"We are not getting the support we need to lead a better life"

Community perspectives on climate resilience in Bangladesh
April 2023

ICCCAD
International Centre for
Climate Change and
Development

GROUND TRUTH
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Preface

Frontline communities must be at the centre of adaptation efforts— but are they?

At Ground Truth Solutions (GTS), we've always believed in the importance of listening to what people have to say. Input from vulnerable people must be central to action on the climate crisis, which, while it touches us all, is particularly threatening to those with the least power and the most to lose. There isn't an adaptation policy or climate action plan that doesn't talk of the centrality of inclusion and participation. But research we conducted with the International Institute for Environment and Development (IIED) demonstrates that when it comes to citizen engagement, implementation fails to match the rhetoric.

In 2022, we began working with the International Centre for Climate Change and Development (ICCCAD) to trial applying our methodology, honed over a decade in the humanitarian aid space, to climate adaptation in Bangladesh. Central to this are a series of short surveys to gauge people's evolving sense of the way things are panning out for them on the ground, coupled with extensive dialogue – with affected communities and practitioners alike – to build a 360-degree perspective on local resilience. Our analysis of the data includes follow-up with community members to determine what they might recommend doing differently, and workshops with programme implementers and officials, aiming for corrective action.

The survey process is designed to be iterative, becoming increasingly powerful over time as communities – witnessing that the people running programmes are not only listening to them but acting on what they hear – become progressively engaged. In other words, the idea is not a tool of monitoring for its own sake, but a method for better managing programme performance via continual improvements triggered by regular bottom-up feedback.

The results of our Bangladesh pilot offer a reality check. We found that after years of adaptation work led by non-governmental and government bodies, the people targeted by these programmes do feel better able to deal with the precarities caused by climate change. Many point to progress in areas like cyclone warnings and flood-protection infrastructure. Overall, though, they consider these interventions inadequate in the face of multiple and inter-related challenges, from flooding and extreme heat to the ability to make a living or relocate to safer ground. People express concern about who is included in programme coverage and who is not. They point to a lack of information on how resources are targeted and spent. Perhaps most important of all, many community members say that they don't feel their views count for much. Some say they are reluctant to voice them, for fear of reprisal.

Even in a country where adaptation has been taken seriously for decades, and supported by significant funding, there is a long way to go before it becomes the people-centred activity that it must be in order to succeed. Our aim now is to extend the work in Bangladesh over the five-year cycle of the country's National Adaptation Plan and, simultaneously, to expand uptake of the Ground Truth methodology to other countries. We believe, based on our work in Bangladesh, that this offers a straightforward yet powerful tool for shifting participatory climate policies from mere rhetoric to responsive action – for the benefit of all.

> Community consultations take place by adaptation actors, but our investigation shows that they rarely drive programme changes or inform new policies.

Introduction

Bangladesh—a race against time to clean up other people's mess

Bangladesh, which generates a meagre 0.56% of global carbon emissions, is among the top 10 countries most vulnerable to climate risk. Its geographic position and flat, low-lying topography expose its southern coast to deadly cyclones and storm surges sweeping in from the Bay of Bengal. Annual river flooding often inundates one-quarter of the country, while in the north-west heatwaves and drought blight the land. Climate change is exacerbating these hazards, jeopardizing the lives of a densely-packed population made more vulnerable by poverty and reliance on climate-sensitive sectors, such as agriculture and fisheries. Between 2000 and 2019, it is estimated that extreme weather events led to combined losses of $3.72 billion.[1]

Over its 50-year history, Bangladesh has substantially reduced disaster death tolls and damage through the world-famous Cyclone Preparedness Programme (CPP) with its 76,000+ volunteers. But – as the government's own climate and development policies make clear – adapting to climate change will take more than simply disaster preparedness and response. Effective adaptation requires engaging with at-risk communities across the country to understand the specific climate-driven hazards they face and the resources they need to protect themselves and adopt new ways of living and working.

In partnership with IIED, GTS conducted a detailed review of climate and development policies and practices in Bangladesh in 2021 to assess our potential to add value in the adaptation space with a methodology honed in humanitarian action. The review concluded that the fine aspirations found in the documentation to engage and empower vulnerable communities are rarely matched by the reality on the ground. This looming engagement gap risks squandering precious resources on misguided interventions and missing out on opportunities to create lasting impact.[2]
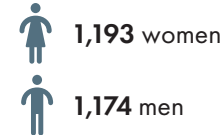
In mid-2022, GTS and ICCCAD surveyed the opinions of more than 2,300 citizens in three areas of Bangladesh particularly vulnerable to climate risk. This is the first time GTS' methodology of community engagement has been applied to a climate change adaptation context. The pilot had three distinct objectives:

1. Capture the views of vulnerable communities on climate risks, priorities for adaptation, quality of support received, level of engagement and their own sense of resilience, to share with those working on adaptation and resilience.

2. Establish a baseline of local perceptions of progress in adaptation, against which to track community-evaluated success over time.

*3. **Explore the potential of the methodology to fill engagement gaps*** left by existing monitoring, evaluation, and learning (MEL) approaches, and to elevate the opinions of vulnerable people in a way that influences adaptation policy and practice.

The three locations chosen were Shyamnagar and Golachipa, two coastal upazilas (sub-districts) on the Bay of Bengal exposed to sea-level rise, storms and salinity intrusion, and Sirajganj Sadar, an upazila in the northwest exposed to riverbank erosion, flooding and heatwaves. Survey teams, led by Consiglieri Private Limited, a research company, and ICCCAD, conducted both quantitative surveys and qualitative follow-up discussions with focus groups and key informants. This report presents the key findings and insights from each of the three sub-districts.

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[1] Outlook India. September 2022. "Bangladesh's lonely battle against climate change."

[2] Bahadur, A. and Walter, J. 2021. "Applying Constituent Voice to Adaptation".

We talked to 2,376 people

Sex

1,193 women

1,174 men

Age

567 18-30 years old

1,261 31-50 years old

539 51+ years old

Upazila

781 Shyamnagar

790 Golachipa

796 Sirajganj Sadar

Summary

Short-term relief and early warnings help—but people are afraid to say it's not fair, not transparent and not enough

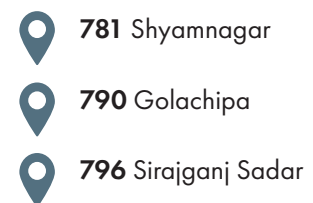In late 2022, we surveyed 2,367 people in two coastal sub-districts (Shyamnagar and Golachipa) and one inland sub-district in the northwest (Sirajganj Sadar). Our aim was to understand how they perceive the quality and impact of adaptation programmes in their communities, and the extent to which they feel their views, opinions and experiences are considered in decision-making. The survey was complemented by 12 focus group discussions and 48 interviews in the three sub-districts.

These results will serve as a baseline to continue tracking local adaptation outcomes and the extent to which communities have a say in the way adaptation efforts are designed, implemented, monitored and evaluated. The goal is to hold adaptation programmes accountable to the communities they seek to serve.

Key findings:

- **Efforts to improve information-sharing on preparedness and early warning are mostly working.** But while the majority of people surveyed in the two coastal areas feel sufficiently informed, those surveyed in Sirajganj Sadar do not.

- **Adaptation programmes are deemed unfair.** People say many vulnerable people are left out, citing favouritism, mismanagement and opaque decision-making.

- **Communities are demanding greater transparency.** Without it, they draw their own conclusions about how decisions are made and do not trust decision-makers.

