DRAFT

ACRONYMS AND ABBREVIATIONS

CU   Coordination Unit 3GAFSP4

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INTRODUCTION

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food insecurit& in a consistent way throughout the world, FAO proposes the use of two different indicators: the percentage of individuals that have experienced **moderate-or-severe** food insecurity $(FI_{mod+sev})$ and the percentage of individuals that have experienced severe food insecurity (FI_{sev}).[4]

6. The FIES Survey Module (FIES-SM) is composed of eight questions with simple dichotomous responses (yes/no). Questions can be framed with reference to single individuals or to all individuals living in a household, and are typically applied with a reference (recall) period of 12 months. FIES also provides an extended version of the questionnaire, with two additional follow-up questions relating to the more severe end of the scale of experiencing hunger, to extend the measured range at the severe end for use in populations where it is important to further discriminate among the severely food insecure. Given the higher prevalence of food insecurity and undernourishment in typical GAFSP-recipient countries and locations, it is anticipated that GAFSP projects will roll out the extended version of FIES for the upcoming cohort of projects.

FIES FOR DEVELOPING COUNTRIES: EXTERNAL VALIDATION

7. One of the most important characteristics of a strong M&E system is the validity of the indicators selected. As part of the process of selecting indicators for GAFSP, the M&E working group undertook a systematic validation exercise for the FIES. The objective of this validation effort was to test the FIES vis-à-vis globally referenced indicators of poverty and human development, and to use the results from the validation analyses to inform the GAFSP Steering Committee about the suitability of FIES as the chosen indicator of hunger/food security for the GAFSP program. The validation exercise first applied external and cross-country analyses to FIES-based prevalence rates computed by the Voices of the Hungry project team.

8. The results presented here situate the estimated FIES-based measures in the broader context of relevant human development indicators. FIES-based measures of food insecurity have high correlations with poverty rates, under-five mortality, undernourishment, and stunting. Based on FIES data collected via the Gallup World Poll in 82 developing countries, Table 1 presents the Spearman's rank correlation and Pearson's correlation between the two FIES-based measures: (1) the prevalence of moderate or severe food insecurity in the national adult population $(FI_{mod+sev})$ and (2) the prevalence of severe food insecurity in the adult population (FI_{sev}); and poverty and health outcomes. Table 2 shows the strength of the relationship between FIES-based indicators and under-five mortality rate after controlling for extreme poverty, which is positive and significant (estimated for a sample of AK countries, for which complete datasets are available for both dependent and independent variables). Scatter plots (Figure 1 and Figure 2) depict the strength of these correlations. This exercise helped to lay the groundwork for further thinking about potential target setting for FIES at the program level.

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[4] A third indicator, the percentage of individuals experiencing moderate levels only (FI_{mod}), can be computed as the difference between $FI_{mod+sev}$ and FI_{sev}. FAO advises against reporting on this third indicator because reductions in FI_{mod} may be due to either a reduction of overall food insecurity (i.e. some of those who used to experience moderate levels of food insecurity improve their condition) or to a worsening situation (when some of the move to severe levels).

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FIES FOR GAFSP: TARGET SETTING

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146 In all cases@elasticity esti1ates are deri0ed /y regressing t4e log c4ange in pre0alence o5 5ood insecurity on t4e predicted log c4ange in inco1e%-o ca. ture the in#/uence o# ti e . eriod s. eci#ic e##ects, an a/ternati,e ode/ is a/so esti ated inc/udin% &ear du ies[K] under each scenario 3see the discussion in the 8esu/ts section46 9ith on/& t+o &ears o# data a,ai/ab/e, the addition o# the ti e du & had no si%ni#icant in#/uence on the esti ated e/asticities6

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1@6 For GAFSP countries@t4e c4ange in t4e pre0alence o5 5ood insecurity in response to inco1e@1easured /y GNI per capita@is esti1ated to /e statistically signi5icant 2gi0en p60alues less t4an -%-?3 3-ab/e E6146 -he esti ated ne%ati,e ,a/ues o# the esti ated e/asticities broad/& su. . ort the theor& that hi%her inco e is associated +ith a /o+er . re,a/ence o##ood insecurit&62n si . /e ter s, the esti ates #ro the #irst ode/ su%%est that #or e,er& 10 . ercent increase in G*2 . er ca. ita, the . re,a/ence o# oderate5to5se,ere #ood insecurit& i%ht dec/ine b& 46A . er (r)11. 03 (e)-3. 3 9 9 26 ( )-2. 6 242 (t4e)-8 (c)2 9 3 (r)0. 138 . 87445 (a)-0. 172821 ( )-7. 06174(

variation over time. The smaller time series effects limit the robustness of the approach to derive targets for FIES-based indicators. Controlling for the effects of unique country characteristics to isolate the impact of income difference on food insecurity is also a challenge.

