2020

DTM
IOM DISPLACEMENT TRACKING MATRIX

STABILITY INDEX - DTM Report

IOM, West and Central Africa

MEASURING PERCEPTIONS OF STABILITY IN NIGERIA AND CAMEROON

INTERNATIONAL ORGANIZATION FOR MIGRATION |

International Organization for Migration (IOM)
The UN Migration Agency

PUBLISHER

International Organization for Migration,

Regional Office for West and Central Africa, Department of Emergency

Dakar, Senegal

RODakarEPCTeam@iom.int or rodakar-dataresearch@iom.int

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KEY FINDINGS

NIGERIA

Stability Index Score 69/100

Security Score: 64/100

Social Cohesion Score: 79/100

Service Access Score: 62/100

5 most influential indicators on stability: Quality of daily public life (social), Security incidents (security), Security concerns (security), Freedom of movement in the community (security), Access to and availability of goods in the local markets (service).

- In general, 13 per cent reported expecting to move again in the next six months.
- Of those, 93 per cent of locations reported experiencing a security incident in the last six months. In 69 per cent of these cases, it was a very recent security incident
- In terms of security concerns, 94 per cent were either "very worried" or "somewhat worried" about security.

CAMEROON

Stability Index Score 71/100

Security Score: 86/100

Social Cohesion Score: 79/100

Service Access Score: 53/100

5 most influential indicators on stability: Quality of daily public life (social), Freedom of movement (security), Access and availability of goods in the local markets (service), Access to health centers (service), Presence of public sector employees (service).

- In general, 6 per cent reported expecting to move again in the next six months.
- Of those, 65 per cent of locations reported experiencing a security incident at least in the last six months.
- In terms of security concerns, 75 per cent of locations reported being either "very worried" or "somewhat worried" about the security situation.

I. INTRODUCTION

Since 2014, the Lake Chad Basin crisis has affected some of the world's most vulnerable people in Nigeria, Cameroon, Niger and Chad. The crisis, caused by a complex combination of non-state armed groups, the onset of violent communal clashes and climate change, has led to the forced displacement of nearly 4.5 million people, including internally displaced persons (IDPs), returnees and refugees.[1]

A report by IOM's Displacement Tracking Matrix (DTM) identified 4.2 million displaced individuals in Nigeria, Chad, and Cameroon in 2019. However, as the protracted conflict begins to subside in some regions, there are a growing number of displaced persons returning to their towns and villages of origin. The DTM noted a 77 per cent increase (800,000 individuals) in the number of returnees in 2019 compare those reported in 2016. The total population of returnees represents 41 per cent of the total population affected by displacements in the Lake Chad Basin. This growing trend towards return movements calls for a more thorough investigation to better understand the returnee populations in the regions and communities of origin. It is also highlighting the importance of assessing the return intentions of individuals who are still displaced in order to provide the necessary assistance for the reintegration of those who have already returned to their area of origin, as well as to those who intend to return in the near future.

The stability index identifies 'pockets of stability' to target the needs of the large proportion of returnee populations and analyzes which factors are relatively more impactful on the decisions of returnees to remain in place or to move. Furthermore, it is an essential tool in designing assistance for durable solutions as well as a new instrument to inform transition and recovery with appropriate programming priorities.

This report presents the results of the Stability Index data collection activities conducted in Nigeria and Cameroon in August and September 2019.

II. DISPLACEMENTS AND RETURNS IN NIGERIA AND CAMEROON

IOM's Displacement Tracking Matrix (DTM) globally serves as a key resource for population figures on internally displaced persons, migrants and returnees. The DTM is a system that tracks and monitors displacement and population mobility. It is designed to regularly and systematically capture, process and disseminate information to provide a better understanding of the movements and evolving needs of displaced populations, whether on site or en-route. DTM data gathers granular data, providing detailed locality description for the displaced population. At the end of 2019, the DTM was active in 73 countries, obtaining information from more than 140,000 key informants on displacement and migration movements.

To fulfil the need for accurate and up-to-date information on displacement and human mobility resulting from the highly complex interactions between violence generated by Non-State Armed Groups (Boko Haram, The Islamic State of West Africa Province), communal clashes and climate change in the Lake Chad basin, the IOM activated its DTM in Nigeria in July 2014, Chad in January 2015, and Cameroon in November 2015. In all three countries, DTM plays a key role in informing humanitarian and government actors about the location, number and profile of displacement affected populations, and thereby enables a targeted humanitarian response.

In Nigeria, the escalation of violence between all parties in north-eastern region in 2014 resulted in mass displacement and deprivation. To better understand the scope of displacement and assess the needs of affected populations, IOM began implementing its DTM programme in September 2014, in collaboration with the National Emergency Management Agency (NEMA) and relevant State Emergency Management Agencies (SEMAs). The main objective of initiating the DTM programme is to provide support to the Government and humanitarian partners by establishing a comprehensive system to collect, analyze and

[1] https://www.iom.int/news/new-report-outlines-displacement-human-mobility-figures-lake-chad-basin

disseminate data on IDPs and returnees for ensuring effective assistance to the affected population. In each round of assessment, staff from IOM, NEMA, SEMAs and the Nigerian Red Cross Society collate data in the field, including baseline information at Local Government Area and ward-levels, by carrying out detailed assessments in displacement sites, such as camps and collective centers, as well as in sites where communities were hosting IDPs at the time of the assessment. In response to the evolving conflict and displacement dynamics, DTM has been strategically re-positioned in recent years to serve as an inter-cluster tool in order to continue providing actionable and relevant information to enable humanitarian partners to provide timely and well-targeted assistance.

Nigeria hosts the great majority of the identified affected population (82%). This may be explained by the fact that Non-State Armed Groups have been active in the north-eastern part of the country for much longer than in neighbouring countries and the large number of people that live in this region. Nigeria is also the most affected among the countries in terms of attacks and violence. As a result, there are more than two million persons internally displaced in the North East across six states. The highest number of displaced households are in Borno, Adamawa and Yobe states, and the majority are living in host communities. In addition, Non-State Armed groups controlled large swathes of territory in Nigeria, which was not the case in the neighbouring countries. Certain areas have been deserted and their entire population displaced in other areas that are considered safer.

In Nigeria, violent communal clashes between members of semi-nomadic herder communities and native farmers have resulted in at least 3,641 deaths in the past three years, whereof 57 per cent occurred in 2018, and about 300,000 individuals were forced into displacement.[2] Villages were burned, and food supplies were stolen by attackers. These clashes are mainly linked to competition over resources: water, land and pasture. Herdsmen require grazing land for their livestock and farmers require vast land for agriculture. Large swaths of land have been fenced off because of the conflict and agribusiness activities have taken over some of the former grazing land. However, before the intensification of these clashes, a harmonious relationship existed between both communities. Environmental factors such as soil degradation and desertification have increased tensions between farmers and herdsmen and resulted in increased conflict situations. Years of peaceful coexistence have given way to violence and forced displacement.

These clashes further indicate that reasons for displacement in the Lake Chad Basin region are very much interlinked. Factors related to climate change are feeding into communal clashes as environmental conditions drive herders south in the dry season for pasture, and the conflict is severely affecting the relationship between different communities in the region. Community clashes also include clashes over land ownership, as well as religious clashes and associated political clashes (an upsurge in violence could affect national elections scheduled for February 2019) in mixed ethnoreligious tense areas.

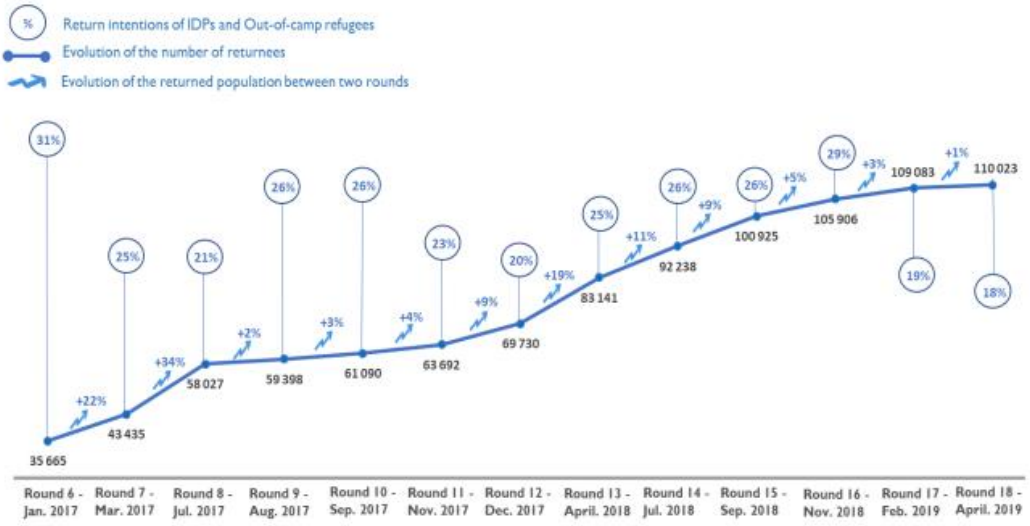
In Cameroon, displacement in the Far North region, mainly due to the conflict with Non-State Armed Groups remains complex. Cameroon has also been affected by the movement of the Islamic State in West Africa, increased attacks and incursions into Nigeria, Cameroon and neighbouring countries have resulted in displacement from areas of conflict and violence. The DTM was first launched in November 2015 with the aim of providing regular, accurate and up-to-date information on displaced populations in the region. The results from DTM Cameroon can be considered alongside those of DTM Nigeria for an overview of the movements in the region. DTM data collected includes the number of displaced persons, periods of displacement, reasons for displacement, types of housing and population data on displaced populations.

