

Income Streams Index (ISI) Development: 2021 Interim Report

A FEINSTEIN INTERNATIONAL CENTER BRIEF 

Merry Fitzpatrick

Executive Summary

This report is the third of four reports planned to be produced during the testing and development of the Income Streams Index (ISI). Only the final report will be comprehensive. Each of the first three reports focuses on a separate aspect of the data. The baseline report provided detailed descriptions of the study population and their livelihoods. The first interim report discussed the most-common shocks and their responses, but there were not enough rounds of data completed at that time to evaluate trends. This report uses data from six rounds and describes trends in livelihood activities and the ISI score over time, in order to present an initial evaluation of the factors to which the ISI score is sensitive. The final report will be comprehensive and will make recommendations for modification of the ISI score and ISI's potential future use in a possible extension to the Taadoud program.

This interim report uses longitudinal data from a base of 370 participants across three states: North, West, and Central Darfur. Through six rounds of interviews, the study has accumulated 1,870 interviews covering the period from August 2018 to February 2020. The data collection was stopped at the start of the pandemic. The final report will include one round conducted during the pandemic (December 2020/January 2021) and a final (hopefully post-pandemic) round projected for August/September 2021.

The two most-preferred livelihood activities in Darfur remain cultivation and livestock.

Participants were classified into two broad livelihood specializations depending on the activity most central to their strategies, as reported by the participants themselves. There is tremendous variation within these specializations. "Pastoralists" specialize in livestock but complement that with cultivation to varying degrees. Likewise, "cultivators" specialize in cultivation but complement that with livestock to varying degrees. **The ISI scores reflect the ability of households to focus more on the preferred, more productive, scalable activities, and to be less reliant on activities which offer lower returns, but which may be more accessible.** The ability of households to simultaneously engage in both preferred activities (regardless of their specialization) had higher ISI scores. We see the link between ISI scores and resilience in that **those with higher ISI scores were less likely to resort to negative responses to shocks** (i.e., negative coping strategies). Households' ability to avoid negative responses also depended in part on the type and severity of a shock.

The two years covered by the data had good rains, with the first year being exceptionally good. That first year saw households refilling their reserves and beginning to invest in their livelihood activities.

During the second year, with reserves already recovered, households invested in their livelihoods.

The data are all pre-pandemic, and the most significant covariate shock recorded is inflation. **Inflation is undermining gains in resilience, by depleting production surpluses through higher costs for food, education, healthcare, and livelihood inputs.** The impact of inflation was only partially offset by higher prices received for production. Qualitative interviews that accompanied the surveys indicated that many cultivating households had shifted from low-profit/low-risk grain crops to higher-profit/higher-risk cash crops. Normally, we would interpret an increase in willingness to take on risk as a sign of confidence and resilience. But these same interviews indicated that this was only partially the case. **Inflation had increased pressure on the need for cash beyond what households could earn from grain. With granaries comfortably full from the previous bumper harvest, many households invested in cash crops** (see the “Transforming Livelihood Systems: Meeting needs in a changing world” brief). If rains and market prices remain good, this shift could help households. If either rains or markets are not good, then these households will have lost not only the food that grain would have provided to the household but also the additional resources that were used to grow the cash crops.

Taadoud-supported savings groups play a unique role in building resilience. The groups provide both a means to invest in livelihoods and a safety net for moderate shocks. **Half of all cited uses of SILC and loans were for medical treatment.** In the first two periods, use of loans, credit, and Savings and Internal Lending Communities/Savings for Change groups (SILC/SFC) constituted 15-20% of all responses to shocks in the first two periods for each livelihood strategy but tapered off with each successive period beginning in the second period (late 2018/early 2019). By the last period (early 2020), use of SILC and loans had dropped to less than 2% of responses in every state. **Due to very high inflation, people were avoiding cash savings, and most SILC groups were not giving loans. Although some savings groups converted cash to animals or other investments, many savings groups had stopped functioning altogether.** Supporting SILC groups to

adapt to non-cash alternatives during hyperinflation would enable them to continue to benefit Taadoud participants while preventing groups from disbanding altogether.