- **There are limited opportunities to participate and provide feedback in climate adaptation programming.** Some people do not even feel comfortable providing feedback for fear of reprisal.

- **People do not feel that short-term interventions prepare them for complex climate crises.** Timely messages and disaster relief only go so far in the face of infrastructure shortfalls and precarious livelihoods.

- **Projects with a longer-term approach are noted and appreciated.** But communities say they benefit relatively few people and need to be scaled-up.

- **Feedback points to changing community priorities.** With most aid programming in Sirajganj Sadar focused on floods, people now feel that other, harder-to-address risks need attention. Three-quarters of respondents from the inland sub-district highlight heatwaves as the hazard of most concern to them.

What is Ground Truth Solutions' methodology?

Our approach to engaging communities in programme performance is derived from the Constituent Voice methodology, which GTS has been tweaking for years, with its roots in the worlds of customer relationship management and political polling. It is a rigorous, iterative process that prioritises genuine engagement – not data extraction. While it follows the traditional surveying approach of "design, collection and analysis", it differs from other assessment methods in three important ways:

- **'Discuss' principle:** Gone are the days when we felt we could limit "discussion" of findings to a short phase at the end of the cycle and people would magically act on data. Dialogue needs to happen throughout projects. Consistent discussions with practitioners are complemented by deeper dives with communities, where surveyors or local facilitators present the primary data back through community events, focus groups, workshops and interviews. These conversations add nuance to the numbers and help generate community recommendations.

- **Iterative, agile approach:** Our research methods have two tracks. Quantitative surveys – designed to be light-touch enough to repeat with the same respondents every 6 to 12 months – are a diagnostic. They enable managers to track changes in perceptions over time and deploy surveys rapidly after disasters. Qualitative discussions dig deeper, deliver more detailed information and are therefore more likely to lead to action by practitioners. It is the combination of "quant and qual" that is likely to lead to improved outcomes over time.

- **Course correction:** Our iterative approach allows managers and policy-makers to understand the effectiveness or shortcomings of programmes and make course corrections in real time. Sometimes – in the case of project-specific improvements – this is straightforward. Other times it means understanding barriers to action at a higher level (e.g. funding conditions, coordination shortcomings, bureaucracy) and advocating for policy reforms so that managers have the space to be more responsive to communities.

Men and women collect water chestnuts from a pond in Shyamnagar, Satkhira. Photo: Abir Abdullah/GTS

The agility of our approach stands in contrast to more cumbersome assessments and evaluations carried out before, during and after project execution. But our aim is not always for this work to replace these processes, which can play a valuable role in setting baselines and reporting to donors. Our work is complementary – an independent function that enhances community participation to maximise impact.

We believe the GTS methodology adds value in many areas of adaptation policy and practice, including locally led adaptation (LLA) and Loss and Damage, but also in relation to the Global Goal on Adaptation and in the emerging research area of subjective resilience.

Three reasons why GTS' methodology is a powerful tool to engage at-risk communities:

1. **Harnesses the power of subjective opinion**

Adaptation tends to prioritise objective, scientific data – informed by complex climate modelling. But opinions also matter, because research shows people adapt their behaviour based on subjective perceptions of risk, not on scientific projections. Perception-based data can capture the social dimensions of vulnerability, capacity and adaptation. For example, while traditional assessments may ask whether communities have access to early warning information, GTS' approach would ask whether communities trust these forecasts and how they help communities to prepare. By exploring the reasons for their answers, GTS can reveal not just whether but why adaptation projects succeed or fail.

2. **Enables adaptation to be adaptable**

Adaptation programmes mostly follow the standard cycle of initiation, implementation and closure. Evaluation happens mid-term and at the end, but rarely leads to changes of direction. The goals, objectives and means of delivery are set from the start. But as climate hazards become more unpredictable and severe, adaptation itself needs to adapt. Programmes will have to adjust assumptions, objectives and plans in the face of changing realities. The best-placed people to inform these course corrections are at-risk communities themselves – and GTS' methodology provides the tool to capture that local wisdom in time to make a difference.

3. **Sense-making generates insights into resilience**

Existing assessments mostly extract data without sharing findings with those who provided it. This matters, for two reasons. First, the more respondents feel their opinions are valued, the more engaged they become and the more prepared they are to share high-quality feedback. Second, resilience is not like carbon dioxide – you can't measure it in parts per million. It is deeply context-specific and depends on a wide range of cultural, economic and geographic variables that those most at-risk understand best. Our "discuss" principle allows for collaborative sense-making that generates the rich insights needed to understand and build resilience.

Business as usual approaches	Ground Truth Solutions' approach
Objective data	Subjective data
Static snapshots	Iterative
Extracting data for experts	Collaborative, sense-making process
Limited insights on outcomes	Rich insights on outcomes
Limited scope for course correction	Scope for continual course correction
Inflexible in face of shocks	Enables adaptation to adapt
Focus on what	Focus on why
Time-heavy data analysis	Quick to analyse
Variable surveys hamper comparison	Uniform surveying allows longitudinal analysis

Want to know more?

See Annex for more information on GTS' methodology and why we think it adds value to adaptation policy and practice.

A woman on her way to repair the damaged embankment in Munshiganj, Shyamnagar. Photo: Abir Abdullah/GTS

Geographic inequality: a tale of three upazilas

Equally vulnerable—in their own ways—but not equally supported

Bangladesh has become a strong voice for climate-vulnerable countries, but internally its vulnerability is not monolithic. Shyamnagar, Golachipa and Sirajganj Sadar, where the surveys were conducted, are three upazilas or sub-districts facing a host of different hazards. Many government and non-governmental agencies are implementing projects in these areas to enhance the resilience of local communities. But investment has not been equal.

Shyamnagar is well-known for being a test site for climate change adaptation (CCA) and disaster risk reduction (DRR) and has received considerably more investment than the other two upazilas.[3] Golachipa has also received considerable adaptation assistance, though less than Shyamnagar. For this reason, we analyse Shyamnagar and Golachipa together, as community feedback is more comparable in these two relatively well-served sub-districts.

By contrast, the citizens of Sirajganj Sadar – one of the most disaster-prone regions in Bangladesh and highly vulnerable to heatwaves, floods and riverbank erosion – feel they have been left to fend for themselves. For this reason, we analyse the data from this sub-district separately, to highlight its more stark needs.