With the DTM, IOM continues to provide critical information on displaced populations allowing the prioritization of humanitarian assistance. The DTM is implemented at several geographical and administrative levels in order to obtain the most accurate information possible. This includes evaluations at the level of departments, districts and villages. As part of its DTM, IOM has incorporated a household questionnaire including a Return Intentions Survey (RIS) to provide information on the return intentions of IDPs and out-of-camp refugees. In 2019, DTM Cameroon's report on Return Intentions collected information on future

[2] DTM reporting using local authorities as a source

intentions to derive a better understanding of the decision-making process of displaced households in terms of a future return, as well as the conditions necessary for a sustainable return.[3]

Evolution of Return Intentions in Cameroon from January 2017 to April 2019



Since January 2017, the number of returnees has been increasing steadily, and the results of the evaluation show that the return intentions of the displaced populations change from one period to another and evolve according to the different events that occurred between these periods. The improvement in the security situation in some localities is considered as the main reason for return which also enabled DTM operations in each round. Return intentions have decreased since the beginning of 2019 (ranging from 29% to 18%), as several incursions of armed groups have been observed in some departments and localities of origin questioning the decision of many displaced persons to return to their place of origin. In addition, throughout the Far North region, 49 localities, where attacks have pushed people to move, are still empty, reflecting the importance of security for the return of displaced populations to their place of origin.

Displaced populations are increasingly leaving their locations of displacement to return to their areas of origin or settle elsewhere. In Cameroon, 68 per cent of return movements were recorded between 2014 and 2017, 31 per cent in 2018, and 1 per cent between January and March 2019.[4] With the DTM, IOM continues to provide critical information on displaced populations allowing the prioritization of humanitarian assistance. The DTM is implemented at several geographical and administrative levels in order to obtain the most accurate information possible. This includes evaluations at the level of departments, districts and villages. As part of its DTM, IOM has incorporated a household questionnaire including a Return Intentions Survey (RIS) to provide information on the return intentions of IDPs and out-of-camp refugees. In 2019, DTM Cameroon's report on Return Intentions collected information on future intentions to derive a better understanding of the decision-making process of displaced households in terms of a future return, as well as the conditions necessary for a sustainable return.

Scope and Objectives of the Stability Index

The aim of this stability index is to better understand the conditions of return by identifying 'pockets of stability' in areas of high return to then support appropriate stability and transition programming. The stability index can also be useful to assess the sustainability of return, identify gaps and better program for durable solutions and recovery.

[3] https://displacement.iom.int/system/tdf/reports/IOM_Rapport_RIS_Cameroun_Extreme-Nord_RD18_EN_20190614.pdf?file=1&type=node&id=5913
[4] https://displacement.iom.int/system/tdf/reports/IOM_Rapport_RIS_Cameroun_Extreme-Nord_RD18_EN_20190614.pdf?file=1&type=node&id=5913

The stability index addresses the following questions:

- How to identify pockets of stability among return areas?
- How to program for 'pockets of stability' to ensure sustainability of returns?
- What are the conditions in return areas and how do they evolve over time?

This tool serves as a measure of stability in return areas to enable partners to better develop strategies, plan resources and operations in vulnerable areas for coherent interventions that link humanitarian, recovery and stabilization in protracted contexts.

III. METHODOLOGY & INPUT DATA

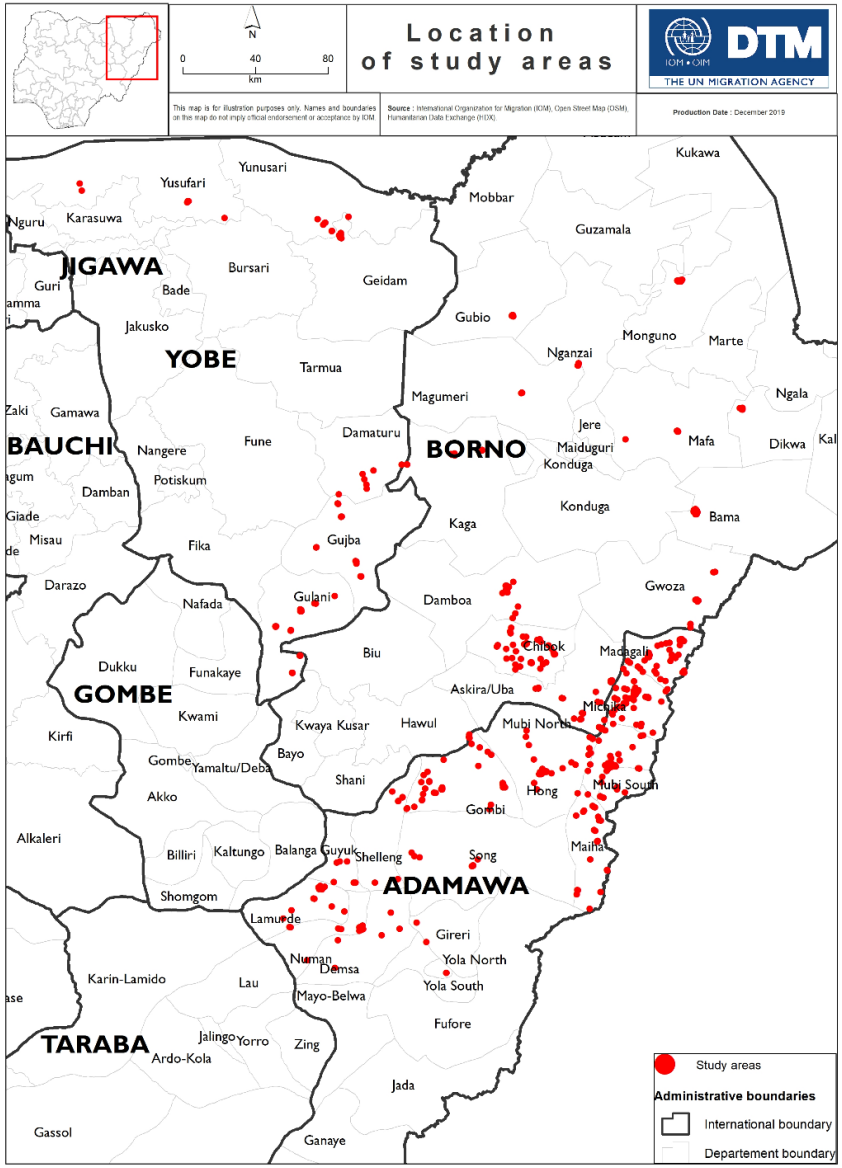
The stability index is based on a methodology very similar to a "standard" mobility tracking DTM exercise. The tool consists of a manageable number (21) of indicators collected periodically for each of the locations registered in the DTM (locality, site) that report returnees, through key informant interviews.

