SOLUTIONS AND MOBILITY INDEX — NIGER, Liptako Gourma Round 2 (SMI) Tahoua, Tillaberi | August 2022

Janvier 2023

The complex crisis in the Liptako Gourma region of the Central Sahel, spanning Burkina Faso, Mali, and Niger, continues to experience insecurity that triggered significant population displacement in the three bordering countries. In Niger, the volatile security situation critically impacted the stability of communities in the regions of Tahoua and Tillaberi, creating a complex humanitarian emergency marked by violence from non-state armed groups (NSAGs), lack of livelihood opportunities and communal tensions over scarce resources exacerbated by climate change. The protracted crisis propelled thousands of internally displaced persons (IDPs) and refugees from border countries. Despite the deterioration of the security situation, there is evidence that some IDPs are returning to their communities of origin. As such, humanitarian and development interventions targeting conflict-affected communities remains vital.

In order to find durable solutions for internal displacement — whether through return to communities of origin, local integration, or relocation — and to prevent new displacements in the region, it is critical to understand the relative levels of stability in locations hosting returnees or displaced populations. Therefore, IOM has launched the Stability Index (SI) to evaluate the stability of areas hosting returnees or displaced populations. The SI seeks to understand which factors influence a location's stability, which can inform priority programmatic interventions along the humanitarian, peace and development nexus in order to strengthen the resilience and stability and prevent future forced displacements. This report presents the results of Stability Index assessments in Tahoua and Tillaberi regions of Niger.

1. METHODOLOGY

The Stability Index combines 35 key indicators of stability to estimate a single Stability Score for each surveyed locality. These indicators relate to three key themes crucial to stability: safety and security, livelihoods and basic services, and social cohesion. Indicators for each of these themes are grouped to create subindexes to facilitate the comparison of localities by theme. (see Appendix for further information on the indicators included in this analysis).

These indicators, taken in aggregate, highlight areas that are conducive to durable solutions for internal displacement. Three "anchor questions" about the perception of stability in the community (feeling of stability, future intentions of the community, trends of the situation) are used to validate the relationship between the Stability Score and community sentiment. (see Appendix for further information about how anchor questions are used for index validation).

The Stability Index uses Principal Component Analysis to assess the impact of each indicator on the variability in the data. (see Appendix for further information on Stability Index calculations). The Stability Index and sub-indexes index range from 0 (poor conditions for stability) to 100 (good conditions for stability).

Table 1: Number of Localities Surveyed per Region

ie 1 : Number of Localities Surveyed per Region							
Tahoua	1	Bagaroua	1 Location				
	2	Birnin konni	1 Location				
	3	Madaoua	8 Locations				
	4	Tassara	6 Locations				
	5	Tchintabaraden	15 Locations				
	6	Tillia	23 Locations				
Tillaberi	7	Abala	2 Locations				
	8	Baleyara	1 Location				
	9	Banibangou	4 Locations				
	10	Gotheye	3 Locations				
	11	Kollo	133 Locations				
	12	Ouallam	3 Locations				
	13	Tera	2 Locations				
	14	Tillaberi	9 Locations				
	15	Torodi	11 Locations				

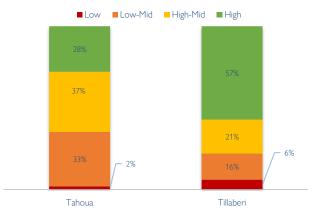
1.1 Data collection overview

The Stability Index includes data collected through key informant interviews at the locality level in the regions of **Tahoua** and **Tillaberi** in locations affected by displacement. Key informants, including mayors, community leaders, and aid workers were interviewed in each location by enumerators in **August 2022**.

The key informant method has the advantage of rapidly collecting information about a large number of localities. Multiple key informants were interviewed in each locality, allowing IOM to cross-validate information. However, the main limitation of this data collection methodology lies in the fact that only a few informants report on the views of an entire community.