Sub-districts where quantitative and qualitative surveys were conducted

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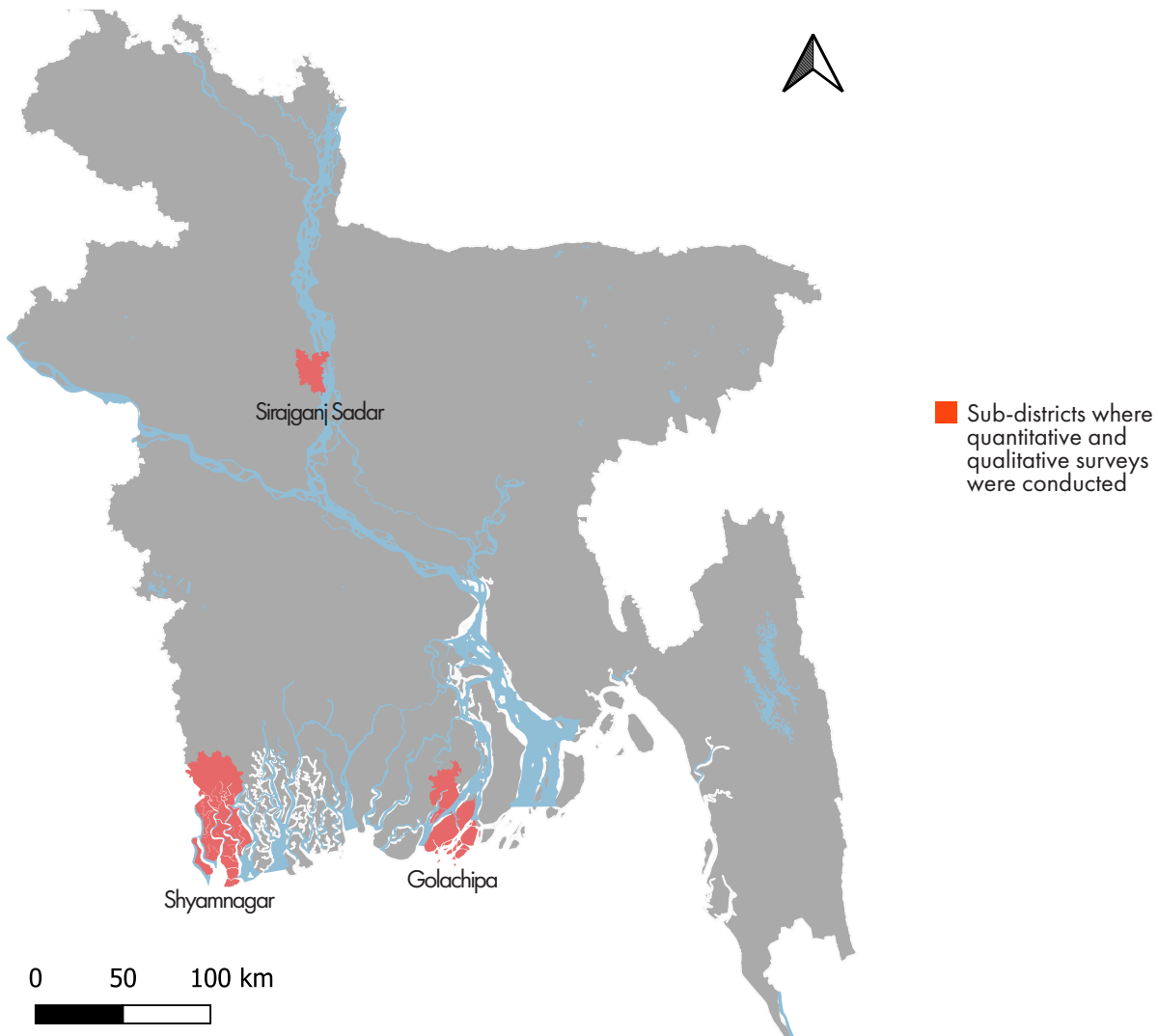
[3] Amin, R. and Shammin, M. October 2021. "A resilience framework for climate adaptation: the Shyamnagar experience".
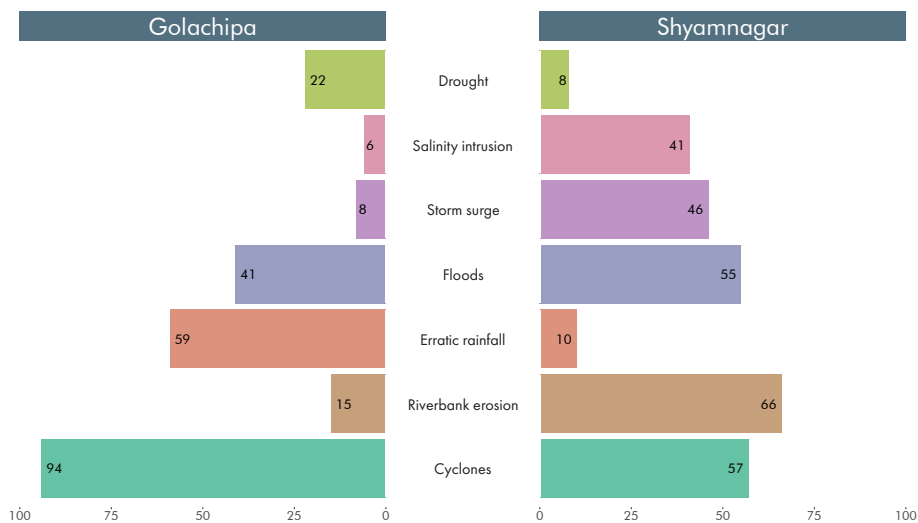
Shyamnagar and Golachipa—infrastructure at risk from cyclones, floods and storms

Shyamnagar is an upazila in Satkhira district on the southwest coast of Bangladesh. Large parts of Shyamnagar consist of agricultural land, canals, rivers and shrimp *ghers*.[4] Areas of human settlement for its 300,000-strong population, a third of whom live in extreme poverty,[5] are limited and communities tend to be concentrated in densely populated enclaves. The area is highly vulnerable to cyclones and storms, whose impacts are compounded by drainage congestion due to the construction of massive polders (circular embankments) and the expansion of saline zones for shrimp cultivation. Large swathes of the population depend on the Sundarbans (one of the most extensive mangrove forests in the world) for their livelihoods.[6]

Golachipa is an upazila in Patuakhali district, where a population of 290,000 lives in an area of around 3,000km[2]. Sitting next to the Bay of Bengal, low-lying and unprotected from the sea, most people's livelihoods rely on agriculture and fishing – two sectors frequently at the mercy of natural hazards like cyclones, tidal surges and erratic rainfall.[7]

Respondents were asked to select the "natural" disasters they are most affected by, the biggest impacts of these disasters on themselves and their family, and the people in their community whom they think are most affected. We used the term "disasters" rather than hazards, as it was more easily understood in the Bangla language.

Which "natural" disasters are you and your community most affected by?

	Golachipa	Shyamnagar
Drought	22	8
Salinity intrusion	6	41
Storm surge	8	46
Floods	41	55
Erratic rainfall	59	10
Riverbank erosion	15	66
Cyclones	94	57

*Percentages do not total 100% because respondents could choose multiple options.

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[4] Definition: earthen walls built by farmers to enclose areas ranging from a fraction of an acre (1 acre = 0.4 hectare, approximately) to several acres (Ahmed, S. October 2018. "Shrimp farming at the interface of land use change and marginalization of local farmers: critical insights from southwest coastal Bangladesh").

[5] Mussader, M. et al. September 2020. "Investigating the climate-induced livelihood vulnerability index in coastal areas in Bangladesh".

[6] Amin, R. and Shammin, M. October 2021. "A resilience framework for climate adaptation: the Shyamnagar experience".

[7] Action for Enterprise. N.d. "Market development for disaster risk reduction: Golachipa value chain analysis".

