

IOM REGIONAL DATA HUB FOR THE EAST AND HORN OF AFRICA

IMPACT Study Report #5

USING NATURAL EXPERIMENTS IN CRISES: LESSONS FOR EVALUATION



■ **EU-IOM**
Joint Initiative for
Migrant Protection
and Reintegration
■



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Postal Address: P.O. Box 55040-00200, Nairobi, Kenya
Email: Regional Data Hub (RDH) rdhronairobi@iom.int
Website: <https://eastandhornofafrica.iom.int/regional-data-hub>

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Authors: Michael Loevinsohn and Tom Gillhespy
Contributors: Chris Barnett, Leonora Evans-Gutierrez and Callum Taylor
Submitted by Itad in association with Applied Ecology Research, Statistics for Sustainable Development (Stats4SD), JaRco, Dansom and Sayara. Assignment supervised by Davide Bruscoli and Mitsue Pembroke.
Report design by We2 – www.we2.co
Copy-editing by Zeina Wairoa

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ABOUT THE IMPACT STUDY

The IMPACT Study is the impact evaluation of the EU-IOM Joint Initiative programme in the Horn of Africa. Launched in March 2020 and concluded in March 2023, the study focuses on Ethiopia, Somalia and the Sudan: the three countries in the region where the programme has the largest reintegration caseload. All the IMPACT Study reports, as well as additional resources such as technical annexes, datasets, data analysis scripts and dissemination material are accessible from the IMPACT Study webpage: <https://eastandhornofafrica.iom.int/impact-study>.

ABOUT THE EU-IOM JOINT INITIATIVE FOR MIGRANT PROTECTION AND REINTEGRATION

The EU-IOM Joint Initiative for Migrant Protection and Reintegration was launched in December 2016 and is funded by the European Union Emergency Trust Fund for Africa. The programme brings together 26 African countries of the Sahel and Lake Chad, the Horn of Africa, and North Africa regions, along with the European Union and IOM around the goal of ensuring that migration is safer, more informed and better governed for both migrants and their communities. In the Horn of Africa, the programme is implemented primarily in Djibouti, Ethiopia, Somalia and the Sudan. The programme enables migrants who decide to return to their countries of origin to do so in a safe and dignified way. It provides assistance to returning migrants to help them restart their lives in their countries of origin through an integrated approach to reintegration that supports both migrants and their communities, has the potential to complement local development, and mitigates some of the drivers of irregular migration. Also within the programme's areas of action is building the capacity of governments and other partners; migration data collection and analysis to support fact-based programming; as well as information and awareness-raising. Further information on the programme can be accessed at: www.migrationjointinitiative.org.

ABOUT THE REGIONAL DATA HUB

Established in 2018, the Regional Data Hub (RDH) for the East and Horn of Africa supports evidence-based, strategic and policy-level discussion on migration through a combination of initiatives. In particular, the RDH uses multiple tools and processes to investigate the migration narrative in the region and gain a more in-depth understanding of the actors, dynamics and risks of migration. These initiatives aim to fill existing gaps by strengthening the regional evidence base on migration, which will further improve policymaking and programming. The RDH strategy is in line with the objectives of the IOM Migration Data Strategy (MDS). Publications can be consulted at <https://eastandhornofafrica.iom.int/regional-data-hub>. The RDH is largely funded through the generous support of the European Union, under the terms of the EU-IOM Joint Initiative for Migrant Protection and Reintegration in the Horn of Africa (EU-IOM JI), the U.S. Department of State Bureau of Population, Refugees and Migration (PRM) and IOM's Migration Resource Allocation Committee (MiRAC).