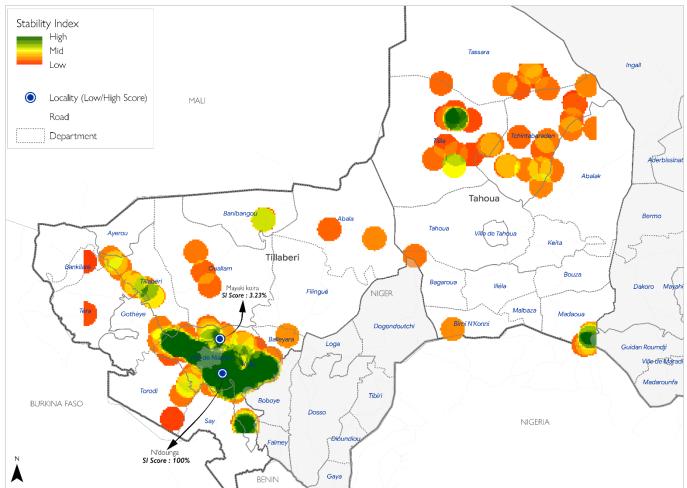
A total of **222 localities** were surveyed in the regions of **Tahoua** and **Tillaberi**. Locations for data collection were selected through of mapping exercise to identify areas where IDPs and returnees are located. (see *Appendix for further information on the locality selection process*).

Fig. 1: Number of Localities Surveyed Per Region



Categories were determined based on quartile. For instance, localities scoring in the "low" category were among lowest-scoring 25% of localities surveyed in the Tahoua and Tillaberi region. "High" localities scored among the top 25% of localities.

2. STABILITY SCORES ANALYSIS



The depiction and use of boundaries, geographic names, and related data shown on maps and included in this report are not warranted to be error free nor do they imply judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries by the IOM.

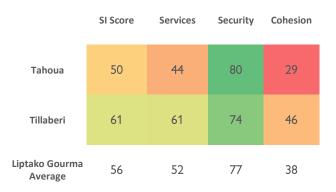
2.1 Stability Scores Analysis (by scale and region)

The average Stability Index score of 222 locations assessed in Tahoua and Tillaberi regions was 56/100. There is a a small gap between the two regions, and we can notice that Tahoua region has low average Stability Scores of 50/100 while Tillaberi has a Low-Mid average Stability Scores of 61/100.

In more detail, except for the security sub-index where both regions had high stability average scores, collected information indicates a Mid-Low average score for two others sub-Indexes. As it will be shown in more detail in later sections, localities in the region of Tillaberi had a medium average scores in social cohesion (46/100) and in Services access (61/100) , while Social cohesion scale in Tahoua region recorded a low score of 29/100.

Interestingly, while both regions experience problem in social cohesion scale as in the wider Liptako Gourma region, the region of Tahoua and Tillaberi had comparably the highest average security score (80/100 in Tahoua and 74/100 in Tillaberi). This is not surprising given the efforts to guarantee security by the government but also the contributions of the various regional councils which multiplied during the year 2022.

Fig. 2: Average SI and Sub-Index Scores per Department
Scores range between 1 and 100



Janvier 2023

3. LOCALITY ANALYSIS

Comparative analysis of localities with highest and lowest SI scores

The table below shows localities with the highest and lowest scores for Stability, three sub-index scores, stability "anchor questions", and top five most influential variables. As expected, the anchor questions, particularly the Feeling of Stability and Feeling of Community are closely related to the Stability Index Scores – all of the highest scoring localities also reported feeling safe and stable, while all of the lowest scoring localities reported feeling unsafe and unstable.

Results for reveal that localities in western Tahoua and northern Tillaberi that are situated closer to the borders of Burkina Faso and Mali have the lowest stability scores, particularly in the departments of Ayerou, Bankilaré, Torodi, Tillia and Tassara. In contrast, localities closer to Niamey have a higher stability score, such as those localities in Kollo department.

Fig. 3: Comparison of localities with highest and lowest SI scores in Region of Tahoua and Tillaberi



Solutions and Stability Index – NIGER Liptako Gourma, Round 2 (SMI) Tahoua, Tillaberi | August 2022

Janvier 2023

4. Analysis of Main Indicators Influencing the Stability Index

The Stability Index uses Principal Component Analysis to understand the impact of each indicator on the variability in the dataset. The indicators with the largest weight have the most influence in determining the Stability Score. The exploration of these key indicators allows for the identification of important factors that may impact the perception of stability in a locality. The top 10 most influential indicators of stability in Tahoua and Tillaberi are listed in the table to the left. (For a more detailed overview of what each indicator measures, see Appendix.)