Selection of Survey Locations and Coverage

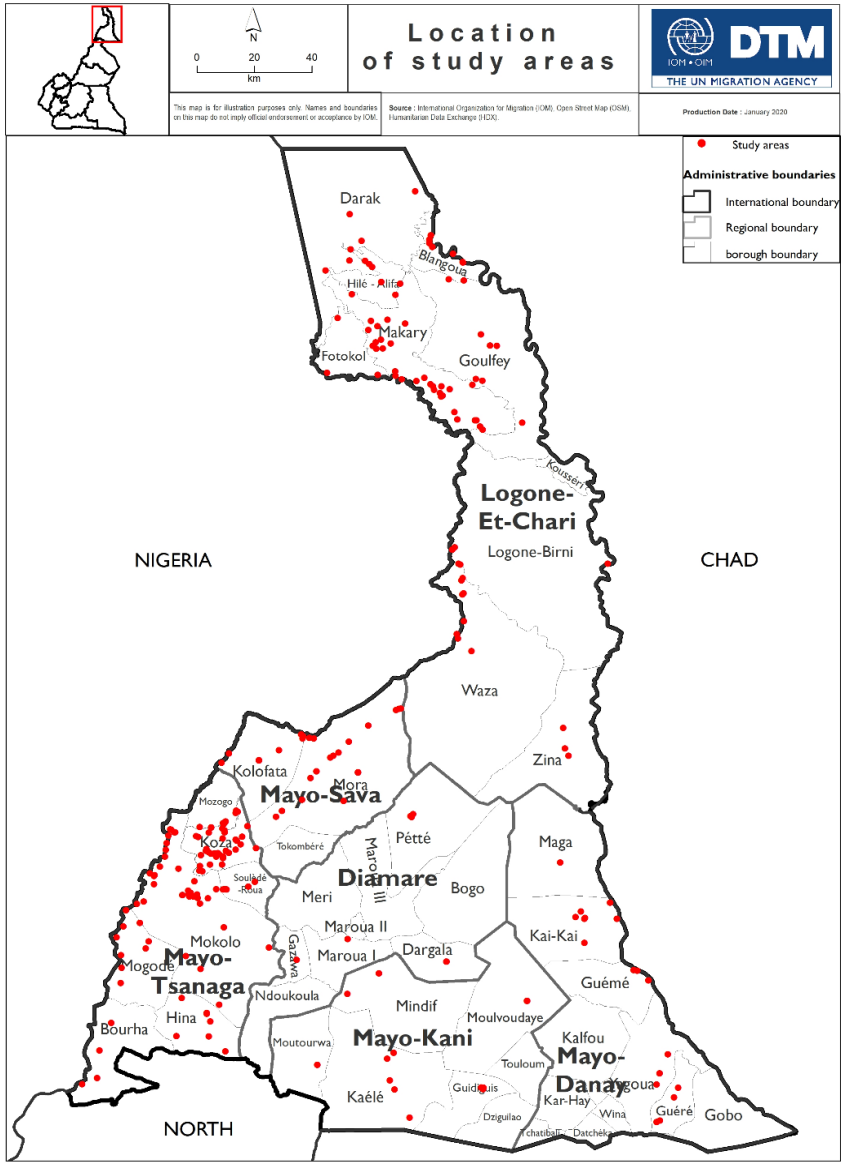
The survey locations were chosen based on number of returns relative to the overall number of departures observed for that area. Areas that reported significant numbers of returns and were accessible at the time of the survey were chosen to be included in the study.

In Nigeria, the first round of the stability index was conducted in August – September of 2019 and 36 Local Government Areas (LGAs), 167 wards and 521 locations/villages were surveyed. Of these locations, 294 were in Adamawa, 159 were in Borno and 78 were in Yobe. In September 2019, DTM conducted the returnee household survey for returnees across the three North Eastern States of Adamawa, Borno and Yobe. During this assessment, 40 LGAs consisting of 201 wards were assessed. Only locations where persons were tracked to have relocated back to their place of habitual residence prior to the displacement were included in this assessment. The total number of returnees in Nigeria is 264,854 households and 1,619,010 individuals.

In Cameroon across six divisions and 31 subdivisions, a total of 314 locations were surveyed. In August 2019, IOM conducted key informant interviews in each return location (314 in total) across the six divisions of the Far-North region in Cameroon. As such, only locations where persons were tracked to have returned to their place of habitual residence prior to forced displacement were included in the assessment. There are 116,979 returnees in the Far-North region of Cameroon (DTM, mobility tracking round 20, December 2019).



Map 1: Survey locations across the Northeast region, Nigeria



Map 2: Survey locations across the Cameroon

Objective and measurement indicators

The methodology of the stability index aims to capture both the relevance of each of the indicators (individual survey questions) to returns in general, and to understand how each indicator contributes to overall perceptions of stability in the community (referred to as our "dependent variable"). The analysis looked at how the dependent variable correlates with the indicators to ascertain what is most important in terms of driving the data for "stable returns".

The overall score (1-100) measures the general stability of the return area. The tool has 21 indicators for each of the selected locations. Specific indicators were selected based on recent quantitative and qualitative research on the dynamics of post-conflict returns.

Measurement indicators were grouped into three categories for a more thematic analysis. The three categories are:

a) livelihoods and basic services
b) social cohesion
c) perceptions of security

These categories are then combined based on the weight of each variable to create a location stability score for each locality.

Interviews were conducted in each return location identified with one and two key informants representing different communities within the same area.

Each survey question has a range of available answers, each of which are linked to a micro-score for the question (ranging from 0-5). For example, for a question about access to primary school, there are potential answers ranging from "yes, members of community have access to primary school and it is open and functioning" (score of 6) to "there is no primary school in our community and children cannot go to school nearby" - which is less positive (0).

Additionally, it is important to note that, this index purposefully does not focus on the relationship between population of returnees and instead focuses on the "perception of stability" of returnees. This intentional exclusion is due in large part to a highly sensitive and unstable political situation, in which subsets of the population have been encouraged or even directed by various entities to return to locations, and unreliable post-conflict population data.[5] Finally, this index is interested in calculating the durability of existing returns, from a quality perspective, and not necessarily the magnitude of those returns.

Principal Component Analysis

Principal Component Analysis (PCA) is a method of assigning weights to the selected indicators to show correlations and outcomes, by grouping (our components), which represent the most robust estimation of how much each of the variables contributes to our outcome of interest, and how much of the variation in the data our group on the whole explains. While each of the selected indicators are important to the context of returns, PCA is particularly useful for demonstrating the impact of different indicators on each other. For example, while availability of electricity and access to health care are both individually important factors, they also heavily influence each other (this is called collinearity). PCA helps to see beyond the collinearity and drives at influence in a more coherent way. This is important because it addresses the complex nature and conditions of return.

At its core, Principal Component Analysis (PCA) helps to determine which indicators account for the greatest amount of variation in the data and shifts focus (and weighting) to ones that are important through dimensionality reduction.

[5] For example, the WorldPop data available for the Nigerian regions surveyed here was inconsistent, and at odds with existing DTM data.

One of the benefits of this is that each component (group of variables produced by PCA) gives the "weights" of each of our indicators. The larger the weight, the more important that indicator is to the overall score. The weight of the indicator directly correlates to its importance and the overall score. So, this has the property of creating a score for each location that is influenced both by how positively each location answered each of the survey questions, and by the weight assigned by PCA.

You can read more about PCA and our methods in Annex 3.

Indicators

There are 21 indicators in the survey and answers were collected for all of them. To create the index for Nigeria, 16 indicators, and 17 indicators were used to create the index for Cameroon. For both Nigeria and Cameroon, there were several indicators that were too collinear (heavily influencing one another) at the outset to include in the analysis or did not have any variability and therefore could not inform the model. To reduce the risk of overfitting the model i.e. using too many indicators relative to the number of observations, they were eliminated before the PCA was run.

For Nigeria, the omitted indicators were "identity documents", "access to legal remedies", "social cohesion in the community", "electricity access", and "participation in public affairs". The variables: "participation in public affairs", "access to legal remedies", and "access to identity documents" were also taken out. They had almost no variation, with 85 – 98 per cent answering the question the same way (positively), meaning that these questions do very little to help answer questions about how conditions impact the stability of return.

Similarly, for Cameroon, the omitted indicators were "access to ICTs", "cultivation of farmland" and "equal access to services". The ICT variable was extremely correlated with several other variables and generated ambiguous and unclear results, and so was eliminated for clarity. "Equal access to services" had a 100% positive response rate ("yes, we have equal access to services"), which is interesting by itself, but does not provide any useful variation to our dataset.

NOTE: The elimination of certain variables does not indicate that any of these variables are not theoretically significant, or important to the lives of returnees. However, under this set of analytical constraints, they did not help to explain any of the variation in the data, and so were not used to help us understand the specific context of "stability of returns."

Limitations

As stated in the methodology, interviews were conducted in return locations with one or two key informants. While this method has the advantage of allowing enumerators to cover of many localities over a short period of time, but its main limitation is representation. This research design relies on the key informants, or a few representatives who may convey the views of a potentially important community. Interpreting the results of this index should be considered simultaneously with the notion that while the questions were formatted to capture the most likely answer despite representational issues, key informants and the circumstances of the survey may not always capture the experiences of all groups in a community.

In addition, there are some data anomalies and discrepancies that exist within the dataset, but were not removed, as it could not be verified if they were an error or the true perceptions of the community. There were several locations that reported exceptionally high scores, but also reported that community members felt as though they had to move again in the next six months. This brings to light some possible explanations that will be addressed in upcoming rounds. Those explanations and corresponding issues include:

- Enumerator and/or key informant misinterpretation of the question. Future rounds will focus on displacement, and less on the open-ended "will you move", which could possibly be misinterpreted.