What are the biggest impacts of "natural" disasters on you and your family?
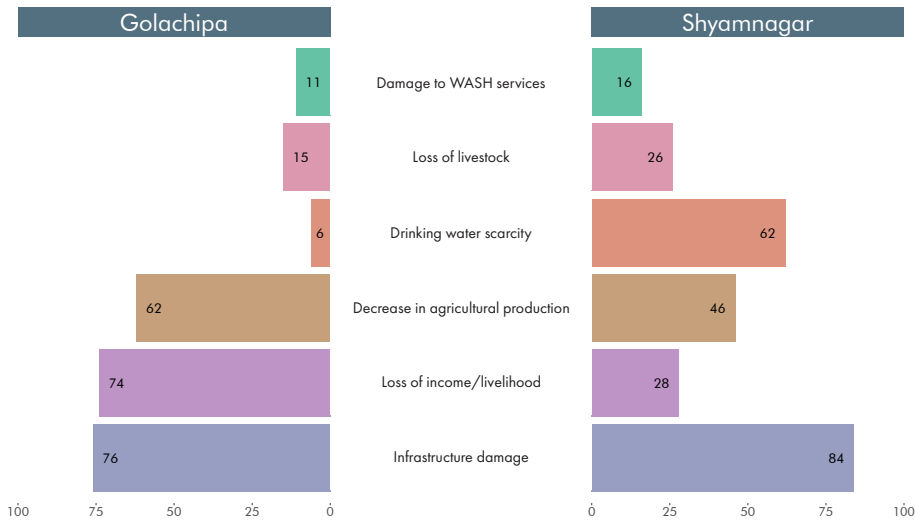
	Golachipa	Shyamnagar
Damage to WASH services	11	16
Loss of livestock	15	26
Drinking water scarcity	6	62
Decrease in agricultural production	62	46
Loss of income/livelihood	74	28
Infrastructure damage	76	84

*Percentages do not total 100% because respondents could choose multiple options.

Who do you think is most affected by "natural" disasters in your community?

	Golachipa	Shyamnagar
Middle-class individuals		10
Low-income individuals	26	15
Farmers	27	
Fishers	50	44

*Percentages do not total 100% because respondents could choose multiple options.

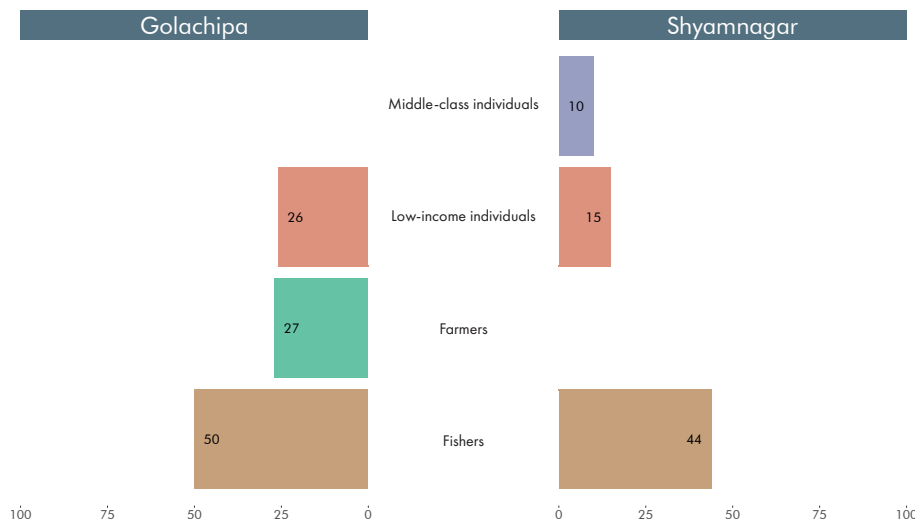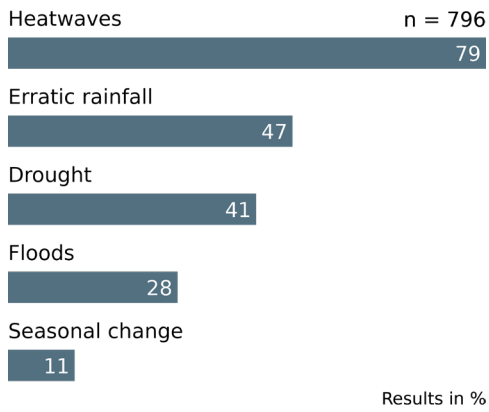**This question was open-ended and left to the interpretation of the respondent, which is why some categories overlap.

Sirajganj Sadar—frequent disasters threaten incomes, crops and health

Sirajganj Sadar in the northwest is one of the most disaster-prone upazilas in Bangladesh, known to the aid community for its frequent floods and riverbank erosion. Many residents live in poverty with poor access to health services and education, and those families who are reliant on agriculture for their livelihoods are often at the mercy of natural hazards.

Respondents were asked the same questions as in the two coastal upazilas about which disasters affect them most and what their impacts are. But they gave distinctly different answers. Most striking is that 79% highlight heatwaves while just 28% highlight floods – in a district where most aid programming has traditionally focused on flood preparedness and relief. This suggests a potential mismatch between locally-perceived needs and aid programming, at least in this sub-district. The finding underlines the importance of regular, detailed engagement with at-risk communities to ensure that adaptation programming itself adapts to the fast-moving realities of climate change.

Which "natural" disasters are you and your community most affected by?

Heatwaves   n = 796
```
████████████████████████████████████ 79
```

Erratic rainfall
```
██████████████████ 47
```

Drought
```
████████████████ 41
```

Floods
```
███████████ 28
```

Seasonal change
```
█████ 11
```
                                    Results in %

Percentages do not total 100% because respondents could choose multiple options.

What are the biggest impacts of "natural" disasters on you and your family?
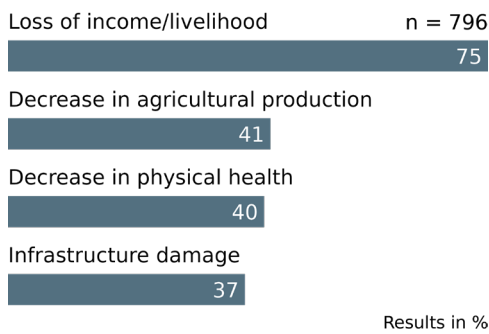
Loss of income/livelihood   n = 796
```
████████████████████████████████ 75
```

Decrease in agricultural production
```
█████████████████ 41
```

Decrease in physical health
```
████████████████ 40
```

Infrastructure damage
```
███████████████ 37
```
                                    Results in %

Percentages do not total 100% because respondents could choose multiple options.

Who do you think is most affected by "natural" disasters in your community?

Low-income individuals   n = 796
```
████████████████████████ 28
```

Farmers
```
█████████████████████ 25
```

Fishers
```
███████ 8
```
   Results in %
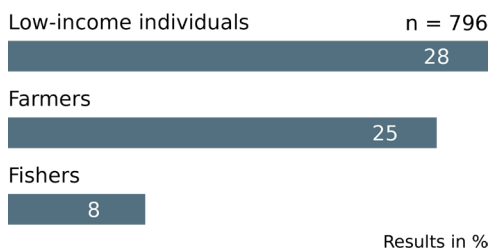
Percentages do not total 100% because respondents could choose multiple options.