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LIST OF ACRONYMS

CLS	COVID-19-Linked Shock
COVID-19	Coronavirus disease 2019
ERA	Economic Reintegration Assistance
IOM	International Organization for Migration
JI-HoA	EU-IOM Joint Initiative for Migrant Protection and Reintegration in the Horn of Africa
RSS	Reintegration Sustainability Survey

INTRODUCTION

BACKGROUND

The EU-IOM Joint Initiative for Migrant Protection and Reintegration is a flagship initiative that supports African migrants who find themselves stranded and choose to return to their countries of origin in a safe and dignified way. It is the first set of large reintegration programmes that attempts a systematic operationalization of the so-called *Integrated Approach to Reintegration*, and therefore includes several innovative elements compared to more “traditional” reintegration programmes.¹

In 2020, IOM commissioned a three-year impact evaluation (referred to as IMPACT) of the EU-IOM Joint Initiative programme in the Horn of Africa (referred to as JI-HoA), focusing on Ethiopia, Somalia and the Sudan. The study had its own innovative elements, among which the use of a natural experiment that capitalized on the opportunity presented by the coronavirus disease 2019 (COVID-19) lockdown restrictions to further understand the resilience of returnees when faced with extreme shocks.

RATIONALE

The pandemic created the conditions that could stress-test the JI-HoA programme and understand better how beneficiaries were able to respond in a crisis. The natural experiment approach allowed to turn these adverse circumstances into a valuable opportunity for evaluation, which resulted in the natural experiment-based evaluation component of the IMPACT study (IMPACT natural experiment-based evaluation) presented in the IMPACT Study Report #2 titled “COVID-19, returnees and IOM in the Horn of Africa: a natural experiment-based evaluation”.

From a methodological perspective, implementing the IMPACT natural experiment-based evaluation generated insights and allowed IOM, Itad and its evaluation partners to complement the other evaluation approaches pursued in the IMPACT study.² This report highlights some of these complementarities and shares lessons for others who might consider integrating natural experiments into their programme evaluations.

1 More information on the Integrated Approach to Reintegration is available in the [IOM Reintegration Handbook, Module 1](#).

2 IMPACT study report #1 (accessible from <https://eastandhornofafrica.iom.int/impact-study>) provides a comprehensive overview of the various components of the IMPACT study and their findings.

BENEFITS OF NATURAL EXPERIMENTS AS EVALUATIVE TOOLS

Natural experiments are opportunistic responses to conditions created by the natural and social environment within which an evaluation might take place. Applying natural experiments requires working in a given environment to “find and frame” rather than “create and control” the elements that structure and define the methodology.

As an experiment, natural experiments also require evaluators and the stakeholders they work with to reflect on the common reality they confront and propose hypotheses about what is driving change. Doing so necessitates different mindsets of evaluation commissioners and an evaluative infrastructure that is responsive and agile. Below we reflect on some of the features of the natural experiment-based evaluation presented in IMPACT report #2 and the benefits it has provided for the core evaluation approaches of the study.

“*Natural experiments are observational studies of sharp, well-defined but unplanned changes. They hinge on identifying an uncontrolled but opportune “intervention”, typically of a kind or on a scale that could not – ethically or feasibly – be implemented deliberately, and communities, groups, or individuals that are affected and not affected, or that are differentially affected by that intervention.*”³

NATURAL EXPERIMENTS PROVIDE REAL-LIFE EVIDENCE OF AN INTERVENTION BEING STRESS-TESTED

An important advantage of natural experiments that are centred on extreme events is that they provide data from a real-world event – evidence of what happened, rather than hypotheses about what might happen. Natural experiments can thus provide insights with a level of confidence that conventional evaluations might have difficulty matching.

Often, these events will be shocks that stress-test a programme intervention or outcome at scale. By observing how programmes perform under stress, and the extent to which those programmes help people and communities deal with that stress, we can learn more about programme effectiveness. In the IMPACT natural experiment-based evaluation, we were able to assess the extent that individual components of the JI-HoA’s assistance contributed to people’s resilience to the COVID-Linked Shock (CLS).⁴ By using fixed-effect multivariate regression analysis,⁵ we were able to identify the factors that helped or hindered resilience. This analysis provided valuable insights into returnee agency in the face of shocks, the actions they adopted in response, and what conditions and characteristics influenced their resilience.