4.1 Top Indicators in Tahoua and Tillaberi

egiophyces	SOCIAL COHESION	SECURITY				
1	Daily Public Life					
2	Resident Freedom Movement					
3	Incident Trend Activities					
4	Public Sector Situation					
5	Market Situation					
6	Housing Access					
7	Primary School Situation					
8	Incident Trend Petty Crimes					
9	Access Electricity					
10	Farmland Situation					

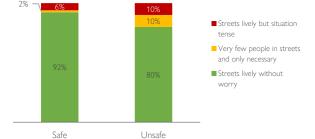
Fig. 4: Top 10 influential indicators in the Tahoua and Tillaberi region

4.2 Analysis of Key Stability Index Indicators

1. Daily Public Life and Stability Social Cohesion

As the most influential indicator, the correlation between daily public life and the perception of stability is illustrated by the graph below. 92% of localities are considered safe and stable. The daily life was described as normal and lively without worry. In localities that are considered unsafe and unstable, 10% reported that daily life was tense. This Indicator

10% reported that daily life was tense. This Indicator shows that there is no correlation with the feeling of stability, justifying a problem of stability and safety in the Liptakor Gourma Life and Perception of Stability



This analysis provides insight into possible programmatic and policy responses that need to be implemented in the target communities in order to improve the perception of stability. The most influential indicators in the region of Tahoua and Tillaberi are predominantly in the areas of Livelihood and Services and Safety and security.

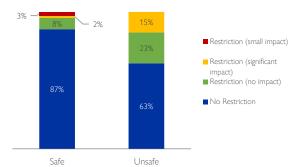
- Social cohesion indicator appear to be the most influential in the dataset for Tahoua and Tillaberi region. Notably, the top influential indicator is "Daily public life".
- **Security** indicators are the second most influential group of indicators: Resident freedom of movement and Incident trend activities.
- Livelihood and basic services indicators represent more than half of the top 10 most influential indicators, with "Public Sector Situation" and "Market Situation" in the top five. the second group of most influential indicators: "Destruction and access to habitat, "the presence of public sector employees", and "access to health center" and "functional medical services."

In view of the previous analyses, it is crucial to underline that programming can have an impact through these **3** first essential indicators.

2. Freedom of Movement and Stability Safety and security

This is the second most influential indicator for the Tahoua and Tillaberi region and it plays a key role in the perception of stability among key informants. About 87% of the localities assessed, reported no restrictions on freedom of movement, while only 3% reported that restrictions were in place with some impact on their lives.

Fig. 6: Freedom of Movement and Perception of Stability



SOLUTIONS AND Stability Index - NIGER Liptako Gourma, Round 2

4.2 Analysis of Key Stability Index Indicators

Janvier 2023

Incident Trend Activities

Safety and Security

The Incident trend activities indicator is the third most influential indicator of the actual assessment.

In most localities, the impact of incidents on activities has decreased (76%) over the past three months, particularly in all department of the Tahoua region and Gotheye, Kollo and Ouallam departments in Tillaberi region, where key informants reported a 100% reduction in incidents that may affect the course of activities. Moreover, there was no change in the situation in 20% of localities of concerned department, respectively in Torodi (64%) and Banibangou (33%) where the trend remained unchanged. Nevertheless, it appears that the incidents have increased over the last 3 months in only 4% of localities of Tahoua and Tillaberi region, particularly in Torodi (36%) and in Banibangou (33%) which are the 2 localities to have

4. Presented the highest rate

Livelihood and Services

In 69% of localities of both regions of Tahoua and Tillaberi, public sector employees remained active during a crisis or conflict situation; against 5% of localities where they left the locality and did not return, while in 7% of cases, people working in the public sector returned after leaving the locality. in this case, Tillaberi department is the only locality with a high proportion (44%) where public sector employees returned after leaving the locality. On the other hand, in 18% of localities, there are no people working in the public sector, such as in Tchintabaraden department in Tahoua region which stands out with a proportion of 67%.

5. Market Situation

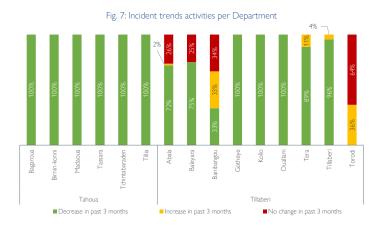
Livelihood and Services

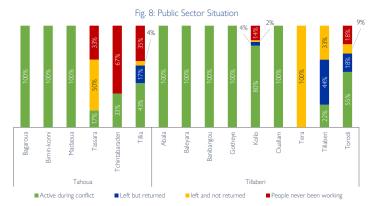
Most localities present positive results pertaining to access and opening of local markets, as well as their regular supply, such as in the Tillaberi region where 5 departements recorded 100/100 score (in Abala, Baleyara, Banibangou, Gotheye at Ouallam). However, 24% of localities; whose markets and small businesses remain open; are affected by the shortage of items. On the other hand, in the department of Bagaroua in Tahoua region, although the markets are open; the percentage in shortage is 100%, followed by the department of Torodi in Tillaberi region (64%). These 2 last figures are explained by the fact that the access roads to Bagaroua, Torodi, Tillia are damaged especially after the rainy season causing floods on the other hand, not allowing the effective delivery of items; to note also, the cases of insecurity on the road. As for the department of Torodi and Tchintabaraden are relatively those affected at 9% and Threspectively by the closure of local markets.