**This question was open-ended and left to the interpretation of the respondent, which is why some categories overlap.*

Shyamnagar and Golachipa: measuring the gap

Adaptation programmes fall short of expectations

To get a better understanding of how people experience programmes that aim to boost climate resilience, it helps to know what they expected of them in the first place.[8] We asked 1,571 people in the coastal sub-districts of Shyamnagar and Golachipa about their expectations and perceptions to identify areas where project implementers might improve.[9] Mapping the gap between communities' (typically high) expectations and their (often lower) perceptions of the reality on the ground helps identify priorities for adapting and improving interventions.
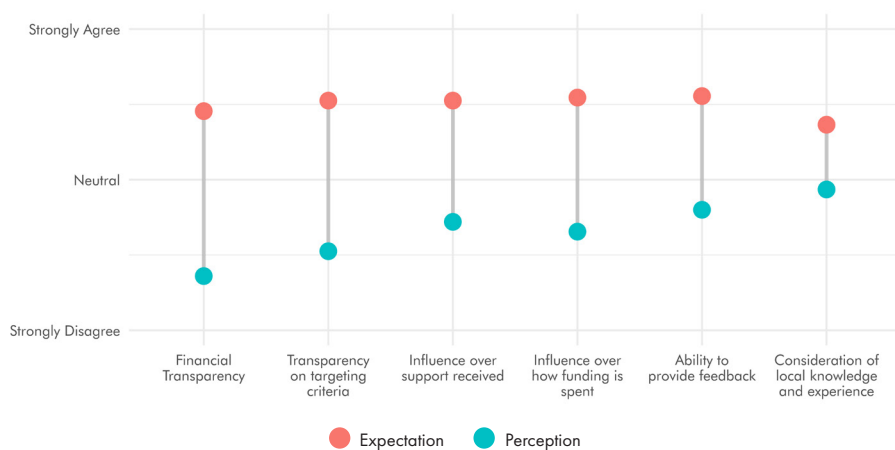
On the whole, people in these two sub-districts feel that adaptation programmes are falling short of their expectations. The gap is widest for transparency, both financial and with respect to targeting criteria. On the former, people don't know how funding to deal with the impacts of climate change is spent in their area. On the latter, they don't know how organisations choose who receives support and who doesn't. The gap for local influence over how funding is spent is nearly as wide. However, when it comes to considering local knowledge in their projects, organisations are closer to meeting people's expectations.

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[8] Morgeson, Forrest V. April 2013. "Expectations, Disconfirmation, and Citizen Satisfaction with the US Federal Government: Testing and Expanding the Model". Journal of Public Administration Research and Theory 23(2): 289–305.

[9] Expectations are measured by using the question: "How important is X to you?" This ensures we measure expectations by how people value a concept, rather than based on past experience.

50 years of investment shows, but community resilience is a long way off

A glowing report card on rapid information—but more effort needed to reach those without phones or TVs

Systematic investment over five decades in cyclone preparedness, community-based early warning systems, hydromet initiatives, adaptive delta management and structural improvements have helped save lives, reduce economic losses and protect development gains from floods, cyclones and erosion.[10]

The success of the softer side of these measures is evident in Shyamnagar and Golachipa, where 96% of those we surveyed say they have access to weather forecasts, 98% have access to information to help them prepare for disasters and 99% of people say they have access to early warning, giving credit to the government and NGOs. People interviewed also say that awareness-raising and training on disaster preparedness, the Cyclone Preparedness Program (CPP), effective use of radio and TV broadcasts, flag-based systems, text messages, the establishment of community coordination initiatives for emergency response, and the construction of embankments and shelters have all been instrumental in decreasing the number of deaths and injuries from disasters in their communities.

Who provides you with support to deal with the impacts of climate change?

Government   n = 1571
93

NGOs
71

Friends and family
10

No one
5

Results in %
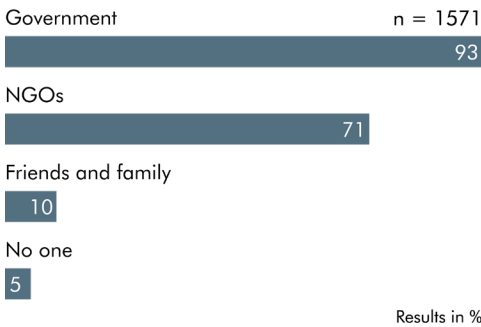
Percentages do not total 100% because respondents could choose multiple options.

> " Reading the books [on disaster preparedness] in school benefited us a lot. Earlier, we were not aware of what to do in times of disasters and now we know what steps to take whatever the disaster is. This really benefited the women.
>
> *Woman, Buri Goalini, Shyamnagar*

> " There are a lot less deaths now. The NGOs all give us warning now so people are more aware. [...] We also have a road that acts as a dam, so the water doesn't get into the area as easily.
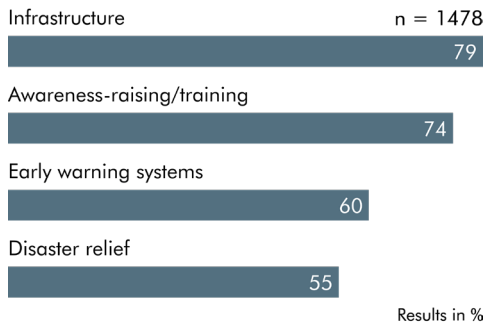>
> *Woman, Buri Goalini, Shyamnagar*

A school-cum-cyclone shelter in Porakatla, Munshiganj, Shyamnagar. Photo: Abir Abdullah/GTS

[10] Kazi, S. November 2020. "Bangladesh's 50 years journey to climate resilience".

What kind of support have you received from the government and NGOs to deal with the impacts of climate change?

Infrastructure   n = 1478

| 79 |

Awareness-raising/training

| 74 |

Early warning systems

| 60 |

Disaster relief

| 55 |
Results in %

Percentages do not total 100% because respondents could choose multiple options.

** This question was only asked to people who responded "government" and/or "NGOs" to the previous question.
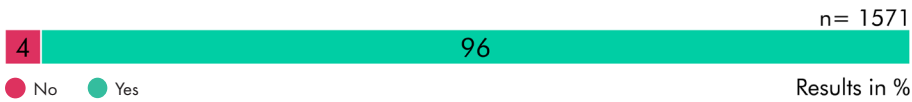
Do you have access to early warning messages on "natural" disasters?

n= 1571

| 1 | 99 |

● No   ● Yes   Results in %

Do you have access to information to help you prepare for "natural" disasters?

n= 1570

| 2 | 98 |

● No   ● Yes   Results in %

Do you have access to weather forecasts?

n= 1571

| 4 | 96 |

● No   ● Yes   Results in %

More nuance came out in interviews, where people in Shyamnagar and Golachipa had a lot to say on community preparedness. Many agree that more should be done to ensure that everyone in their community receives warning messages in a timely and relevant manner. Most are disseminated through text message and TV announcements, meaning that people who cannot read or who do not own phones or televisions must rely on other community members to tell them about incoming hazards. This can prevent them from getting warnings early enough to prepare and evacuate.

One solution suggested is to increase the number of community members trained to recognize signs of incoming hazards and disseminate warning information to others. There are local committees and CPP volunteers in their communities who already do this, but they say more people should be encouraged to join.

> 66
>
> Those who are from a different generation and don't use phones or TVs, they don't get early warnings. A lot of people died on the other side of the river because they didn't get the information on time.
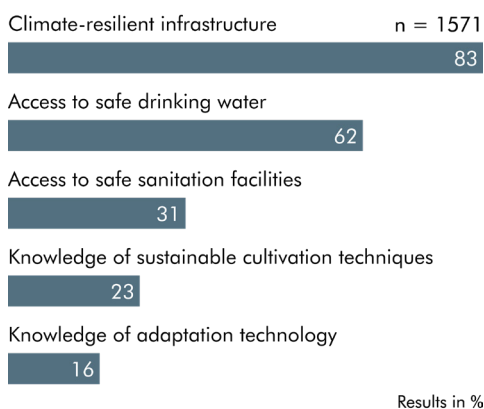>
> *Woman, Buri Goalini, Shyamnagar*

Information without infrastructure does not help people to feel prepared

Climate hazards continue to put communities and their assets at risk,[11] and people feel structural interventions need to be improved and scaled up to ensure that communities can better absorb shocks. On average, 83% of people consider climate-resilient infrastructure,[12] specifically embankments and roads, as their most important unmet need.