- More time for data-verification when anomalies or discrepancies are noticed in the dataset. For example, high scoring places indicating they intend to move, or high scoring places with negative comments.

None of the outlier data was removed from the dataset to preserve the integrity of the results of the survey and keep from assuming the intentions of either enumerators or key informants. All reported results include the full scope of the survey respondents.

IV. RESULTS

Overview

Overall, both Nigeria and Cameroon scored a stability index of an average of 70 out of 100. Borno State, in Nigeria, which has experienced the brunt of the insurgency in the last 10 years, reported high instances of security incidents and concerns, as well as a lack of access to services, but fewer locations in Borno reported anticipating having to move again in the next six months (dependent variable).

STABILITY INDEX AVERAGE BY COUNTRY AND STATE/DEPARTEMENT	
NIGERIA (by State)	69
Adamawa	66
Borno	68
Yobé	83
CAMEROON (by Département)	71
Diamaré	68
Logone-Et-Chari	62
Mayo-Danay	74
Mayo-Kani	81
Mayo-Sava	68
Mayo-Tsanaga	78

By contrast, fewer reported security incidents in Adamawa State (a population not as accustomed to frequent spates of violence) tended to illicit a larger reaction, with populations reporting high levels of security concerns and higher reported instances of populations anticipating having to move again. This suggests a certain attitude, or fatigue, of those who have been affected by insecurity and conflicts in parts of the Northeast. They are less influenced (or displaced) by security incidents than in other parts of the country.

In Nigeria, 13 per cent (70 locations out of 531 surveyed) reported expecting to move again in the next six months. Of those, 93 per cent (65 locations) reported experiencing a security incident in the last six months. Furthermore, of those 65 locations, 45 per cent reported a very recent security incident. Additionally, when asked about security concerns, 94 per cent (66 locations) of locations where key informants also reported that populations would move again, also reported that they were either very worried (45 locations), or somewhat worried about security. Lastly, 75 per cent of these locations also reported having a security presence in their location. That said, the interpretation of this could be ambiguous, as we might expect locations that report more conflict to also have a higher density military presence. In future rounds, this indicator will be divided into two distinct questions: one about military presence, and one about the consistent presence of a civilian police force.

In locations that reported expecting to move again in the next six months, 82% reported at least some illegal occupation of land in their location. By contrast, 55 per cent of locations that reported not expecting to move reported that there was no illegal occupation of land. Locations where populations report expecting to move reported approximately 30 per cent more illegal occupation of land than the total sample, and 35 per cent more than locations not expecting to move, indicating that this is a major issue affecting returnees to their locations of origin.

In Cameroon, six per cent (20 locations) reported expecting to move again in the next six months. This is relatively expected given that the conflict in Northeast Nigeria is somewhat more protracted and severe. In Cameroon 65 per cent of locations that reported populations expecting to move also reported that they had experienced a security incident in the last six months. However, an additional 10 per cent, i.e. total of 75 per cent of locations reported being either "very worried" or "somewhat worried" about the security situation. By contrast, only 13 per cent of locations surveyed in all of Cameroon reported any security incidents in the last six months, and 40 per cent reported being either very worried or somewhat worried about security.

Ranking of indicators

Because of the differing country contexts for Nigeria and Cameroon, and the fundamental differences in the initial nature of displacement, the ordering of the indicator's influence (on the stability index calculation) and weighting is different for Nigeria and Cameroon. The tables below show the indicators used to measure the stability index, ordered by their impact on the feeling of stability (and therefore influence on the calculation of the stability index).

Nigeria

Ranking	Impact	Indicator (category)
Top Tier	High	• Quality of daily public life (social) • Security incidents (security) • Security concerns (security) • Freedom of movement in the community (security) • Access to and availability of goods in the local markets (service)
Secondary Tier	Medium	• Tension in the community (social) • Access to health centers (service) • Illegal occupation of land (social) • Access to ICTs (service) • Access to primary school (service)
Bottom Tier	Low	• Cultivation of farmland (service) • Destruction of habitats (service) • Presence of public sector employees (service) • Access to water (service) • Equal access to services (social) • presence of security forces (security)

Cameroon

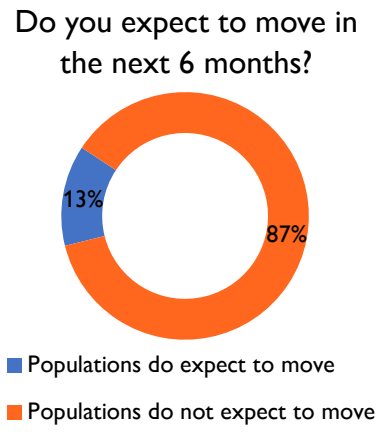
Ranking	Impact	Indicator (category)
Top Tier	High	• Quality of daily public life (social) • Freedom of movement (security) • Access and availability of goods in the local markets (service) • Access to health centers (service) • Presence of public sector employees (service)
Secondary Tier	Medium	• Access to electricity (service) • Community participation in public affairs (social) • Security concerns (security) • Access to primary school (service) • Equal access to services (social) • Access to drinking water (service)
Bottom Tier	Low	• Destruction of habitats (service) • Access to identity documents (social) • Security incidents (security) • Social cohesion (social) • Presence of security forces (service) • Illegal occupation of land (social) • Tension in the community (social)

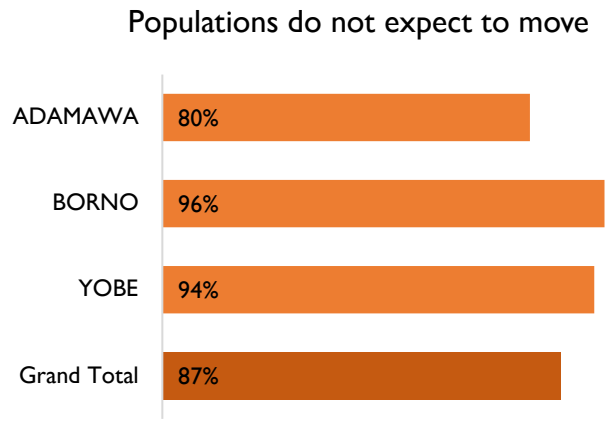
In general, for Cameroon, the ranking was similar with some slight differences. Theoretically and contextually for each country, these results are somewhat unsurprising. Nigeria is still precariously balancing a return to normal daily life with the possibility that non-state armed groups could disrupt their returns, while Cameroonian returnees tend to be more focused on their access to services like healthcare, durable goods, and a functioning public sector. This split may indicate an interesting opportunity to differentiate between locations that need more development assistance versus humanitarian intervention.

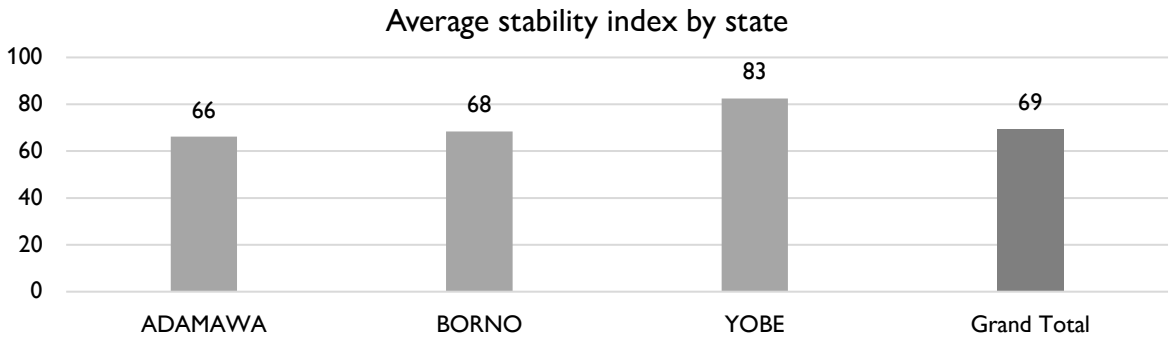
Nigeria

The first round of the stability index revealed that in 87 per cent of the assessed locations, local populations do not expect to move in the next six months. This highlighted certain 'stability pockets' for which assistance and programming can be provided. The average total stability score (a simple average of locations surveyed per division) for the three states suggest that Yobe (87/100) ranks the highest followed by Borno (68/100) and Adamawa which is the least stable (66/100).

NIGERIA - PERCEPTIONS OF STABILITY (BY STATE)







In the three states of Nigeria, the overall stability scores vary between 16 and 100 indicating a wide-ranging variety of conditions affecting returnees and their decisions. Mubi North and South in Adamawa have a relatively high stability scores (78 and 74/100, respectively) whilst Michika in Adamawa has the lowest stability score (average 31/100 for all surveyed locations).