Livelihood and Services

In all the localities assessed in both regions, key informants indicated that people have access to housing in general (76%). However, some departments present alarming figures for this indicator. In this case, 57% of the localities of Tillia are affected by inaccessibility to housing. The same for the department of Banibangou and Tassara whit both 50% score.

The assessments indicated that 24% of the localities in the two regions do not have access to housing, which is due to flooding caused by heavy rains during the









Janvier 2023

4.3 Analysis of Anchor Questions

The focus in the first section of the questionnaire is on the key informants' perception on stability in the assessed localities. For this second section, "Anchor questions" are used to validate stability Index findings against self-reported perceptions in the community. key informants were asked three main questions to assess the perception of stability in their community. These questions concern the indicators related to "Feeling of stability", "Future intention of the population" and "Changes in perception over the last 6 months"

Feeling of stability

Does the locality feel safe or unsafe?

Most of key informants in the assessed communities reported that their locations (82%) feel safe and stable while 18% reported their locations were unsafe.

Among the localities feeling safe in the department of Bagaroua, Birnin-konni, Madoua, Tassara in Tahoua region; Abala, Baleyara, Banibangou, Ouallam and Tera had a score of 100%. On the other hand, the localities feeling unsafe are in department of Tillia, Torodi, Tchintabaraden, Gotheye. Which would represent 18% of the localities assessed.

The localities of the department of Torodi show however mixed results, on the one hand, 27% feel safe and on the other hand, 73% do not feel safe; This being the highest percentage recorded as dangerous. The above may indicate that an improvement in a secure and stable climate was widely observed in both regions at the time of the stability index assessments.

Future intentions of the population

Do people in the locality feel that they need to leave soon due to safety concerns?

The responses provided by key informants about "the intention to leave" were correlated with their statements on 'the feeling of safety'. Among the localities that expressed the feeling of insecurity, only 9% expressed the need to leave, especially in the localities of the departments of Ouallam, Gotheye, and Tillia where more than 26% reported the feeling of Unsafety, also indicated that they might need to leave soon. Roughly, 13% of the population of Tahoua should soon leave for security reasons against 7% for the region of Tillaberi.

Changes in perception over the last 6 months

Regarding opinions on the changes in perception over the last 6 months, the answers do not correlate with the previous results on the feeling of stability and the future intentions of the population. Indeed, in most localities that presented positive results on the feeling of stability (82%) and future intentions (91%); key informants remain optimistic about the state of the community than six months ago (64%).

However, it should be noted that the locality of Bagaroua and Birnin-konni in Tahoua region and Baleyara department in Tillaberi region presents more pessimistic figures regarding these 3 specific indicators on the feeling of stability (100%), the future intentions of the population (42 %) and finally on changes in perception over the last 6 months (67%). Surprisingly in Bagaroua, Birnin-konni department in Tahoua region and Baleyara department in Tillaberi region where key informants showed no intention to leave (100%), are also reported feeling less optimistic about the state of the community than six months ago (100% for all those departments).