The merits of building embankments have long been debated by policy-makers, experts, civil society and development agencies as they have led to longstanding issues of siltation and waterlogging,[13] but respondents say they are the first lines of defence against the impacts of riverbank erosion, salinity intrusion and floods. Damaged, destroyed or simply ineffective embankments are a constant problem. People fear that unless embankments are higher, stronger and better maintained, the damage to their homes, roads, lands and crops will keep increasing, rendering other adaptation efforts useless.

What are your most important needs that are not currently met?

Climate-resilient infrastructure   n = 1571

83	

Access to safe drinking water

62	

Access to safe sanitation facilities

31	

Knowledge of sustainable cultivation techniques

23	

Knowledge of adaptation technology

16	

Results in %

Percentages do not total 100% because respondents could choose multiple options.

Roads are also a common concern. They are frequently submerged, damaged or become too muddy to use during heavy rains. Some respondents believe that this issue will be resolved once the embankments are fixed, but others are calling for the construction of higher and better roads. In both Shyamnagar and Golachipa, many of the roads are unpaved and deteriorate rapidly. In emergencies, evacuating to safer areas or accessing shelters can be difficult or impossible, especially for people with limited mobility.

After disaster strikes, road repairs can take a long time, reducing people's access to basic services such as drinking water, emergency healthcare and education – and making it hard to get to work. All these factors mean that it is more difficult for people to recover from disasters that threaten their health and livelihoods.

With more resilient embankments and roads, people feel their community's ability to cope with hazards and adapt to climate change would greatly improve. Damage to homes, businesses and other assets would be minimised and people's access to essential services would be better protected. Of course, structural interventions are not the only requirement for people to build their resilience to increasing climate risks, but they are top of mind for communities in danger.

> 66
>
> If there is a heavy storm, this place may not be here next year. Repair the embankment.
>
> *Man, Panpatti, Golachipa*

> 66
>
> Only a permanent embankment can stop the damage. Otherwise, there is no option left.
>
> *Man, Buri Goalini, Shyamnagar*

> 66
>
> Our road is not paved. In an emergency like a storm, heavy rain or riverbank erosion, it is difficult for us to get to the cyclone shelters with older people and pregnant women. We need a long-term and sustainable road.
>
> *Man, Buri Goalini, Shyamnagar*

> 66
>
> If they take conscious notice of our embankment, our suffering will ease a lot and we won't need any other relief or assistance then.
>
> *Man, Buri Goalini, Shyamnagar*

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[11] World Bank Group. October 2022. "Country climate and development report: Bangladesh".

[12] Definition: infrastructure that is planned, designed, built, and operated in a way that anticipates, prepares for, and adapts to changing climate conditions. It can also withstand, respond to, and recover rapidly from disruptions caused by these climate conditions (OECD. 2018. "Climate-resilient infrastructure: policy perspectives").

[13] Nandy, G. July 2022. "Bangladesh needs mangroves and embankments, say locals and experts".

Respondents also stress the importance of increasing the number and quality of available shelters as a preparedness measure. Despite decades of government investment in multi-purpose shelters, there still aren't enough of them. In most conversations, people said that shelters are far away and challenging to get to in emergencies. They also tend to be very basic, with shared facilities for women and men, no arrangements for persons with disabilities or pregnant women, no space to store belongings or accommodate animals, and no food. All these factors make people think twice before using them, which can have dire consequences.

Finding land on which to build shelters is difficult, but a CPP leader in Shyamnagar says building climate-resilient homes that double as shelters[14] could be the answer:

"If [the government] allocates land to families and builds cyclone shelters that they will look after, these could be useful. They can live in them all year round and during disasters, the building will be used as a cyclone shelter. If this could happen, people wouldn't have to come all the way from Chunkuri to Harinagar Bazar or Jelepara to Harinagar Bazar."

Saving lives and addressing short-term needs is acknowledged and appreciated—it's also not enough

When asked whether government and NGO interventions helped improve their ability to deal with the impacts of climate change, 96% of people responded positively. But this was generally interpreted to mean disaster preparedness and relief. They appreciate this aid, but say they need a lot more support to increase household incomes, diversify their livelihoods and access basic services such as education, clean water and healthcare to build resilient futures.

Do you feel like the government and NGO support you have received improved your ability to deal with the impacts of climate change?

mean=3.69, n=1478

1	3	40	37	19

Results in %
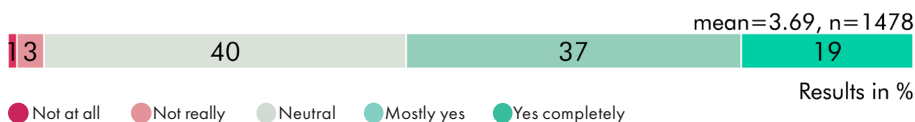
● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

* Mean refers to the average sacore given by respondents, where "not at all" = 1 and "yes, completely" = 5

Many people in Shyamnagar and Golachipa are farmers and fishers, and their way of life is becoming increasingly insecure. People spoke at length about how disasters such as cyclones, riverbank erosion and saline intrusion are leading to food and water insecurity, unstable employment and severe economic losses due to destroyed crops, fish farms and fishing boats. They try their best to recuperate their losses through relief items, cash-based assistance and loans but they say it won't be long before another disaster hits and they find themselves back in the same situation. Successful implementation of the National Adaptation Plan,[15] whose goal is self-reliance, needs support from funders and programme teams who take a longer term view.

People interviewed say they need more access to resilient crop varieties, water treatment systems and storage tanks, as well as training on sustainable agriculture and aquaculture. They also call for support to diversify their livelihoods and reduce their dependency on natural resources through tailoring and handicrafts training for women, business development training and in-kind contributions to start businesses like rickshaws and sewing machines. With the next generation in mind, they stress the importance of improving access to education for children, to prevent them from relying on vulnerable livelihoods in the future.

[14] A similar approach was trialed by BRAC in Bangladesh: Ali, M. October 2022. "Rethinking shelter: Bangladesh's new approach to protecting lives and livelihoods".

[15] Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh, "National Adaptation Plan of Bangladesh (2023-2050)".

> If there is an older person living in the house, I face a huge dilemma. Do I go alone or do I take them with me? If I have to carry him with me and swim, then he and I will both die as there is no shelter nearby.
>
> *Man, Galachipa, Golachipa*

> Many people give hope, but when the disaster is over, no one can be found, and we have to fight to survive.
>
> *Woman, Buri Goalini, Shyamnagar*

> They [the government and NGOs] help us, but very little. They have no other duty than saving lives.
>
> *Man, Panpatti, Golachipa*

> Saline water makes it hard to grow crops, people don't have food to feed their families or vegetables to sell for money. Their future plans are not feasible either as investments in plants and trees can soon become useless due to another disaster.
>
> *Male community leader, Buri Goalini, Shyamnagar*

> Suppose we take out a 50,000 taka loan to eat and maintain family expenses after a disaster. Then as we are paying it off, another disaster hits and we need to take out more loans.
>
> *Man, Galachipa, Golachipa*

Countless projects have been implemented[16] to address these challenges, and one project in Shyamnagar stood out as being particularly effective: the Nobo Jatra - New Beginning[17] project implemented by World Vision Bangladesh in partnership with the Government of Bangladesh and Winrock International. In interviews, many respondents were aware of this project; two women who participated in it said its activities on basic and entrepreneurial literacy, climate-smart agriculture and alternative livelihoods helped people, especially women, access government extension services and higher incomes, which could then be invested in savings, better homes and education. Many said this project helped them reduce losses and damages from disasters and made people feel more empowered to advocate for their own needs.

