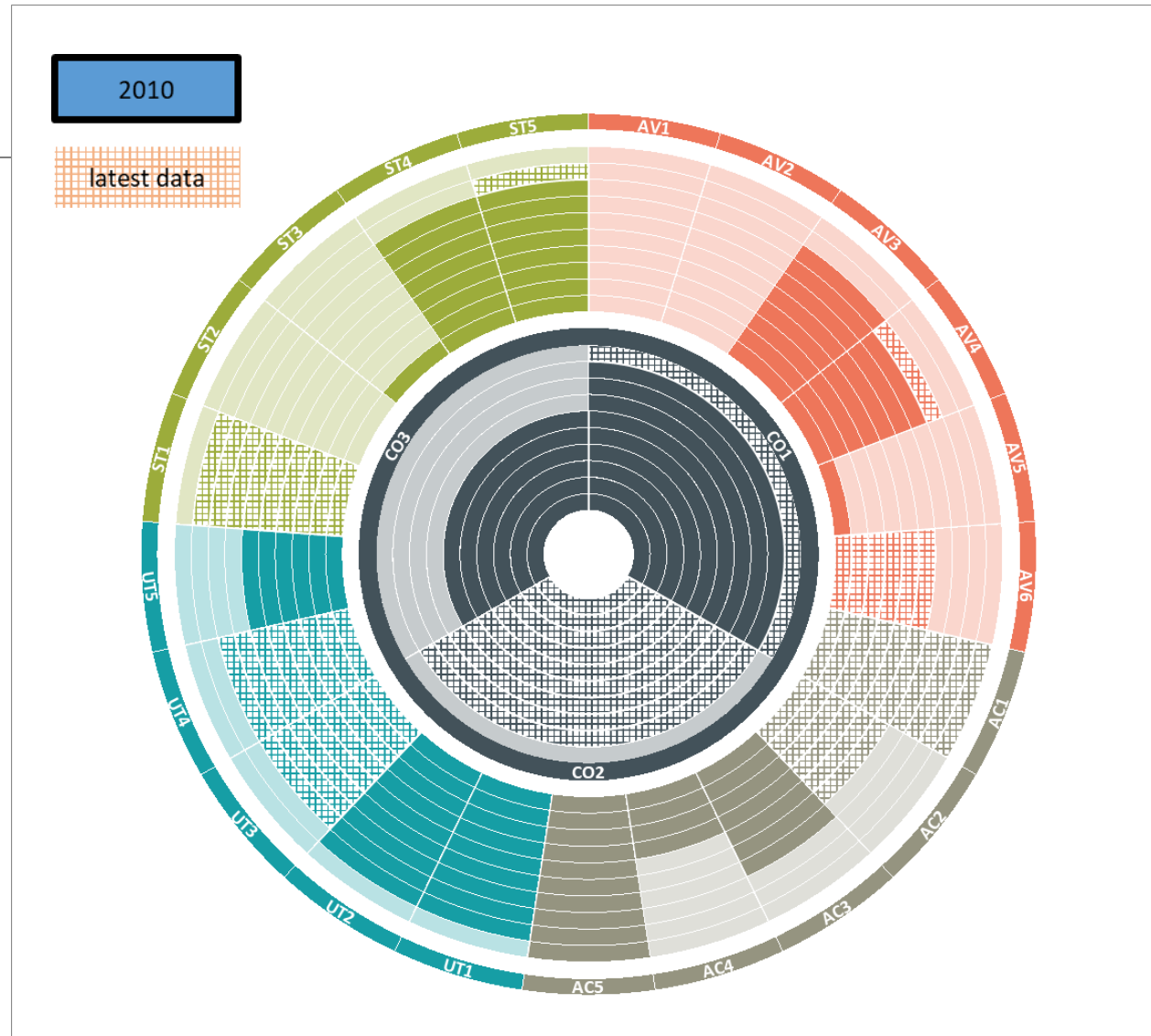**5** indicators in the **Access pillar** of which 2 are direct SDGs indicators

5 indicators in the **Utilization pillar** of which 4 are direct SDGs indicators

5 indicators in the **Stability pillar** of which 1 is a direct SDG indicator

Core indicators	CO1	Prevalence of undernourishment (%)
	CO2	Prevalence of severe food insecurity measured using FIES (%)
	CO3	Prevalence of obesity in the adult population (18 years and older) (%)

Availability	AV1	Primary wheat yield as a percentage of potential achievable yield (%)
	AV2	The agriculture orientation index for government expenditures (AOI)
	AV3	Food Losses (% of total food available)
	AV4	Average dietary energy supply adequacy (%)
	AV5	Cereal import dependency ratio (%)
	AV6	Share of water resources used in agriculture, out of total renewable water resources (%)

Access	AC1	Poverty headcount ratio (% of population)
	AC2	Share of food consumption expenditure in total household consumption expenditure (%)
	AC3	Unemployment rate (%)
	AC4	Logistics performance index
	AC5	Food Consumer Price Index (%)

Utilization	UT1	Proportion of population using at least basic drinking water services (%)
	UT2	Proportion of population using at least basic sanitation services (%)
	UT3	Percentage of children under 5 years of age affected by Stunting (%)
	UT4	Percentage of children under 5 years of age affected by Wasting (%)
	UT5	Prevalence of anemia among women of reproductive age (15-49 years) (%)

Stability	ST1	Climate change vulnerability index
	ST2	Food price anomalies
	ST3	Political stability and absence of violence
	ST4	Per capita food production variability (%)
	ST5	Per capita food supply variability (%)

Visualization

The framework is presented as a single chart (doughnut chart) providing a rapid visual, comparative and quantitative assessment of a multivariable system

Thank you