The analysis also showed how different assistance and delivery times, as well as returnees’ own actions, contributed to resilience. Much of our analysis focused on the major component of the assistance provided under the JI-HoA programme – the Economic

3 Loevinsohn, M. *Natural Experiments: An Under-Appreciated Evaluation Resource?*, CDI Practice Paper 2 (Brighton, 2013).

4 Whilst the main event informing the natural experiment was the COVID-19 pandemic and associated control measures, important co-occurring shocks existed – conflict, floods, locusts – that were impossible to separate from the effects of the pandemic. These shocks are collectively referred to as the COVID-linked shock (CLS).

5 This type of analysis can identify causal relationships between variables and the outcome. In the IMPACT natural experiment-based evaluation, we used programme data of individual characteristics: age, gender, date of arrival, date of assistance, etc. From these, we constructed explanatory (that is, independent variables) for the analysis of resilience components to understand which factors contributed significantly to mitigating decline in well-being from the CLS’ impact and in increasing recovery from that impact. Well-being in eight domains at the three points was among the data we collected in our own survey as primary data collection. Change in well-being was the outcome/dependent variable in our quantitative analyses. Key explanatory variables from the survey data were the actions returnees told us they took to counter the CLS’ impact.

Reintegration Assistance (ERA). We calculated the length of time a returnee had use of the ERA and analysed what influence this variable had on well-being in the face of the CLS. By treating the timing of ERA as a continuous variable that could range from zero months (assistance had not been provided at the time analysed) to 48 months (assistance had been provided for four years previously), we could identify the importance of

IOM’s assistance to building resilience over time and its added value relative to those who had not received assistance at all. Box 1 provides an illustrative example of these results from Ethiopia. We conducted further analysis on the modality of assistance, learning important lessons about what aspects of programme design most effectively contributed to CLS resilience and for whom.


BOX 1: HOW THE JOINT INITIATIVE’S ECONOMIC REINTEGRATION ASSISTANCE OF THE JI-HOA PROGRAMME MITIGATED THE IMPACT OF THE COVID-19-LINKED SHOCK IN ETHIOPIA AT THE WORST POINT

Table 1 illustrates the results of a country-specific multivariate analysis which assesses the relative benefits of receiving ERA in Ethiopia more than six months before the worst point and compares these benefits to receiving the JI-HoA’s assistance less than six months before that point. We found that returnees who had use of the JI-HoA’s assistance for the longer period were better able to mitigate the effects of the CLS in six of eight well-being domains compared to those who had assistance for the shorter period. In this analysis, time to receive ERA was treated as a categorical variable; in most cases it was treated as a continuous variable.

Table 1. Influence of JI-HoA’s assistance to mitigate effects of the CLS at the worst point (Ethiopia)

DETERMINANT		DEPENDENT VARIABLES							
Timing	Income	Days without meals	Meals per day	Days with protein-rich foods	Meal size	Health-care access	Housing	Family/community acceptance	Remigration intention
≤ 6 months before the CLS		***							
> 6 months before the CLS			***	***	***	***	***	***	
N more than / less than 6 months	30/67	142/239	142/239	142/238	142/239	142/239	142/239	142/239	142/239

Note: Blank cells indicate where the relationship is not significant. Three stars (***) indicate that the p-value was lower than 0.001".

 = increased/better

NATURAL EXPERIMENTS CAN PROVIDE A BROADER PERSPECTIVE THAN PROGRAMME-CENTRIC EVALUATIONS

Programme evaluations are expected to be programme-centric: limited budgets and competing demands will constrain the objectives they can address and so their scope. An advantage of natural experiments is that they are more people-centred than programme-centred and hence take a more holistic view when seeking to understand how an event has influenced the lives of individuals and communities.

This broader perspective is apparent in the IMPACT natural experiment-based evaluation, which used a resilience lens to look beyond the JI-HoA intervention. This lens enabled us to assess what happened to returnees when faced with a major shock and how they acted in response. For example, we could use the analysis of the assistance’s added value to draw conclusions about the relative importance of the interventions compared to returnees’ own actions and other factors.