However, across the board, respondents feel like these kinds of projects do not benefit enough people and need to be implemented on a much wider scale. People are aware that organisations cannot help everyone but say with interventions like training of trainers, community members could be encouraged to share their knowledge with others.

> "
> Before Nobo Jatra, a lot of people didn't know how to write, and they didn't talk to organisations like they do now. People are a lot braver now to raise their concerns. Nobo Jatra also really helped women find work.
>
> *Woman, Buri Goalini, Shyamnagar*

> "
> Before this project, I had no literacy and no job. Now my family is much better off because I am earning money from a vegetable business and a cosmetics business. I can feed my children better now and invest in their education. I don't even have to rely on my husband anymore.
>
> *Woman, Buri Goalini, Shyamnagar*

A woman catches shrimp fry with a small net in Neeldumur, Buri Goalini, Shyamnagar. Photo: Abir Abdullah/GTS

[16] Including by organisations Caritas Bangladesh, the Christian Commission for Development in Bangladesh and Shams.
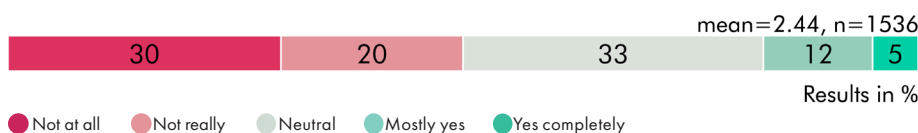
[17] For more information, please visit: https://www.wvb-nobojatra.org.

Half the people do not feel heard by decision-makers

People have a right to participate in the decisions that affect their lives. For the last 20 years at least, it has been recognised that adaptation approaches are more likely to succeed if they are rooted in local knowledge and empower communities to make their own decisions, rather than being top-down initiatives.[18] When a critical mass of local people get to exercise their agency, there is more likelihood that adaptation actions will be context-specific, coherent, accountable, democratic, agile, diverse and cost-effective.[19]

Although people told us they are highly motivated to advocate for their needs and provide feedback on interventions to ensure better outcomes for themselves and their communities, half of the people surveyed in Shyamnagar and Golachipa do not feel their thoughts and opinions are considered by decision-makers. On average, 50% of people feel like their community members can influence the support they receive, but respondents say their influence is often limited to targeting and rolling out predetermined activities for pre-designed projects. This is frustrating for the many who feel they are not getting sufficient support to enhance their wellbeing and long-term resilience. Many say that they are constantly voicing their needs to government agencies and NGOs but are largely ignored.
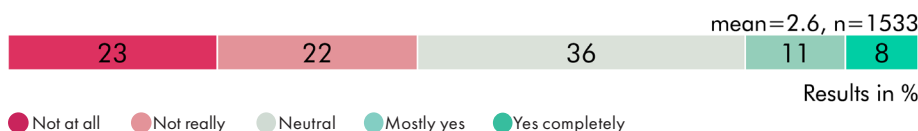
Do you think people in your community have a say in the support they receive to deal with the impacts of climate change?

mean=2.44, n=1536

30	20	33	12	5

Results in %

● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

> Organisations do not value our opinions or needs.
>
> *Man, Galachipa, Golachipa*

> If those providing support are working for the people, why are they not listening properly to the needs of the target groups?
>
> *Woman, Buri Goalini, Shyamnagar*

For agencies to improve their accountability to communities and ensure continuous improvement of services, ongoing feedback is key. However, people in Shyamnagar and Golachipa have mixed feelings about providing feedback. Despite 55% of people saying that they can provide some feedback on the support they receive, only 42% have done so. Many say there are limited benefits to doing so as they rarely see follow-up.

In all focus groups in Shyamnagar and Golachipa, people said that they are often scared to complain due to fears that organisations will stop supporting them or that they will be harmed. This reveals an urgent need for greater trust between communities and project implementers, and for feedback mechanisms that allow for safe and anonymous reporting.

Do you feel like people in your community can provide feedback on the support they receive to deal with the impacts of climate change?

mean=2.6, n=1533

23	22	36	11	8

Results in %

● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

> We've expressed our views so many times, but they have never been acted on.
>
> *Man, Munshiganj, Shyamnagar*

> Complaining brings danger. If we complain, we will not get any support anymore.
>
> *Man, Panpatti, Golachipa*

> If we say anything, they can harm us.
>
> *Man, Panpatti, Golachipa*

Have you provided feedback on the support you receive to deal with the impacts of climate change?

n= 1571

58	42

Results in %

● No ● Yes

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[18] Reid, H. et al. N.d. "Community-based adaptation to climate change: an overview".

[19] Soanes, M. et al. January 2021. "Principles for locally led adaptation: a call to action".
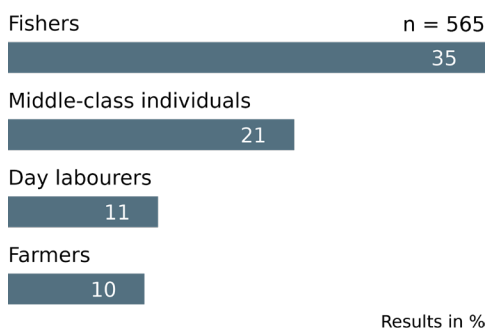
A fairness deficit as people point to favouritism in aid allocation

Fair and equitable climate change projects should "generate benefits for all affected stakeholders"[20] but on average, 86% of people in Shyamnagar and Golachipa feel that there are people in their community who are left out.

Do you feel like there are people in your community who are not getting support to deal with climate change impacts even though they need it?

Yes completely   n = 1539

Yes completely	37
Somewhat	26
Mostly yes	23
Not really	7
Not at all	7

Results in %
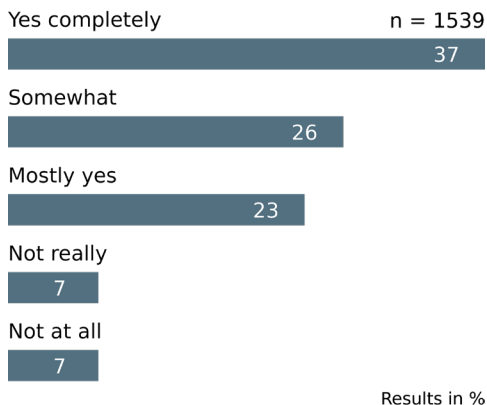
Who do you think is not getting support?

Fishers   n = 565

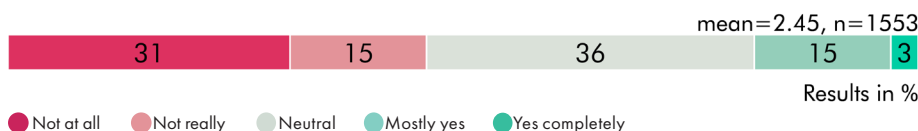|	
Fishers	35
Middle-class individuals	21
Day labourers	11
Farmers	10

Results in %

* This question was only asked to people who answered "Yes completely" to the previous question.

** Percentages do not total 100% because respondents could choose multiple options.

*** This question was open-ended and left to the interpretation of the respondent, which is why some categories overlap.

Almost half of the respondents (46%) in Shyamnagar and Golachipa say that government and NGO-led support is unfairly provided due to favouritism, mismanagement and unfair selection processes.