The average service scores are lower than the average stability index across all three states. Although Yobe (69) scores the highest service score in comparison to Adamawa (62) and Borno (58). Conversely, the average social score is higher than the average stability index across all three states. While access to health care was the most influential service factor, social factors such as quality of daily life (social cohesion), presence of public sector employees and freedom of movement were most influential indicators.

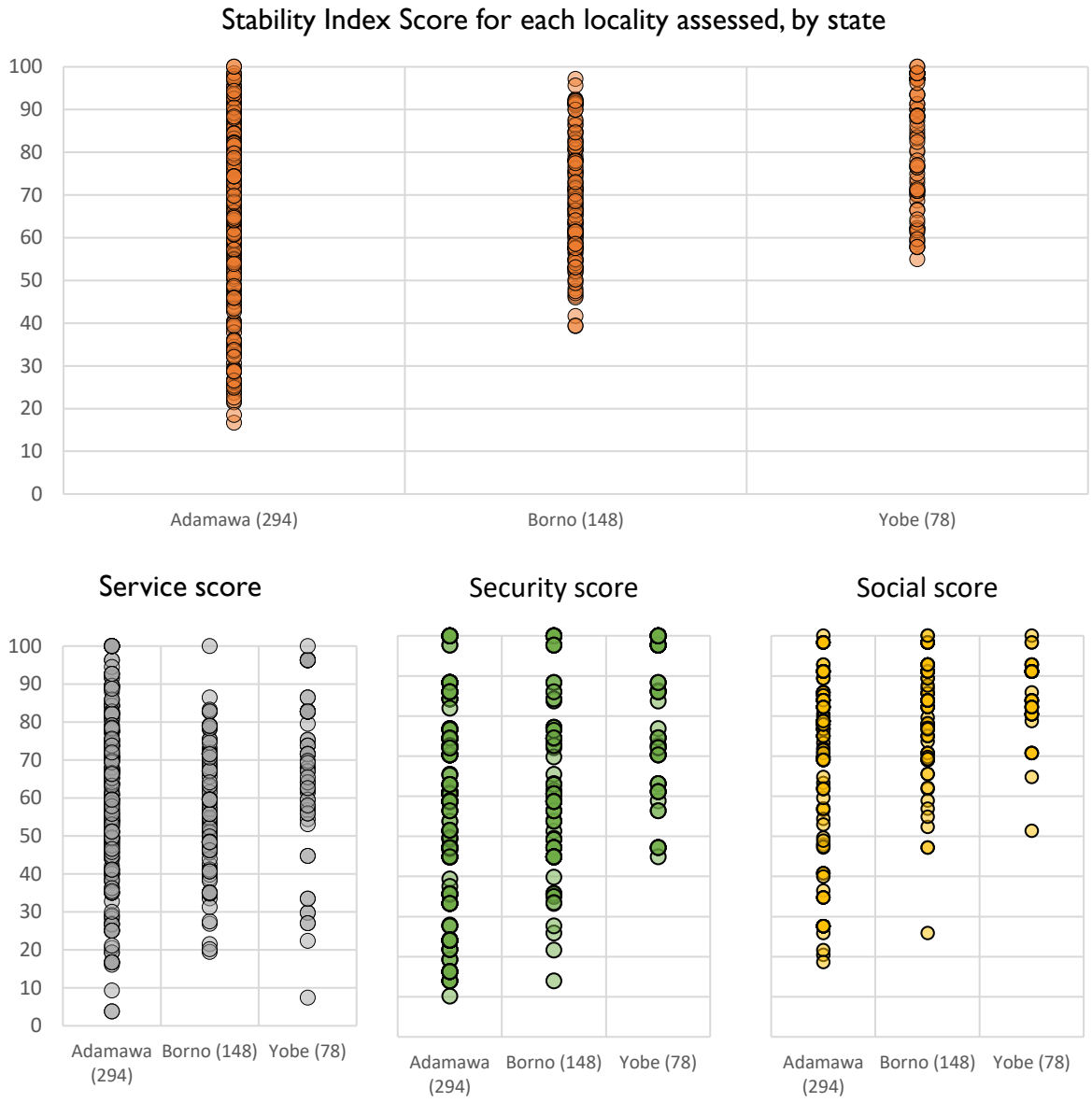
AVERAGE SCORE BY CATEGORY AND STATE IN NIGERIA

NIGERIA	*Overall Stability Score*	*Security score*	*Social cohesion score*	*Service access score*
Adamawa	*66/100*	*59/100*	*75/100*	*69/100*
Borno	*68/100*	*63/100*	*84/100*	*62/100*
Yobe	*83/100*	*85/100*	*87/100*	*58/100*
AVERAGE	***69/100***	***64/100***	***79/100***	***62/100***

Results divided into the three categories (Security, Social, Service) are providing possible ways forward for future intervention to support stable returns. In parallel with the main indicators impacting the feeling of stability, this

analysis can provide clear actions toward more impactful transition, recovery and development actions. For instance, three of the main indicators (highest impact on feeling of stability) are security related (Security incidents, Security concerns and Freedom of movement in the community). With relatively low security stability scores in Adamawa (59) and Borno (63), these indicators should be considered when working in these two States. In a similar way, the high impact of the indicator "Access to and availability of goods in the local markets" and low score of Yobé on the service category (58) should lead to further developing service aspects in this State.

Below charts are displaying the 520 localities assessed in Nigeria by State and by Stability Index Score (out of 100) as well as service, security and social scores.



Selected Location Case Studies in Nigeria

This approach also provides specific insights into community dynamics and needs at a location level and helps to highlight which types of programming might have the biggest impact. Below are several case studies from various Nigerian locations, which each highlight a different community need, and how it may play into the decisions of returnees to stay or leave.

	Overall Stability Score	*Security score*	*Social cohesion score*	*Service access score*

Mubi North, Adamawa	*78/100*	*73/100*	*89/100*	*68/100*

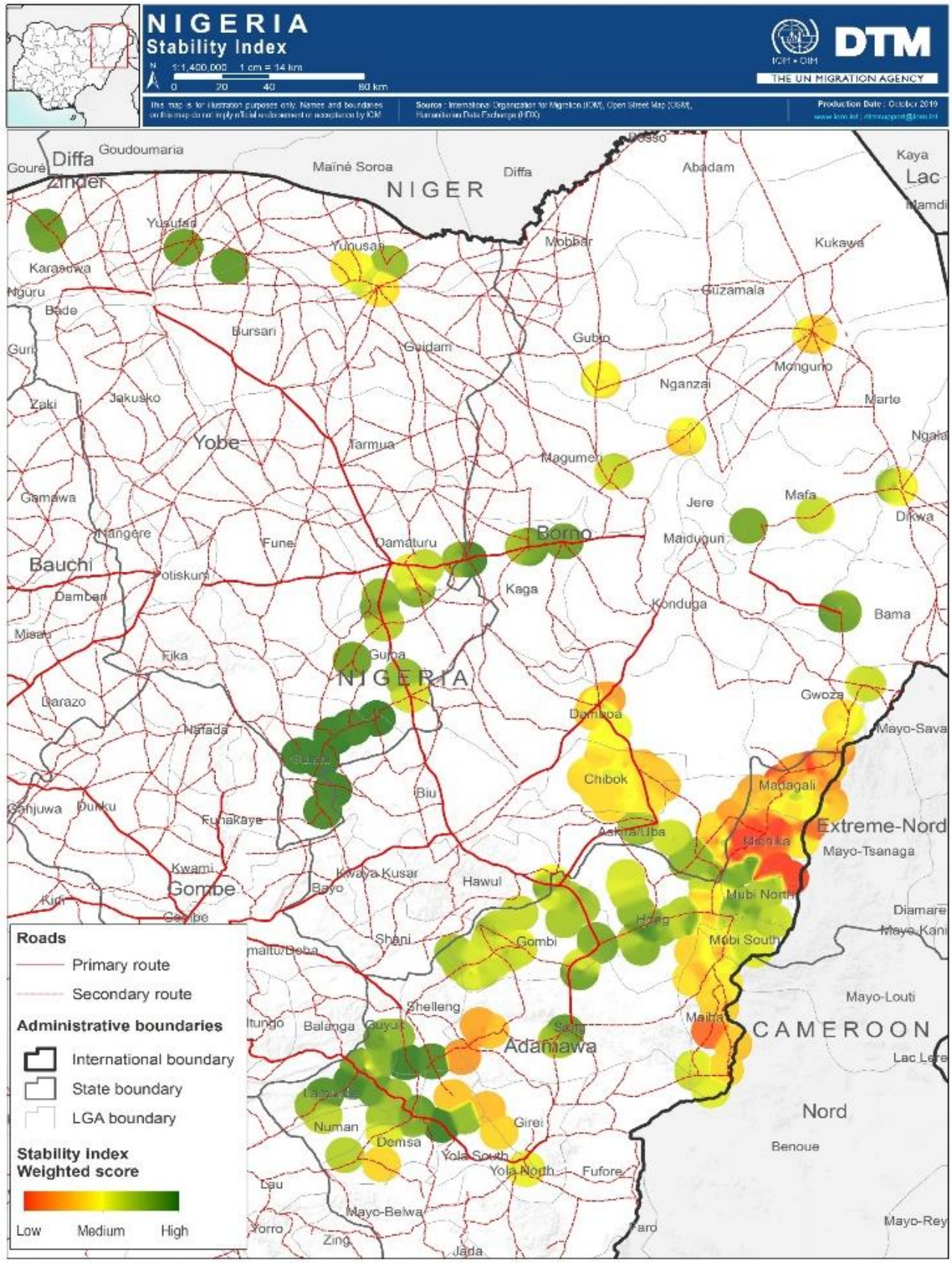
Mubi North in Adamawa scored a high stability score of 78 out of 100, reporting relatively high scores in both security (73/100) social cohesion (89/100), and access to services (68/100). In Mubi North, key informants suggested that none of the estimated 101,275 returnees reported expecting to move again in the next 6 months. However, despite this high stability score, there are key opportunities for programming. Survey data shows that all 27 sites in Mubi North reported that access to drinking water was either absent or irregular. In addition to improving drinking water access, programming to improve circulation of goods in the local market and reconstruction of destroyed homes are key areas for targeting.