We analysed two key aspects of resilience: first, the ability of returnees to mitigate the impacts of the CLS

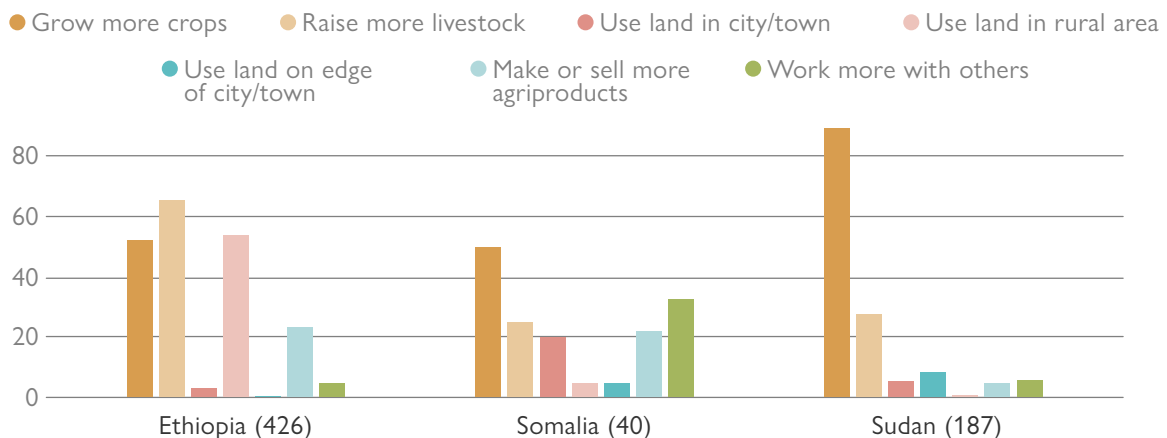
on their well-being; second, the ability of returnees to recover from those impacts. We considered eight domains of well-being: four dimensions of food insecurity, housing quality, school attendance, health-care access and acceptance by family and community.

By assessing resilience in this way, we were able to identify how the timing and modality of the assistance influenced the two aspects of resilience in each well-being domain and hence the impact of the interventions on overall resilience. This broader perspective helped us to understand the importance of the JI-HoA programme in relation to other factors and to recommend how its contribution to the resilience of returnees could be enhanced. For example, our analysis found that the most effective of returnees’ actions in response to the CLS was increased engagement in agriculture (Box 2), suggesting that this is an area where the JI-HoA programme could have targeted more intensively. The granular analysis shown in Box 2 illustrates that support would have had to be adapted to the varying opportunities returnees found to engage in agriculture, highlighting the importance of continuous communication between the programme and returnees.

BOX 2: UNDERSTANDING RESILIENCE: INCREASED ENGAGEMENT IN AGRICULTURE

The natural experiment analysis identified changes returnees made to mitigate the effects of the CLS on their well-being. The most widespread of returnees’ actions was increased engagement in agriculture, which was found to be associated with greater mitigation of the CLS’ impacts and subsequent recovery in a majority of well-being domains. How returnees increased their engagement in agriculture varied notably between rural and more urbanized regions. These findings can provide important lessons for future programme design.

Figure 1. Changes in engagement in agriculture



NATURAL EXPERIMENTS CAN BE MORE SUITED TO DYNAMIC AND SHOCK-PRONE CONTEXTS THAN TRADITIONAL EVALUATIVE METHODS

Natural experiments are arguably more suited to shock-prone contexts than more traditional evaluations. This makes natural experiments an important consideration in settings such as the East and Horn of Africa region but also globally, as extreme events are becoming more frequent. Below we outline some advantages of natural experiments in such contexts:

- **Natural experiments are adaptive and less risky:** They are centred on natural and social events beyond the control of the programme. Therefore, they can be responsive to the context and are more adaptive than traditional evaluations that will typically be designed around artificial constructs like baseline, midline and endline – that is, points in time often determined by a grant cycle rather than by impactful, significant real-world events. Traditional approaches also assume a degree of stability in the environment so that control groups can be established and contamination avoided – requirements of randomized control trials and quasi-experimental designs. On the other hand, natural experiments work with the environment to frame and focus the methodology, a less risky approach in contexts fraught with change.
- **Retrospective data collection can be reliable:** Not all extreme events that frame natural experiments will be “shocking” but they will be memorable, which can aid respondents’ recall. The IMPACT natural experiment-based evaluation was framed around a notable and widely shared experience – the imposition of lockdown and other COVID-19 control measures around the beginning of April 2020. This period represented a particularly stressful moment – a covariant shock – for many people, which would have contributed towards the returnees’ situation just before COVID-19 standing out in their memory.

BOX 3: THE FIDELITY OF RETROSPECTIVE DATA COLLECTION

Independent research found that in the main IMPACT evaluation, most returnees were able to accurately recall aspects of their situation three months after their arrival – a time specific to each returnee but not particularly notable – which served as a baseline. On average, the time of interview was 14 months after that point.

The IMPACT natural experiment-based evaluation asked returnees to recall their situation *just before COVID-19*, 18 months before the time of interview. Whilst this timeframe is a few months longer than the average of the baseline recall in the main evaluation, external literature suggests that recall is improved when it relates to highly salient events – like the imposition of control measures in April 2020.⁶ This evidence increases confidence that the data collected by returnee recall in the IMPACT natural experiment-based evaluation were reliable.

6 James Dennison, *Using Retrospective Survey Measurement in Assessing Migrant Reintegration: Evidence from IOM programmes in Ethiopia, Somalia, and the Sudan*. (IOM Regional Data Hub for the East and Horn of Africa, 2022).

LESSONS LEARNED FROM THE NATURAL EXPERIMENT-BASED EVALUATION CONDUCTED IN THE CONTEXT OF THE IMPACT STUDY

Like any complex evaluation, the IMPACT natural experiment-based evaluation presented challenges. Below we highlight some of the key challenges and how we adapted our approach and methodology accordingly.

DEFINING THE STUDY POPULATION

As discussed, a challenge of traditional evaluation approaches is defining and identifying control groups that are sufficiently comparable to the experimental group. Depending on the context of the natural experiment, these challenges may still apply, but if considering a natural experiment in response to a large-scale shock (such as a natural disaster or conflict), everyone in the area affected will have been exposed to some degree. Understanding how variation in that exposure affects people's well-being is a main goal of the experiment. Control groups and the issue of contamination are no longer of concern.

In this instance, the IMPACT natural experiment-based evaluation responded to a covariant shock, the CLS, which affected everyone in the returnee population to a certain degree. We hypothesized that the strictness with which control measures were enforced and presence of co-occurring shocks – key aspects of the CLS – varied by country and region: access to the JI-HoA programme data enabled us to stratify our sample by these two factors. The programme data also allowed us to define variables that we hypothesized had modified the impact of the CLS such as sex, age and the length of time that a returnee had use of ERA.

ADAPTING TO THE REALITIES OF DATA COLLECTION

Data collection is often one of the biggest cost drivers in an evaluation and requires careful planning. Doing so can be problematic if trying to build in a natural experiment which will respond to an uncertain event. An advantage of the IMPACT natural experiment-based evaluation was that it was commissioned once the pandemic was underway and hence was responding to a known event.

Nevertheless, the initiative faced considerable challenges: no baseline was in place to assess changes in people's well-being, and restrictions on movement due to COVID-19 and/or conflict meant that face-to-face data collection was a challenge. We discuss these challenges below and what can be learned from them.