Throughout the study period, the pastoralists have appeared to be, on average, more resilient than the cultivators and to have started the study period from a better position. This averaging of scores hides the fact that **there is more variability among the pastoralists than among the farmers; that is, there are more very wealthy and very poor pastoralists.** This observation is seen in the data and was mentioned during qualitative interviews. This is important to note because it means there is a hidden group of especially vulnerable households among the pastoralists. As **their skillset is likely to be related to livestock rather than cultivation, assistance for this group needs to be tailored to their specific needs and capacities.**

With six rounds of data now included in the analysis, we have almost 2,000 interviews and can begin to evaluate which factors are having the most influence on the ISI score. Using linear regression, we have identified factors that account for 20% of the differences in the ISI scores. So 80% of what affects the ISI score was not captured. On the other hand, 20% is good for a concept like resilience, which is so very complex and multifaceted. It is sufficient to provide meaningful results. Even when we control for state and livelihood specialization, several factors emerge. Together they indicate that with adjustments, the ISI may be a useful metric to use in combination with others to better understand the resilience of a population. The danger is that the total score will come to be used as a stand-alone measure, whereas the real value of the ISI is not the score itself. The value of the ISI is in the richness of the data used in creating the score. For example, the regressions indicate that reports of animal disease and the sale of livestock in response to a shock (even when controlling for livelihood specialization) are associated with higher ISI scores. One interpretation is that **the sale of livestock as a shock response is not a sign of desperation, but rather more resilient households use livestock as an insurance strategy preventing them from having to resort to more negative coping strategies. Labor as a response**

to a shock, on the other hand, is associated with lower ISI scores. That is to say, households who use labor as a shock response tend to be less resilient.

In qualitative interviews, households using labor as a response indicate that they make the effort to do additional labor to pay for a shock to protect resources (such as animals or crops) needed for consumption or for supporting livelihood strategies. Loans and seeking support from others were also associated with lower ISI scores. The fact that specific responses to shocks are associated with higher or lower ISI scores offers promise that the ISI score is in fact capturing at least one aspect of resilience.

Key takeaway lessons

Complementary preferred activities increase resilience.

Individual household characteristics affecting a household's resilience included their ability to engage in both cultivation and livestock rearing, the households' assets or resources (including social networks), and access to additional temporary sources of income—characteristics that appear to be captured by the ISI score.

Gains in resilience were made by some households, but inflation is eroding resilience for many.

Some households are generating surplus income from good years of rain, reinvesting in their livelihood strategies, and improving their responses to shocks. The gains of other households are being eaten away by rising costs.

Inflation is undermining Taadoud savings groups.

With high inflation, storing wealth in cash or providing cash loans become impractical. Many savings groups have stopped functioning, but others have modified activities to non-cash forms of wealth management. This reduces the effectiveness of loans from SILC as a resilience strategy.

In summary, several years of good rains have supported households in their recovery from the events of the past twenty years, but these gains are being eroded by hyperinflation. Households are adapting to Sudan's changing economic environment by shifting to crops and livestock that are more marketable. Support of savings groups and similar structures have helped sustain household resiliency, but they need to adapt to the current economic situation to remain viable. This trial of the ISI has indicated that it does capture elements of resilience, such as the ability to remain productive while adapting to shocks and a changing environment, and to identify coping strategies associated with resilience.

A household's ability to respond to a shock varies depending on the type and severity of the shock.

Key aspects of a shock that affect how a household responds include its urgency and predictability, associated social implications, and impact on a livelihood strategy.

Hidden vulnerability exists among pastoralists.

Average resilience and food security measures are higher for pastoralists than farmers, but this finding hides the presence of an especially vulnerable group of pastoralists that needs specialized support.

Performance of the ISI is promising. The ISI score correlates strongly with certain experiences of shocks and responses, indicating that with additional adjustments, it may prove a useful measure.