Monguno, Borno	*Overall Stability Score*	*Security score*	*Social cohesion score*	*Service access score*
	56/100	*53/100*	*80/100*	*46/100*

Monguno in Borno state reported the lowest overall average stability score of 56 out of 100 (across seven surveyed locations in Monguno). Of the three categories, it scored poorly in terms of the services score (46/100) and security score (53/100) but comparatively better in the social score (80/100). Even so, of the 41,283 returnees, none expected to move in the next six months. The positively reported social indicators include participation in public affairs and equitable access to services. However, across the seven assessed locations in Monguno, security incidents were reported in the last six months, concerns for security were high and unanimous and no security presence was reported. Relatedly, all locations reported that more than 50 per cent of the houses were damaged and no re-construction was ongoing. In addition to these items, main areas for programming include increasing access to primary education, health centre facilities, and markets.

Chibok, Borno	*Overall Stability Score*	*Security score*	*Social cohesion score*	*Service access score*
	50/100	*48/100*	*84/100*	*49/100*

Chibok in Borno State reported an average stability score of 50/100. It scored poorly in terms of services (49/100) and security (48/100) but reported a relatively high (84/100) social score. It is worth noting that of the 30 locations assessed in Chibok none expected to move in the next six months despite almost all locations reporting a security incident in the last six months with high concerns for security and many locations reporting no government security presence. In terms of areas for programming, there was a demonstrable need for improved access to regular drinking water and improving supplies to the local market are important gaps.

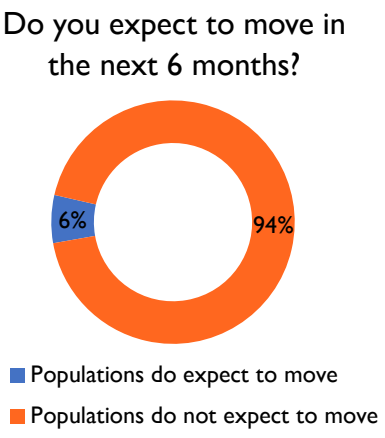


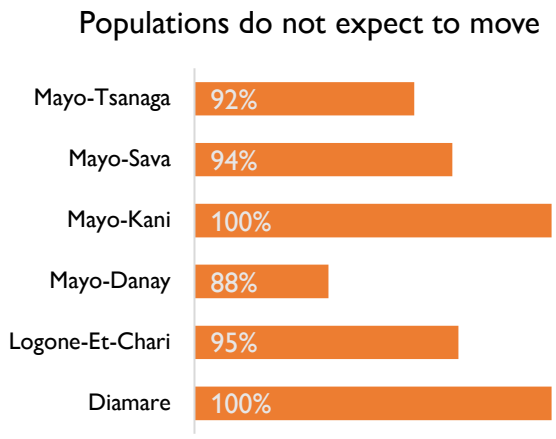
Map: Stability scores in assessed localities across the Northeast region of Nigeria

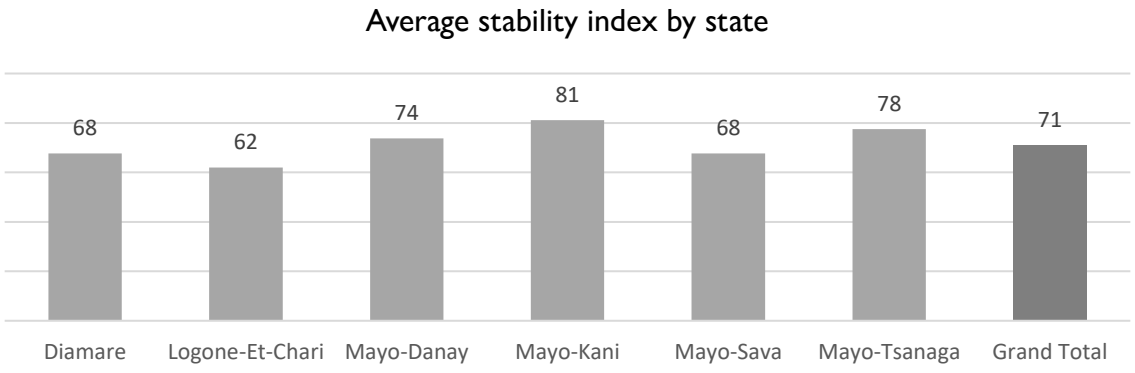
Cameroon

In 94 per cent of the assessed locations (out of 315 locations surveyed), local populations do not expect to move in the next six months. The overall average stability scores (a simple average of locations surveyed per division) in the six divisions vary between 62 and 81, which is generally positive trending but with some major concerns at the lower tier. The Mayo-Kani division (hosting the lowest proportion of returnees) has the highest stability score whilst the Logone-et-Chari division (hosting the largest proportion of returnees) has the lowest stability score. In this division, the relatively low stability scores in the Logone-Birni, Waza and Makari sub-divisions currently host the highest proportion of IDPs.

CAMEROON - PERCEPTIONS OF STABILITY (BY DEPARTMENT







The average livelihood and basic services scores are lower than the average stability index in all divisions. They are especially low in the Logone-et-Chari division (42) which hosts the highest proportion of returnees (32%) and for the Mayo-Sava division (41), hosting 31 per cent of the returnee population in the Far-North region.

In the context of Cameroon, access to health centres is relatively more important when compared with other indicators. This means that the perception of stability in an area depends more on whether the community has access to basic health services than on our other indicators in that category. In more than 30 per cent of the assessed villages in the Logone-et-Chari division for example, the communities do not have access to any type of basic health care services (either in their community or nearby). In the Mayo-Sava, Mayo-Tsanaga and Diamaré divisions, communities have access to basic health care services in more than 85 per cent of the assessed locations. Another indicator that is relatively more impactful in the Cameroon context is the presence of public sector employees in the assessed localities.

AVERAGE SCORE BY CATEGORY AND DEPARTEMENT IN CAMEROON

NIGERIA	*Overall Stability Score*	*Security score*	*Social cohesion score*	*Service access score*
Diamare	*68/100*	*49/100*	*99/100*	*62/100*

Logone-Et-Chari	*62/100*	*42/100*	*81/100*	*70/100*
Mayo-Danay	*74/100*	*49/100*	*90/100*	*83/100*
Mayo-Kani	*81/100*	*66/100*	*99/100*	*88/100*
Mayo-Sava	*68/100*	*41/100*	*83/100*	*81/100*
Mayo-Tsanaga	*78/100*	*64/100*	*87/100*	*84/100*
AVERAGE	***71/100***	***86/100***	***79/100***	***53/100***

The average social cohesion scores are higher than the average stability index in five out of the six divisions. The Diamaré department has the lowest average social cohesion score, a full 20 points lower at 62 (average) than any of the other divisions Although there are no security incidents in Diamaré division, the lack of public sector employees affects the services score negatively. Quality of daily life is the indicator with the highest impact on the social cohesion perception scale. In more than 77 per cent of all assessed locations in Cameroon, key informants reported that streets are active, and residents can carry out daily activities without worry. However, in more than 80 per cent of the assessed localities in the Diamaré division (representing 9 localities), key informants reported that the situation is tense and that there are very few people in the streets.