Fig. 12: Intention to leave the locality

Waddous AAba Bankaraden

Waddous AAba Bankaraden

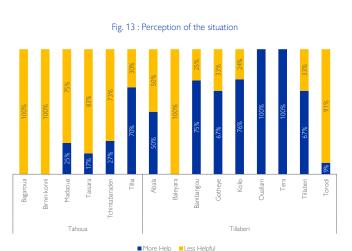
Wallaberi

Tahoua

Tahoua

Don't need to leave

May need to leave

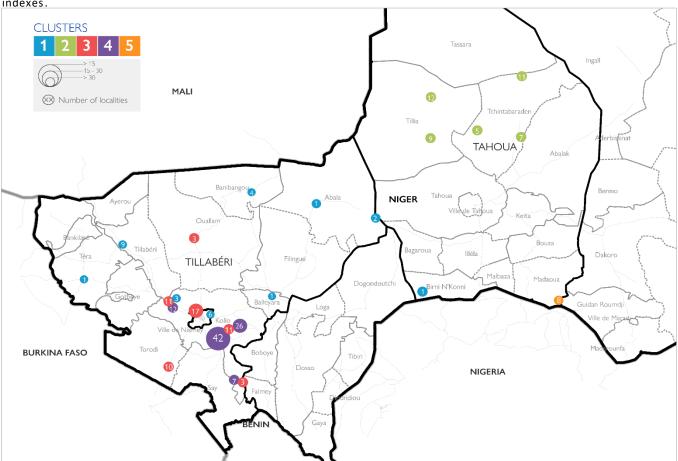


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5. CLUSTER ANALYSIS

Grouping similar localities into clusters can help to uncover the distinctive profiles of geographic regions in order to facilitate targeted programming. (See Appendix for details on cluster generation.) The map below visualizes the assessed localities in both region of Tahoua and Tillaberi divided into five clusters. Each color represents a grouping of localities with similar sets of answers to the Stability Index survey.

The accompanying table below provides a breakdown of the average Stability Index and sub-index scores for each of these clusters. It is noteworthy that clusters with similar average SI scores have markedly different scores on sub-indexes.



One cluster with Low and low-Mid SI scores, clusters 2, is concentrated on the center on the Tahoua region, while set of cluster 5 that contain only Low-Mid SI score in localities that are concentrated in Madaoua commune. Cluster 2 is particularly composed by localities in the communes of Tillia and Tchintabaraden. We can observe that cluster 3 includes those with the Low-Mid SI scores and the lowest Cohesion sub-index score, with localities that are concentrated along the main roads in the Tillaberi region.

We also note that Cluster 1 is generally made up of localities located along the main roads but that are isolated with Low Cohesion score in Tahoua region and the Highest Safety sub-index score, and Low-Mid Stability index scores at the borders of the city of Niamey.

Cluster 4 meanwhile, is composed by many localities located in the Kollo department in the Tillaberi region, generally along side the main road with the highest SI score, and High-Mid Safety sub-index score.

Although they both have an average SI score, Cluster 2 localities sub-index score are considerably lower in the social cohesion scale compared to Cluster 3 localities. It is notable that Cluster 4 is more concentrated around the commune of N'dounga (42 localities) in the Tillaberi region, with most Mid-High scores in terms of Security, thus justifying a high SI score in the localities of this commune as reported by several key informants.

Solutions and Stability Index — NIGER Liptako Gourma, Round 2 (SMI) Tahoua, Tillaberi | August 2022

Janvier 2023

Fig. 14 Average SI score and sub-index scores by cluster involved in Tahoua and Tillaberi data

	Stability Index	Security Sub- Index			Number of Localities
Cluster 1 : Mostly Low and Mid-Low Cohesion score in Tahoua and Tillaberi region	68	67	74	37	28
Cluster 2 : Mostly Low Cohesion sub-index score Tahoua region	49	40	85	23	44
Cluster 3: Low-Mid SI Score and the lowest sub-index score in Tillaberi region	41	53	45	51	55
Cluster 4 : High SI Score, High-Mid Safety sub-	72	65	93	45	87
Cluster 5 : Low-Mid SI score in Madaoua Tahoua region	54	57	53	62	8

- In Cluster 1, A very low cohesion score is observed in certain localities such as **Tadress** and **Famale** in the department of Tillaberi; the localities of **Moribane** and **Koyan-sandikoira** in the department of Banibangou as well as in the localities of **Nanaye Gountou** in the department of Tera As for the score of basic services, it is noticeable that it becomes lower and lower the closer the localities are to the city of Niamey and to the borders with Burkina Faso.
- Cluster 2 although is composed of departments with low average stability index scores (49/100) in the Tahoua region, but it is also composed mainly of localities in the Tahoua region with low scores.
- Cluster 3 includes exclusively of departments in the Tillaberi region with SI ranging from the lowest to the Mid-high. It's also
 observed in this cluster to have the lowest SI score of our evaluation in the locality of Mayaki Koira (3.23/100) in the department of
 Hamdallaye and the lowest Safety sub-index score observed in the locality of Torodi, in Torodi department.
- Cluster 4 is composed mainly of localities in the departments of the Tillaberi region that have a relatively Medium-High stability index (72/100), and among which we note the presence of the locality of **N'dounga**, in the department of Kollo, which has the highest SI score (100/100). Also, this cluster includes several localities in the department of Kollo, and located along the main roads, justifying the high rate of localities with Medium-High and High scores.
- Cluster 5 includes a set of localities of the Madaoua department in the Tahoua region with the Low-Mid Stability Index scores, while we can observe the highest Cohesion sub-index score in the locality of **Guidan Bogwari (100/100)**.