- **Measuring resilience without a baseline:** We relied on retrospective data collection that was made possible because the beginning of the CLS was a particularly memorable event. The C-19 natural experiment methodology introduced a further data point that was entirely based on individual experience: we asked respondents to consider their worst point for each well-being domain. Analysing how far well-being declined to the *worst point* defined the impact of the CLS; factors that significantly reduced that decline were considered to have mitigated the CLS' impact. The difference between well-being *just before COVID-19* and now represented the extent of recovery and we identified those factors that significantly contributed to it. We were able to maximize travel to the field and interviews with respondents to collect data from three points in time, two of which were the same for everyone and one of which was determined by individual experiences: (1) *just before COVID-19*, (2) *now*, and (3) *worst point*. We took care to phrase the questions similarly for each well-being dimension and point in

time, a consistency which increases our confidence in the comparability of returnees' responses.⁷

- **Remote data collection:** Due to budget and logistical constraints, only a portion of returnees could be reached for face-to-face survey interviews. In the interest of consistency, we decided to sample all respondents in the same way and so we conducted the survey entirely by phone. However, recognizing the importance of face-to-face engagement, we ensured that all qualitative data were collected in person, from a subset of the returnees surveyed. The key

informant interviews and focus group discussions we conducted allowed us to deepen our understanding of the quantitative findings based on the survey.

- **Making the most of the programme data:** The reliance on remote data collection for the survey introduced a bias: we had difficulty reaching returnees who did not have phones or those whose numbers were not known to the JI-HoA programme. However, we could still learn a good deal about this large group of returnees from the programme data (Box 4).

BOX 4: MAKING USE OF EXISTING PROGRAMME DATA

A key component of the IMPACT natural experiment-based evaluation was survival analysis, which is a method to assess the time it takes people to reach an event. In this case, we used it to understand how long returnees waited to receive ERA, drawing on JI-HoA programme data. Figure 2 shows that in Oromia, Ethiopia, returnees in the groups that were not surveyed (because they were unreachable by phone) waited longer than those we did survey. By the time of the interviews in late 2021, 45 per cent of the returnees we did not survey had not received ERA and therefore could not use it to counter the CLS, versus 27 per cent of those we did survey. Given that a key finding of the IMPACT natural experiment-based evaluation was that the longer a returnee had use of ERA, the better they were able to mitigate the impacts of the CLS on well-being, these results have important implications for JI-HoA programming and delivery.

Figure 3 illustrates the marked variation in the time returnees waited for ERA among the three countries: the median time to receive ERA in Somalia was almost a year less than in Ethiopia. Survival analysis can also reveal differences related to, for example, gender and disability, and to track the performance of measures the JI-hoA programme adopts to increase efficiency and reduce disparities.

Figure 2. Time to receive ERA among sampled and unsampled returnees in Oromia, Ethiopia

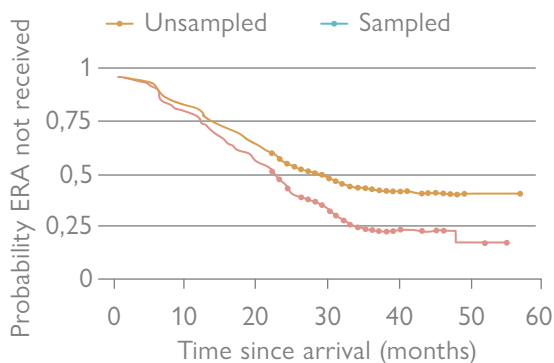
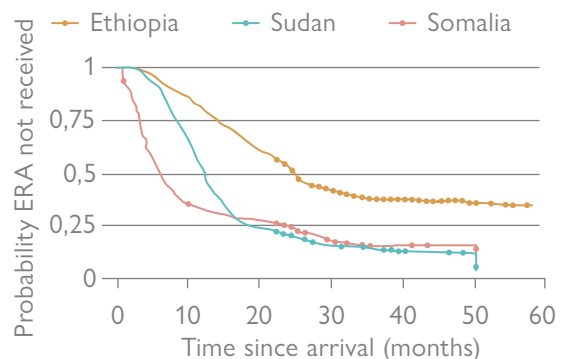


Figure 3. Time to receive ERA, by country



7 Respondents were asked to respond to the same set of questions for three different points in time: (1) *Just before COVID-19*: the month prior to the first COVID-19 control measures being imposed, approximately the beginning of April 2020, (2) *Now*: the month prior to the interview; (3) *The worst point*: a time when conditions were worse than *now*, or *now* if that was the worst point.