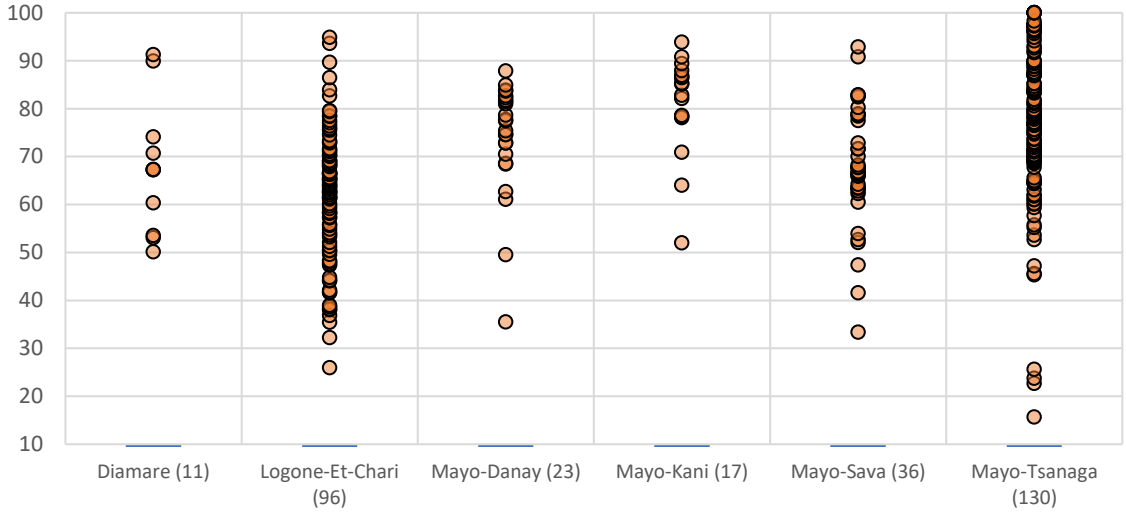
Another indicator that is comparatively more impactful is community members' participation in public affairs. This indicator was defined by asking key informants if there were one or more organized bodies allowing residents to participate in public affairs (CSO, unions, committees, social gatherings etc.). Answers were relatively positive in most of the 314 locations surveyed. In the Logone-et-Chari division though, many key informants noted that community members reported that there are none or very few bodies allowing them to participate in public affairs. In addition to this concern, the main programming needs for Logone-et-Chari include access to regular clean drinking water, provision of goods in the market and the public sector services. Despite Logone-et-Chari's low overall score on the stability index, nearly all (91 out of 96) assessed locations reported that they would not move in the next six months. Even though the poor conditions are not necessarily driving secondary displacements, programming needs in the area should be addressed to ensure that the conditions of return improve and can be durable.

Overall, the average security scores are higher than the total average stability index score in all divisions. This is correlated with the latest DTM mobility tracking assessments highlighting that more than 46 per cent of the returnees moved back to their localities because they perceived these areas to be secure. This percentage is especially high in the Mayo-Sava (55%) and Logone-et-Chari (68%) divisions where the vast majority of the returnees expressed an improvement in the security situation in the return areas as the primary factor having influenced their decision to return (DTM round 20, December 2019.) Access to arable land in the return areas is cited as the second most important factor influencing the decision to return. Among the displaced populations reporting that they do not expect to return to their areas of origin anytime soon, fear and trauma related to the on-going violence and hostilities in the Far-North region followed by the perception of security in their current areas of displacement have been cited as the major factors preventing returns (Return Intention Surveys, October 2019.)

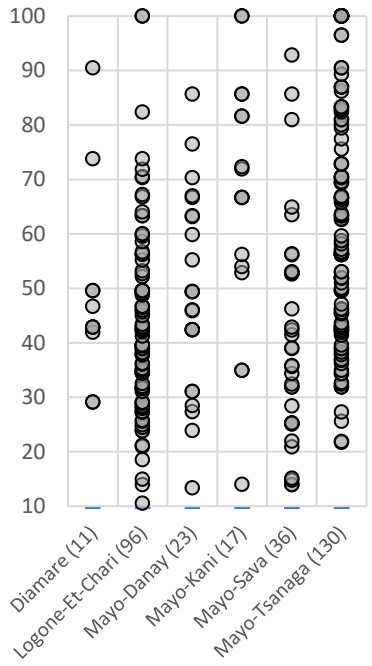
Another influential indicator was the freedom of movement, which asked how comfortable community members are moving around for day-to-day activities. In more than 85 per cent of the assessed locations, key informants reported that there are currently no or limited restrictions on residents' movements. In 11 localities of the Logone-et-Chari division and 6 localities of the Mayo-Tsanaga division, movements or residents are restricted and this has a significant impact on their daily life. This is correlated with low stability scores, and subsequently a higher rate of those reporting that they may leave in the next six months. Almost all locations reporting that they would have to move in the next six months also reported restricted movement in their communities.

Below charts are displaying the 313 localities assessed in Cameroon by Département and by Stability Index Score (out of 100) as well as service, security and social scores.

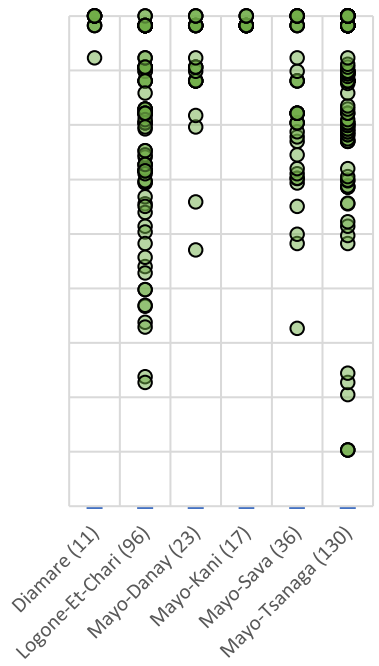
Stability Index Score for each locality assessed, by Département