SOLUTIONS AND Stability Index — NIGER Liptako Gourma, (SMI) Round 2

Janvier 2023

6. CONCLUSION

The results of the Stability Index carried out in the **222 localities** of **the Tahoua and Tillaberi region** provide several key indicators that have a direct impact on perceptions of stability of the department. As noted in the introduction to this report, it is important to note that these findings will inform programmatic interventions that can improve perceptions of stability at both the local and cluster level; with a long-term impact on strengthening social cohesion among communities.

Following the order of impact, perceptions of stability were influenced mostly by the following 10 indicators: Daily public life, resident freedom movement, incident trend activities, public sector situation, market situation, housing access, primary school situation, incident trend petty crimes, access to electricity and finally Farmland situation; of which the 3 first were the TOP indicators (Daily public life, freedom of movement and incident trend activities), belonging to the thematic indicators on Social cohesion and the Security and Safety.

At the end of the evaluation of this SI in the Liptako Gourma, the findings allow us to draw some conclusions:

- The average score of the stability index of 222 localities evaluated in the Liptako Gourma is 56/100. The departments with the lowest Stability Index score were mostly located closer to the borders of the Burkina Faso in the Tillaberi region, in particular the department of Torodi and Tera, then closer to the border of Mali in Tahoua region, in particular the department of Tillia. On the other hand, it turns out that the localities with higher stability scores are located on the edges of the main roads, such as in the commune of N'dounga in the department of Kollo, where we observed also the highest Stability Index score in the locality of N'dounga (100/100).

The results also reveal certain correlations and links between the key indicators and the perception of stability; we can cite:

- The key indicator under the theme "social cohesion" and under "security and safety" which are closely linked with the perception of stability especially in localities where access to basic services Livelihoods present positive scores.
- A high correlation between **the first 2 anchor questions**; but a slight correlation with the last anchor question on change in Perception over the last 6 months (*See Appendix II* for Indicators highly correlated with key validation questions); in fact, the perception of some localities has remained invariable.

6.1 Recommendations

Recommendations can be induced for the stability Index's findings to inform and guide programmatic planification, in order to encourage and support durable solutions in the Liptako Gourma.

• Programming along the Humanitarian-Development Nexus:

Analyzing the differences between departments with the highest and lowest scores on Stability Index can provide useful insights into programme priorities. Departments with very low stability scores may require more immediate assistance, while in departments with higher stability scores, development programming may be more relevant to further strengthen resilience that may expand to surrounding communities. For example, in departments with very low stability scores, programming should focus on interventions such as;

- Improving the access to public services as markets by rehabilitating roads, also developing mechanisms for selling local products, alongside government partnership. (the case of the departments of Bagaroua, Tillia, Tchintabaraden and tassara in Tahoua region, and departments of Torodi and Tera in Tillaberi region)
- Providing better access to shelter/habitat, including improving the condition of existing habitats in Tillia, Tassara in Tahoua region and Banibangou and Torodi in Tillaberi region where result were the lowest for this indicator.
- As the social cohesion sub-index scores are the lowest in both regions of Tahoua and Tillaberi, programs should increase activities aimed at building social cohesion, which requires a comprehensive approach that focuses on root causes and offers effective means of dealing with tensions within a community
- Focus intervention on fields with the most impact on stability:

Programmatic fields should focus on aspects that having the most impact on the stability perception, including these:

- Incident trend in petty crimes
- Incident trend on activities
- The daily public life
- The public sector situation and the primary education.

In the departments of the Liptako Gourma where the Stability Index relatively is rather low, programmes, should urgently focus on **Social cohesion** and **general access to services** in order to achieve an acceptable level of stability and should be also considered into conflict sensitive programing, especially in locations farthest from main roads, as this may strain already limited capacity to deliver services.

