EXECUTIVE SUMMARY

Social protection coverage – Sudan case study

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Food and Agriculture Organization of the United Nations

international policy centre for inclusive growth

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By Fabianna Bacil and Wesley Silva

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EXECUTIVE SUMMARY

Comprehensive social protection systems are key for mitigating poverty and promoting development. For this reason, the enhancement of social protection coverage is also one of the targets of SDG 1 ('End poverty in all its forms and everywhere'). Moreover, the current COVID-19 pandemic emphasises the importance of building a comprehensive social protection system that mitigates the vulnerability of people and enhances the government's ability to react fast to a myriad of shocks that might affect the national population.

In partnership with the Regional Office for the Near East and North Africa (NENA) of the Food and Agriculture Organization of the United Nations, the International Policy Centre for Inclusive Growth (IPC-IG) has developed a toolkit to calculate the extent to which the population is covered against the risks that affect them throughout their life cycle (Bacil et al. 2020). This methodology focuses on identifying different social groups and the risks to which each of them is vulnerable, defining a coverage function for each risk that enables a calculation of how much an intervention is capable of protecting vulnerable people against said risk. Thus, it goes beyond the usual approaches to measuring social protection coverage, which tend to equate programme participation with social protection coverage.

This research report presents a case study of the application of the proposed methodology to Sudan using data captured by the 2014-2015 National Household Budget and Poverty Survey (NHBS). In addition to an introduction and a conclusion, the case study comprises four sections. The first summarises the main information from the 2014-2015 NHBS, which was conducted by the Sudanese Central Bureau of Statistics (CBS) with the aim of collecting socio-economic information about the population of the country. The sample is comprised of 11,953 households across the 18 Sudanese states, and the results are representative at the national level, urban/rural level and state level (CBS 2017). The main indicators, such as the national poverty lines, are calculated based on the information provided by the NHBS.

The application of the methodology proposed in the toolkit requires the identification of individuals' characteristics to fit them into specific social groups, and the risks to which each of these categories is exposed. This survey enables the identification of different social groups according to the age, gender and place of residence of the respondents, as well as six risks: a child being out of school, food insecurity, unemployment, insufficient earnings, crop failure and livestock issues, and natural disaster. A government report on the National Health Insurance Fund (NHIF) was used to include an additional risk of lack of access to health care. Another key piece of information is on economic transfers and other income sources, which is also covered by the NHBS.

The following part of the report has two subsections. The first summarises the government programmes and some of the humanitarian interventions that existed in Sudan in 2014. The programmes established by the Sudanese State were mapped by analysing government documents, while the data on the latter were provided by a study conducted by the United Nations Office for the Coordination of Humanitarian Affairs, which mapped cash-based interventions in the country. The second subsection presents how the NHBS questionnaire collects data on economic transfers, which it defines "in cash or in-kind transfers received by the household from the Government, Organisations (NGOs) or persons living outside the household" (CBS 2017). This description comprises public and private transfers from diverse institutions through different mechanisms. There are six questions about economic transfers in the questionnaire, focusing on benefits (in-kind or cash) received in the 12 months before from food aid programmes; other government transfers; non-government organisation (NGO)/charity schemes; the Zakat Chamber; individuals outside the household; and other groups. The 2014-2015 NHBS data indicate that the incidence of government schemes (excluding *zakat* benefits) is quite modest in both rural and urban areas, while individuals outside the household are the main source of economic transfers.

Given the six questions, it is noticeable that the NHBS questionnaire does not allow a significant level of separation between the different programmes. Thus, it is not possible to estimate the participation of an individual in specific government schemes, which encompass a great variety of interventions. Additionally, the reliability of the answers

might be compromised, as the recipient might not easily differentiate between the income sources and types of programmes, especially if the household receives benefits from multiple sources and given that the Zakat Chamber's institutions are used to deliver other government programmes. It is also not possible to identify the type of in-kind benefit and the value received by the respondent from each programme (the exception is the Zakat Chamber). Lastly, the order of the questions poses another challenge, since they go from more general to more specific, which might mislead respondents. All these issues add to the known underestimation of the coverage of social protection benefits through household surveys, placing important caveats on estimates of coverage in Sudan.

Keeping in mind these shortcomings with the data, section 4 of the report presents the coverage calculations. To understand the vulnerability of the Sudanese people, the study focuses not only on the **formal provision of social protection** (social protection provided by the Sudanese government) but also other sources of protection that people can use to mitigate their risk exposure. Namely, these include the **informal provision of social protection**, which is provided by communities/extended families and private institutions, and the protection (called **individual coverage** in this report) individually acquired through people's income and access to the credit market, which provides an additional coping mechanism in times of need.

The first step to calculate coverage is by linking the mapped risks to social groups and then to sources of protection, identifying both the vulnerable population and the sources of protection that address each risk. For Sudan, as already mentioned, seven risks were mapped through the NHBS and government documents, while eight sources of protection were identified through the six questions on the economic transfers section of the NHBS questionnaire and income and credit market data gathered by this survey. In this context, the formal provision of social protection comprises economic transfers through government schemes and the Zakat Chamber. Informal social protection encompasses food aid programmes, NGO and charity schemes, and individuals outside the household. Individual coverage, on the other hand, encompasses both own income and access to the credit market.

After linking the mapped components and identifying the sources that should be grouped under the three main categories of protection, it is necessary to assign weights to each risk at the individual level. This weight can represent, for instance, how the society values risk mitigation (for example, a government might prioritise ending hunger, giving it a higher weight) or the importance of a risk to a given group (e.g. if child marriage is more present in rural than in urban environments, the weight could be a higher value for rural children). In this study, equal weights were assigned for every risk. Following this, the next step is to analyse each risk separately and define a coverage function to be applied to calculate the average protection coverage rate by source.