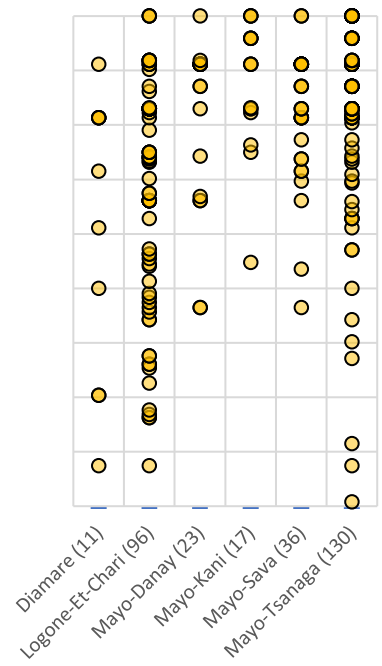
Service score

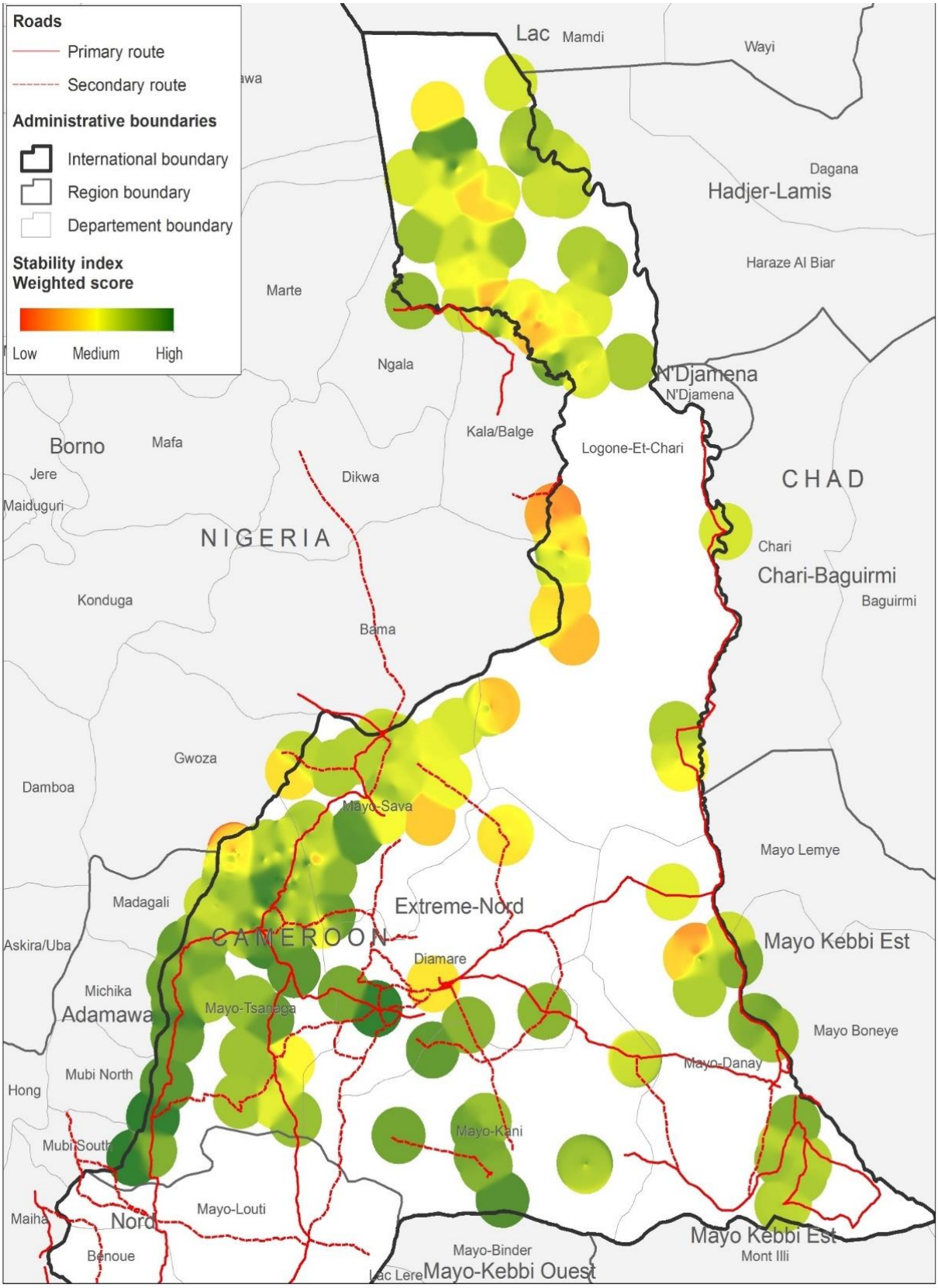


Security score



Social score





Map: Stability scores in assessed localities across the Far North Region of Cameroon

DISCUSSION AND OUTLOOK

Major use for the Stability Index

- Identifying pockets of stability and understanding how to programme in these pockets.
- Differentiating between humanitarian programming needs and development opportunities at a location level.
- Understanding return conditions and which factors influence the decision to move
- Using granular location data to configure location specific profiles and needs

The stability index provides DTM with an opportunity to further augment its robust data collection mechanisms, by filling a much-needed gap when it comes to returns. In Nigeria, the focus on IDPs and camps has tended to overlook the simultaneously significantly large proportion of returnees 1.6 million who also require assistance and appropriate reintegration processes. To ensure that these returns are durable and sustainable, the stability index aims to shed light on the conditions of return. Part of IOM's role in the Lake Chad Basin is to understand and provide detailed information on what the acute needs are, but to also understand what development opportunities exist to begin to build a foundation for durable returns. The results of this survey are important to highlight several gaps that were previously uncovered. A gap in humanitarian activities and support in Adamawa, for example, has left the population with a severe lack of services, and uncertainty about the longevity and sustainability of their return. This is valuable and actionable information that can help IOM and partners to better pinpoint problem areas, or rapidly improving regions, and support them in the most efficient way possible.

Moreover, the different results between Cameroon and Nigeria highlight the differences between conditions and needs of two different types of areas of high returns. The varying security conditions and stages of conflict are directly represented in the 'traditionally' humanitarian and developmental priorities of returnees. This is also a novel contribution of the stability index.

Next Steps

Extending the stability analysis into further rounds will certainly allow for a continuation of the insights outlined above, but perhaps more importantly, will begin to allow us to build a foundation of time series data that will provide more granular and nuanced insights into location specific trends over time. In addition, a substantial amount of qualitative data was collected with this survey that may provide further insights into returnee motivations as we deepen our analysis.

Data Access for Further Analysis

This report only scratches the surface of analysis opportunities offered by the Stability Index in parallel with the standard DTM tools providing the necessary information on volume and demographics of displacement. Put together this information system can support programming implementation partners and policy makers take the right decisions based on solid data. Datasets are available upon request and further analysis can be develop jointly. For dataset access, contact: RO Dakar - Data and Research (rodakar-dataresearch@iom.int)

V. ANNEXES

Annex 1: List of indicators:

Scale 1: Livelihoods and Basic services

1. Destruction of habitats
2. Primary schools
3. Health Centers
4. Local markets
5. Access to electricity
6. Water access
7. Farming land
8. Presence of public employment

Scale 2: Security

1. Security incidents
2. Presence of armed official security actors
3. Restriction of movements
4. Security Concerns
5. Change in the security situation
6. Access to justice mechanisms

Scale 3: Social cohesion

1. Illegal occupation of land, habitat or possession
2. Quality of everyday public life
3. Social capital of the community
4. Intercommunity tensions
5. Access to services, resources and security
6. Access to Identity documents
7. Participation to public affairs

Annex 2: Index Calculation

A set of carefully selected indicators, designed to measure a diverse array of aspects of returnee life ranging from security, access to water and social cohesion were selected. Survey respondents were given a hierarchal range of answers to choose from, each representing a different level of stability. Each answer was assigned a different "value" for scoring purposes. Answers to each question were then re-scaled and normalized to capture only the ordinal value of each question's responses.

After the re-scaling, attribute values are normalized such that they range from 1 to 10 for each indicator. In that stage, zero-values excluded from logarithmic rescaling are mapped to the lowest score (0) and null-values obtained in the case of a non-applicable answer were also mapped to the lowest score (0).

Indicators were then complied and weighted based on a synthetic index created by the first principal component (eigenvalue > 5) and each principal component was then regressed on our dependent variable (recall, this dependent variable is: do you feel like you will have to leave again in six months).

Each indicator thus has a value associated with it, referred to as scores. In addition, each of the following categories of components were isolated and consolidated to better understand each location's score in each category:

Scale 1: Livelihood and Basic Services Score

Scale 2: Social Cohesion Score

Scale 3: Safety Score

The culmination of all indicators from each of these three scales is then weighted based on how much each indicator contributes to the first principal component and transformed into one scalar score that represents the overall "Stability index" score.

Negative answers receive lower ordinal scores (0 or 1) than more positive answers, which can range from (3-5). The answers are then combined to generate a score by locality: the higher the score, the more stable the situation in the community for the returnees in this specific location or stability pocket.

In principle, a well-defined index should not change the ranking of the indicators as the weights are altered by technique. However, while there are some outliers in the ranking between statistical techniques (linear regression, logistic regression, etc.), much of the indexing literature merely displays a preference for similar ordering, but not exact ordering. Changed ordering within a small subsection of the overall ranking is somewhat meaningless. Items in that subsections could have easily been ordered in any other way. What carries meaning is whether an item is "rather at the top" or "rather in the middle" or "rather at the bottom" of certain groups.

Annex 3: Notes on PCA:

In order to assign indicators, a weighted ranking and to obtain a more general idea of the correlation structure, principal component analysis (PCA) was used. The first principal component (PC1) is the best synthetic indicator (in the least square sense) of the range of variability of the variables considered. The PC1 may be considered a sort of synthetic index that combines or condenses, in a single variable, the consistent information originally dispersed across all the indicators. In this way, the stability index was used to generate an unambiguous order of 'factors influencing stability' for each of the observed indicators by combining into a single score (PC1), the information dispersed over the factors in the survey.

The first principal component is the best indicator of the range of variability (in the least square sense). The PCA component 1 (PC1) may be considered as a sort of synthetic index that combines and condenses into a single variable, the consistent information originally dispersed over our measurements.

While the PCA provides valuable information, its main contribution is the explanation of the following two components of this index

- The directions in which data are dispersed. (Eigenvectors.)
- The relative importance of these different directions. (Eigenvalues.)

Since PCA is only concerned with weighting and ordering, the earlier numerical values assigned to each factor mean very little in terms of their actual "value," but rather represent meaning in terms of their ordering. Theoretically, any linear transformation of the coefficients for all factors would result in the same ordering after being subjected PCA (or any indexing methodology).

Since PCA does not necessarily incorporate our dependent variable the way that a simple linear regression might, secondary checks were conducted to ensure that the index calculations were measuring the right metrics.

- All principal components were regressed on the dependent variable and found to have t values > 2 and were statistically significant.

- Spearman correlation coefficient for each pairwise combination of variables[6]
- Alternative linear regressions conducted with the RHS variables of interest which generally match the ordering shape of the PCA regression

[6] Intuitively, the Spearman correlation will be high when two variables have a similar rank, and low when the observations have a dissimilar rank between the two variables. Spearman correlation was used as it is more appropriate for discrete ordinal variables (as opposed to Pearson).