20. There is also no way to validate national level results with household level estimates. The Gallup World Poll survey results used by FAO are based on around 1,000 interviews per country, and are designed to be representative of the national population. Although adjustments are made to reflect the respective shares of urban and rural populations, for many countries the samples drawn from rural areas may be too small to be representative of the rural-based beneficiaries targeted by GAFSP. There is no way currently to assess the extent of these differences, and the associated robustness of using the elasticities derived from national level results as indicative of those for potential GAFSP beneficiaries. Although the GAFSP M&E team, through its partnership with the FAO team, has access to micro-level data used to estimate FIES prevalence rates, additional micro-level data for demographic variables (gender, age), employment status, geographic variables (rural/urban), and income corresponding to the same individual households would need to be accessed in order to carry out additional ex-ante analysis at the household level.

Recommendation to the SC

21. Such an analysis, using an additional year's worth of data, would provide a better informed FIES target recommendation for GAFSP and is the approach recommended by the CU to the SC. The FAO team is expected to provide age, gender, education, and urban/rural and marital status data to the CU. To access the micro-level income data needed to complement the FIES data and enable further analysis, the CU would need to obtain a license from Gallup for its data-sets for GAFSP-eligible countries for 2014, 2016, and 2017. The CU is in initial discussions with Gallup through the FAO team and will use funds from within the planned M&E budget for FY17/18 to cover costs, as part of GAFSP's operationalization of the updated GAFSP indicators. Members of the M&E Working Group will be informed of progress regularly, with the CU coming back to the SC with updated recommendations on targets by the end of CY 2017, data availability permitting.

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. xi: xtreg LnFImodsev LogGNIpercapita, re r

Random-effects GLS regression              Number of obs     =        50
Group variable: country1                   Number of groups  =        25

                                           Wald chi2(1)      =      9.15
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. xi: xtreg LnFIsev LogGNIpercapita, re r

Random-effects GLS regression              Number of obs     =        50
Group variable: country1                   Number of groups  =        25

                                           Wald chi2(1)      =      7.79
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ANNEX 1: COUNTRIES ELIGIBLE FOR GAFSP FUNDING

The call for proposals will be open to all members of the International Development Association (IDA) that are eligible to receive financing from IDA and not the International Bank for Reconstruction and Development (IBRD; "blend" countries), and that are not in non-accrual status.[10] This currently includes the 63 countries list in Table A1.1.

Table A1.1: Countries eligible for GAFSP funding, by region

Africa (30 countries)		East Asia and the Pacific (11 countries)	Europe and Central Asia (3 countries)	Latin America and the Caribbean (4 countries)	Middle East and North Africa (1 country)	South Asia (5 countries)
Benin Burkina Faso Burundi CAR Chad Comoros Côte d'Ivoire Djibouti Democratic Republic of Congo Ethiopia Gambia Ghana Guinea Guinea-Bissau Kenya Lesotho Liberia	Madagascar Malawi Mali Mauritania Mozambique Niger Rwanda STomé and Príncipe Senegal Sierra Leone South Sudan Tanzania Togo Uganda Zambia	Cambodia Kiribati Lao PDR Marshall Islands Micronesia, FS Myanmar Samoa Solomon Islands Tonga Tuvalu Vanuatu	Kosovo Kyrgyz Republic Tajikistan	Guyana Haiti Honduras Nicaragua	Yemen	Afghanistan Bangladesh Bhutan Maldives Nepal

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[10] Nonaccrual status occurs when the oldest payment arrears are six months overdue. Once all arrears are cleared, all loans to, or guaranteed by, the country are generally restored to accrual status.