The first risk mapped through the NHBS is that of school-age children being out of school. The study considers that every individual of school age is vulnerable to this risk, but it excludes from the calculations those respondents who indicated on the questionnaire 'lack of schools' as the reason for not being enrolled. To define a coverage function that enables the measurement of risk mitigation, the report builds on a UNICEF (2019) study and additional literature and adopts the premise that there is a negative correlation between a child being out of school and the household's income level. A logit function is then determined, calculating the probability of a child being out of school as a function of the household's per capita income and dummy variables that indicate social characteristics of the individual (age group, gender and place of residence). In summary, the coverage rate indicates how much the risk of a child being out of school decreases due to the amount of income acquired through each specific source. In this case, individual coverage is the main factor that prevents this risk, while private and government transfers (informal and formal social protection, respectively) are each below 1 percent.

The next risk analysed is food insecurity, which is strongly linked to a household's lack of purchasing power to acquire enough food. Therefore, the study considers that this risk can be captured by the value of per capita food consumption relative to the Sudanese global poverty line (GPL). In this sense, individuals whose per capita food consumption level is below the food poverty line are recognised as already suffering from food insecurity, and their coverage is automatically zero, while respondents whose per capita food consumption value is above the GPL are considered

completely covered against this risk. The level of protection of people with per capita food consumption between these two values ranges from 0 to 1 and is determined by the share of the gap between per capita food consumption and the GPL that is covered by the individual transfer. The exception is the protection acquired by the individual through their own income and the credit market, which considers solely the value of per capita food consumption and is equal to the share of the GPL covered by it. Individual coverage has an average protection rate of 69.77 percent, compared to 1.27 percent for informal social protection and 0.31 percent for formal social protection.

The third risk is unemployment, which affects paid workers. The lack of an unemployment insurance scheme or other similar programme means that the coverage rate against this risk is equal to zero for every source of protection in this case.

The risk of insufficient earnings affects everyone whose net income per capita is below the GPL. Even though this risk is usually higher for informal workers and is impacted by the regulations in place for different sectors, the NHBS does not adequately differentiate between informal and formal workers; thus, the study treats all employees equally. Given that the risk occurs if the amount of earned income is too low, individual coverage only considers access to the credit market in this case. The coverage function considers the difference between the GPL and the household's net income per capita, and the protection coverage rate indicates the share of this gap that is covered by each source of economic transfer. Again, individual coverage has the highest average protection coverage rate, at 9.91 percent, while informal social protection amounts to 2.22 percent, and formal social protection 0.61 percent.

There are two risks exclusive to farmers in this study: crop failure and livestock issues, which include the risk of crop diseases or pests and the death or theft of livestock, and natural disaster, encompassing droughts and floods/rain. They are captured in the NHBS through a question that asks about shocks that happened in the five years prior to the interview and provides information on how those who suffered such shocks managed their consequences. The average coverage rate is then given by the answers provided by the respondents. For crop failure and livestock issues, the average protection coverage rates are 34.16 percent for individual coverage, 2.52 percent for informal social protection and 0.21 percent for formal social protection. For natural disaster, these values are 46.65 percent, 4.92 percent and 0.88 percent, respectively. Considering all the risks that affect farmers, the highest overall protection rate is through individual protection (29.9 percent), followed by informal social protection (1.1 percent) and, lastly, formal social protection schemes (0.3 percent).

Considering all these risks together, protection individually acquired has the highest average coverage rate (42.4 percent), while government provision of formal social protection makes the smallest contribution to mitigating risks (0.4 percent). The average coverage rate of informal social protection is 1.3 percent. Regarding individual coverage specifically, personal income is the most important source: while the credit market only protects against 2.1 percent of the risks, this proportion rises to 40.3 percent for personal income. The same pattern is observed when contrasting different social groups—for example, differentiating by age group, place of residence and disability status.

Additionally, this study considers a seventh risk (lack of access to health care), captured not through the NHBS but by using government data that show the share of the population that benefited from the NHIF in 2014. As it is a state programme, the only source of protection here is formal social protection, and the coverage rate is equal to participation in the scheme (34.8 percent). This results in a significant increase in the average overall protection rate provided by the government (11.9 percent), while the protection rate from other sources decreases (26.5 percent for individual coverage and 0.9 percent for informal social protection).

The report provides a comparison between the new methodology and the coverage measured by participation in the Zakat Chamber's programme that offers,benefits to poor and needy people. It shows that the coverage rate of the Sudanese formal social protection system is low regardless of the methodology used to measure it. If participation in a scheme is deemed enough to consider a person protected, government programmes reach less than 3 percent of women and men in rural and urban areas.

In conclusion, this study indicates a significant social protection coverage gap in Sudan. In other words, the benefits currently provided by the government are insufficient to address the risks that affect the population throughout the life cycle, hampering people's livelihoods and the country's development.

In this sense, even though the expansion of participation in social protection programmes is crucial to enhance coverage in Sudan, it is important to keep in mind that this is not the only relevant aspect. The type and level of benefits need to be capable of addressing the risks that the different groups face. Therefore, it is essential to comprehend the risks that affect each section of the population and design interventions suited to mitigate them.

The availability of reliable data is essential to enable an accurate measurement of the coverage rate and guide evidence-based policymaking. Therefore, it is important to overcome current NHBS limitations. Foremost, the questionnaire should include detailed questions on economic transfers, disaggregating their sources and enquiring about the value and frequency of the transfers. The text and order of questions also need to be examined, as the way they are framed interferes with respondents' answers. The supporting documentation should also provide more information, allowing the application of statistical inference. Another important improvement would be the inclusion of questions that provide more detail on social groups, such as the identification of respondents' employment sector (formal and informal).

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