6.2 Challenges encountered during the data collection activity

It is important to highlight the obstacles and challenges we encountered during the data collection process :

- Difficulty of access to localities due to natural disasters;
- The movement of enumerators delayed by the rainy season, which led to the extension of the data collection period;
- The breakdown of vehicles used for transportation of enumerators during the data collection;
- The absence of mobile network in some localities, making it difficult to send data in time;
- Unavailability of military escorts to secure investigators' access to certain localities;
- Unavailability of some local authorities to receive the field team for the permission to launch the data collection activities in their areas.

lanvier 2023

7. APPENDIX

7.1 Selection of Localities

The selection of localities was as broad as possible in areas affected by displacement and/or returns in the Liptako Gourma region of Niger. A list of localities to be surveyed was created based on data collected by IOM on displacement/returns and other existing data systems (census, administrative lists, etc.). The objective was to have a large enough number of localities at both the country and regional level to ensure a solid foundation for statistical analysis. A total of 68 locations in Tahoua and Tillaberi regions were covered. A locality is the administrative level 4 (lowest possible level). The level has a representation, whether formal (State) or informal (Chef de village).

7.2 Stability Index Calculation

The Stability Index calculation begins with survey design: this tool was developed with substantive input from community stabilization and HDPN experts. It includes a set questions assessing the conditions in a locality that were determined to be 1) potential indicators of stability and 2) possible to rank in terms of their stability implications. Questions were divided into four categories: anchor questions (perceptions about stability), safety and security, social cohesion, and access to basic services.

Before index calculation, responses were ranked ordinally from best to worst case scenario. Then, Principle Component Analysis (PCA) was run using all indicators except for the "anchor questions", which are used instead to validate index results. The weight for each variable, determined via PCA, was combined with the ranked survey-responses for each locality to generate its overall Stability Score.

7.3 Sub-Index Calculation

In addition to the Stability Score, three separate sub-indexes were generated using the variables from each of the three themes in the survey: Security, Social Cohesion, Services. The sub-indexes were calculated by separately combining the weights from the Stability Index calculation with the variables for each theme, and then rescaled between 1-100. The overall Stability Index is not an average of these three sub-indexes. The sub-indexes facilitate the identification of localities that may need specific attention in one of these sectors.

7.4 Stability Index Validation

The Stability Index and the sub-indexes are validated against the key questions on the perception of stability. This ensures that there is a statistically significant relationship between the Stability Scores and the perception of stability. The relationship was validated via logistic regressions which indicate that a locality's Stability Index score has a statistically significant, positive

correlation with both the community's feeling of stability and their feelings of whether they will need to leave soon. However, there is no discernable relationship between Stability Score and the perception about whether the situation is improving or getting worse.

7.5 Principal Component Analysis

The Stability Index is calculated using a dimensionality reduction technique called Principal Component Analysis (PCA), which essentially condenses the information from over 30 variables into a single, easily comparable Stability Score. PCA gives more weight to the factors that have a greater impact on the variability in the data, meaning that those factors make up a larger proportion of the Stability Score.

While each of the indicators assessed is clearly important for informing programming along the humanitarian-development-peace nexus, PCA is particularly useful for demonstrating the impact of different indicators on one another, and the proportional influence of a given indicator on a given dataset. For example, while the availability of electricity and access to health care are both individually important factors, they also heavily influence one another (this is called collinearity). PCA helps to see beyond the collinearity and drives at influence in a more coherent way, which is critical to understanding complex phenomena like the nature and conditions of return.

7.6 Cluster Generation

To facilitate the analysis of groups of localities, clusters were created using the K Nearest Neighbors (KNN) machine learning algorithm, weighted by geographic distance. KNN allows for the identification of groups of localities that are the most similar across all of the provided inputs. The inputs included the first five dimensions from the Principle Component Analysis results generated during the Stability Index calculation, as well as the geographic distance between the latitude-longitude points of each locality.

7.7 Limitations

Some localities that were not accessible during the data collection period were not assessed due to security or logistical reasons. This may have introduced bias as data points from some of the least secure locations were excluded from the analysis. This limits the generalizability of the Stability Index findings in extremely insecure localities.

It is important to note that the Stability Index is based on informants' perceptions of stability and reports of the conditions in their locality and does not claim to provide an objective measure of this complex topic. Key informants are not randomly selected and may have different opinions about the stability in their locality than some of their neighbors.

Janvier 2023

75 – Survey Indicators

ANCHOR QUESTIONS: PERCEPTION OF STABILITY

These key indicators were used to measure the perception of stability in each locality. The key indicators where then tested against each of the thematic indicators below to identify the most influential thematic indicators on the perception of stability.

Feeling of Stability in the Locality

Does the locality feel safe and stable or unsafe and unstable?

Ability to Continue Living in Locality

Do people in the locality feel that they need to leave within the next six months?

Changes in Perception in the Last 6 Months

Do people feel more or less hopeful about the state of the community than they did six months ago?