KEY CONSIDERATIONS FOR INTEGRATING NATURAL EXPERIMENTS APPROACHES IN FUTURE EVALUATIONS

The IMPACT natural experiment-based evaluation has demonstrated that natural experiments can add value to evaluative processes and has generated lessons for wider applicability. Below we reflect on this experience and highlight some of the more important considerations for anyone who might use natural experiments for evaluative purposes in the future.

CONSIDER NATURAL EXPERIMENTS WHEN DESIGNING EVALUATIONS

While planning for a natural experiment in detail before the event is difficult, shock-prone contexts may be more likely to experience some events than others, allowing for informed guesses of the kind of event that may create the conditions for a natural experiment. Some events may be of more interest to a programme than others, which can narrow down the focus of a potential natural experiment. There may also be outcome indicators that will be valid no matter what the event, and which may be of interest whether a natural experiment is implemented or not.

In the HoA, floods and especially drought are increasingly common extreme events, a seeming contradiction that climate change is in part responsible for. Co-occurring shocks, as in the CLS, are also to be expected and can exacerbate the impact of a particular extreme event. The succession of shocks should be considered in both the design and analysis of natural experiments. One of the critical impacts of COVID-19 elsewhere in Africa, such as Uganda, was an increase of children out of school. In the IMPACT natural experiment-based evaluation, we found little evidence of the CLS leading to children not attending school in the Sudan and Somalia, as rates of non-attendance were already high *just before*

COVID-19, likely due to a succession of political turmoil, conflict and climate-related disasters.

Predicting in advance what information would be useful may be possible, regardless of the event that determines the natural experiment. For example, humanitarian- and development-oriented agencies such as IOM would likely want to understand the resilience of the people they assist, which is best measured with domains of well-being similar to those used in the IMPACT natural experiment-based evaluation. The questions a natural experiment may want to answer, therefore, may be predictable even if the exact nature of the event is not. Indeed, the Returnee Sustainability Survey (RSS) that is well established within JI-HoA's reporting systems is structured around similar well-being domains as in the IMPACT natural experiment-based evaluation.

These considerations have implications for costs, as efficiencies can be achieved by integrating natural experiment approaches into existing monitoring and evaluation systems. All these factors should lessen the misconceptions about natural experiments and help evaluators realize that natural experiments are not as difficult to plan for as they might have assumed.

Nevertheless, predicting what might be needed is still a challenge. The RSS data collected for the main IMPACT evaluation were largely incompatible with the data collected for the IMPACT natural experiment-based evaluation, as they were collected at different times before the pandemic: the *just before COVID-19* reference period in the IMPACT natural experiment-based evaluation was a single month in 2020.

INCREASE FEASIBILITY OF NATURAL EXPERIMENTS THROUGH DATA COLLECTION EFFICIENCIES

An important means to assist the integration of natural experiments in conventional evaluations is to make the fullest use of existing data to reduce costs and to increase

complementarity between the approaches. **Any natural experiment will rely on three forms of data:**

1. **Exposure data**, which indicate who is at risk: where, when, of what, and to what degree;
2. **Outcome data**, which indicate what potentially happens as a result of exposure, that is, what the experiment is testing;
3. **Contextual data**, which situate exposure and outcomes historically, sociologically, environmentally, among others.