SCALE 1: LIVELIHOOD & SERVICES

Shelter Access and Quality

Proportion of the community that has access to shelter and conditions of shelter.

Damage to Homes

Level of damage to homes due to conflict, and whether reconstruction is underway.

Primary Education

Access to primary education and availability of schools in the locality or in neighbouring towns

Health Center and Medical Care

Access to functioning health center in the locality or in neighboring town

Local Market

Whether markets are open regularly and supplied

Electricity

Electricity access and reliability in the locality

Drinking Water

Drinking water access and availability in the locality.

Farmland & Fishing Grounds

Extent of fishing grounds and farmland being used in the locality

Presence of Public Sector Employees

Whether public sector employees are present and how they reacted to the conflict.

Internet and Communications Technology

Access and reliability of internet or phone services.

Janvier 2023

75 – Survey Indicators

SCALE 2: SOCIAL COHESION

Illegal Occupation of House, Land and Property

Land, habitat or property occupied illegally (without authorization from family, neighbors, local authorities)

Robbery Personal Effects

Robbery of personal belongings reported in locality in the last 6 months

Cattle Theft Reported

Cattle theft reported in the locality in the last 6 months

Daily Public Life

Whether residents are able to carry out basic activities without worry (going to the market, letting children play outside, street vendors, etc.)

Community Support

Likelihood of cooperation between neighbors in case of problems (such as with the supply of water or food) in the locality

Community Tension

Incidents or clashes involving two groups (religious, ethnic, herders/farmers, displaced/returnee/host communities) in the locality

Equal Access to Services

Populations in the locality have equal access basic services and resources no matter their age, sex or group (ethnicity, clan, displacement status)

Identity Documents

Level of identity document possession or access in the locality

Participation in Public Affairs

Level of participation in local public and political life (civil society organizations, unions, committees, social gatherings, religious groups)

SCALE 3: SAFETY AND SECURITY

Recent Security Incidents

Whether there have been serious security incidents in recent months

Security Incidents - Resources

Trends in the number of security incidents linked to resource tensions (cattle raiding, land conflict, etc.) over past three months.

Security Incidents – Non-State Armed Groups

Trends in the number of security incidents linked to NSAG activities (kidnapping, terrorist attacks, raids, etc.) over past three months.

Petty Crime

Trends in the number of petty crimes (theft, pickpocketing, vandalism, public intoxication, etc.) over past three months.

Community Concerns About Security

How concerned residents feel about their security (kidnapping, crime, fighting between armed groups, etc.).

Police Presence

Presence of police/gendarmerie in the locality

Security Forces Presence

Presence of security forces in the locality

Non-State Armed Groups Presence

Presence of Non-State Armed Groups in the locality

Informal Militias/ Vigilante Group Presence

Presence of informal self-defense militias and vigilante groups in the locality

Freedom of Movement

Residents' freedom of movement (to markets, to their homes, to workplaces, to farms, etc.) in the locality

Formal Curfew

Formal curfew for security reasons enforced by State

Informal Curfew

Informal curfew enforced by Non-State Armed Groups

State of Emergency

Whether the locality is under a state of emergency

Legal Remedies

Whether residents have access to legal remedies to resolve disputes

STABILITY INDEX - LIPTAKO GOURMA

NIGER, Tahoua & Tillaberi AUGUST 2022



Fragility, Solution and Mobility working group, IOM

The Stability Index is part of a larger body of work developed by IOM country teams in Iraq, Somalia, the Lake Chad Basin, and elsewhere—that improve strategic planning and implementation of transition and recovery programs. The Fragility, Solutions, and Mobility working group is working to provide a series of technical and strategic guidance and tools, including drafting a methodological framework to allow for a malleable, context specific but standardized approach to measuring fragility in new and emerging operations. The goal is an IOM-led global minimum standard for data collection and responsible data management for measuring and understanding indicators of fragility and stability through the deployment of analytical models in displacement and conflict contexts.

IOM's Transition and Recovery Division (TRD) and the IOM Solutions and Mobility Index (SMI)'s work in this space allows for new and unique approaches aimed at consolidating and packaging existing methods, to achieve stronger outcomes and to better scale programming in fragile contexts. This approach provides a foundation from which to adapt and contextualize data-based evidence for the support of strategic planning and implementation of transition and recovery programs. Grounded in the principles of responsible data management, appropriate evidence can identify core factors of fragility, solutions, and mobility at the community level, and help identify how these factors impact the overall condition of the physical location and local community, and how these evolve over time.

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