Depending on the context, much of these data may already be available to natural experiments, reducing costs and data collection burden. In the IMPACT natural experiment-based evaluation, we relied on the existing programme and contextual data to understand exposure whilst we collected outcome data ourselves. However, elsewhere, the need to collect specific data may not be required and in previous large-scale natural experiments, exposure, outcome and a good deal of contextual data already existed, saving significant costs.⁸

At the very least, when a significant shock occurs, programme managers should pause and reflect on what critical questions a natural experiment might address and what data they already have, and consider what natural experiment approaches can be applied. For example, the RSS baseline and endline data, although not used by the IMPACT natural experiment-based evaluation, could potentially provide timely and worthwhile insights, if the right exclusion criteria and stratification were applied.

Replicating some of the cost-reducing data collection approaches used in the IMPACT natural experiment-based evaluation, such as conducting interviews remotely by phone, may also be possible. However, the cost saving should not be overestimated, as one of the biggest cost drivers is the time taken to conduct primary data collection through surveys and/or interviews, which would be similar under any evaluation method of a similar scale. The risk of bias from relying on phone interviewing, which we evaluated, must also be considered.

RAISE THE PROFILE OF NATURAL EXPERIMENTS IN EVALUATION

In addition to the resourcing and planning challenges already mentioned, there can be a lack of awareness of what natural experiments are and a lack of appreciation of how they can add value. The recent recognition of natural experiments by the 2021 Nobel Prize in Economics⁹ may help to raise awareness of their value; however, until there are more and well-publicized applications of natural experiments in evaluation, natural experiments will remain underappreciated in this field.

In this regard, the IMPACT study was pioneering for two reasons: first, the original terms of reference specified natural experiments as a methodological approach of interest to IOM; second, when the pandemic occurred, IOM was able to request additional resources from the JI-HoA to learn from this extreme event. Had the IMPACT commissioning team not been as open to natural experiments, the IMPACT natural experiment-based evaluation would never have happened. Therefore, it is important that evaluation commissioners and evaluation partners consider natural experiments as a viable methodology and find ways to open the door to their use through a shift of mindset, flexibility in the terms of reference and use of funds to make the most of opportunities as they arise.

8 Loevinsohn, M. *Natural Experiments: An Under-Appreciated Evaluation Resource?* CDI Practice Paper 2 (Brighton, 2013).

9 Philip Ball, *Nobel-winning 'natural experiments' approach made economics more robust*, *Nature* (Berlin, 2021).

CONCLUDING REMARKS

Natural experiments clearly have a role to play in evaluations, providing a unique way to understand a programme or intervention when it is under stress. They are tools to learn about resilience from real-world events, providing insights into programme effectiveness that would not otherwise be available.

Furthermore, by taking a human-centred rather than programme-centred approach, we can understand the relative importance that interventions have for stakeholders, whose resilience is the main concern of programmes. As the IMPACT natural experiment-based evaluation shows, seizing the opportunity that extreme events offer can complement more traditional evaluations and widen their perspectives.

Of course, planning for unexpected events will always be challenging, but there is a degree of predictability to any event that may be of interest to a programme. In this context, “extreme events” do not necessarily need to be shocking, increasing opportunities for natural experiment approaches to be applied. For example, changes to key policies may also disrupt or enable programmes and affect the people they assist. Natural experiments can also be implemented on a smaller spatial scale than the IMPACT natural experiment-based evaluation. For example, assessing the consequences of an extreme event in an Ethiopian area might provide illustrative findings of wider interest. Many opportunities exist to apply natural experiment approaches.

Evaluators and those who commission evaluations can make use of the opportunities that extreme events provide by being more open to considering natural experiments – accompanied by good programme data and flexible budgets – therefore gaining valuable insights from disasters and crises that would not otherwise be available.

International Organization for Migration
Regional Data Hub for the East and Horn of Africa
Sri Aurobindo Avenue, off Mzima Spring Road, Lavington
P.O. Box 55040-00200
Nairobi, Kenya

🏠 <https://eastandhornofafrica.iom.int/regional-data-hub>
🐦 <https://twitter.com/RDHRONairobi>
✉️ rdhronairobi@iom.int
☎️ +254 20 422 1000