Do you feel that support to deal with the impacts of climate change is provided in a fair way?

mean=2.45, n=1553

Not at all	Not really	Neutral	Mostly yes	Yes completely
31	15	36	15	3

Results in %

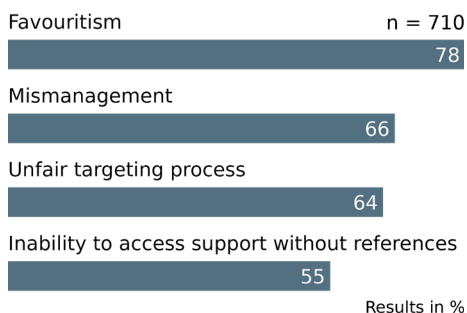● Not at all   ● Not really   ● Neutral   ● Mostly yes   ● Yes completely

> 66
>
> *The distribution is unfair. Well-off people are getting support while poor people like us never get anything.*
>
> *Man, Galachipa, Golachipa*

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[20] GIZ. 2022. "Climate justice in ecosystem-based adaptation".

Why do you think support is not provided in a fair way?

Favouritism | n = 710
| 78

Mismanagement
| 66

Unfair targeting process
| 64

Inability to access support without references
| 55

Results in %

* This question was only asked to people who answered "not at all" or "not really" to the previous question.

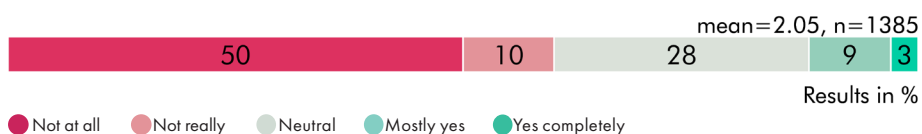*** Percentages do not total 100% because respondents could choose multiple options.*

The lack of transparent information could be a reason why people feel this way. On average, in both sub-districts, 60% of people don't know how organisations choose who receives support and who doesn't, and 74% don't know how funding to deal with the impacts of climate change is spent in their communities. As a result, people are coming to their own conclusions about how government agencies and NGOs are working. In Shyamnagar and Golachipa, many respondents feel that people are chosen for assistance based on their connections with implementers, rather than on their needs. Many also claim that organisations are taking a lot of the money that is supposed to be injected into their communities.

A project implementer in Shyamnagar confirmed that instances of favouritism are happening but stressed that, in his view, the issue isn't as extensive as people think.
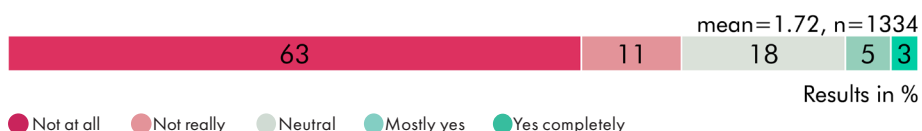
"Organisations don't have enough funds to help everyone. People that are left out may feel like this is entirely due to favouritism and mismanagement, but that is not the case. The beneficiaries selected due to favouritism only represent about 5% of beneficiaries. You have to agree to do this [favour certain individuals] – you cannot stop the project and deprive 20 people for that 1 person"

(Man, project implementer, Shyamnagar)

Do you know how organisations choose who receives support and who doesn't?

mean=2.05, n=1385

| 50 | 10 | 28 | 9 | 3 |

Results in %

● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

Do you know how funding to deal with climate change impacts is spent by organisations in your area?

mean=1.72, n=1334

| 63 | 11 | 18 | 5 | 3 |

Results in %

● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

> "Support is not distributed properly. Those who deserve it, don't get it a lot of the time. Those who already have enough, they end up getting more. I just feel like they give to the people they know.
>
> *Female community leader, Buri Goalini, Shyamnagar*

> If organisations allocate 50,000 taka for us, we will only get 20,000 taka. I feel like this because the money comes from the top and passes by many people before it reaches us.
>
> *Male community leader, Buri Goalini, Shyamnagar*

Feeling abandoned and ignored—the case of Sirajganj Sadar

Sirajganj Sadar is well-known for being one of the most disaster-prone regions in Bangladesh, highly vulnerable to floods and riverbank erosion, but also to heatwaves and droughts. Many disaster risk reduction and climate change adaptation projects have taken place in the wider area, aiming to increase community resilience, mostly to floods.

Far lower access to early warning information than coastal districts

Despite numerous aid interventions in the wider area, only just over half of all people surveyed say they have access to early warnings of "natural" disasters or access to information on how to prepare for disasters, while just 62% say they have access to weather forecasts. This compares poorly with the two coastal sub-districts we surveyed, where the responses to all questions are 96% or more.

Do you have access to early warning messages on "natural" disasters?

n= 796

47	53

● No ● Yes

Results in %

Do you have access to information to help you prepare for "natural" disasters?

n= 796

44	56

● No ● Yes

Results in %

Do you have access to weather forecasts?

n= 796

| 38	62

● No ● Yes

Results in %

A farmer examines crops destroyed after Cyclone Sitrang. "I couldn't save most of my paddies this time because of the wind and rain during the cyclone". Belkuchi, Rajanagar, Sirajganj. Photo: Abir Abdullah/GTS

Disaster relief makes scant impact on people's resilience

Some 62% of our 796 respondents in Sirajganj Sadar say they do not receive any support from either the government or from NGOs to help them deal with the impacts of climate change. Roughly one-third say they have received some support from the government, with 3% reporting assistance from NGOs.
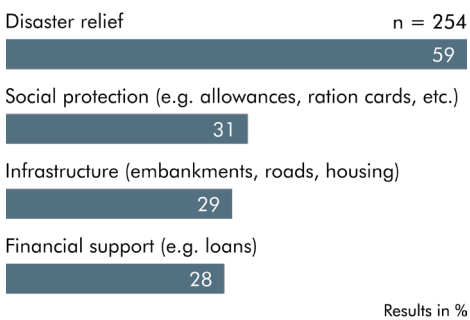
Who provides you with support to deal with the impacts of climate change?

No one   n = 796

No one	62
Government agencies	31
Friends and family	8
NGOs	3

Results in %
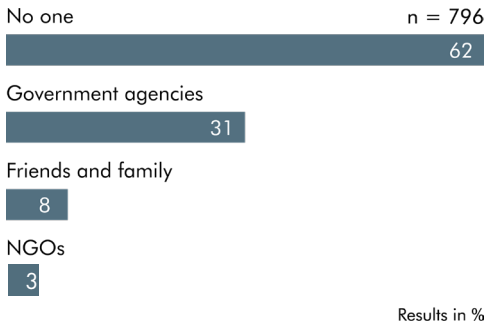
Percentages do not total 100% because respondents could choose multiple options.

The most commonly known types of interventions in the area are disaster relief measures (59%), social protection and infrastructure projects, which respondents say do not go far enough to help people recover adequately from disasters or increase their standard of living. Several people we interviewed feel that NGOs, where they were present, are benefiting more from relief efforts than those they were aiming to help. Mostly though, they call for longer term solutions.

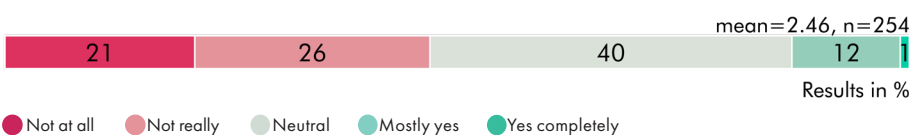### What kind of support have you received from the government and NGOs to deal with the impacts of climate change?

Disaster relief   n = 254

Disaster relief	59
Social protection (e.g. allowances, ration cards, etc.)	31
Infrastructure (embankments, roads, housing)	29
Financial support (e.g. loans)	28

Results in %

Percentages do not total 100% because respondents could choose multiple options.

** This question was only asked to people who responded "government" and/or "NGOs" to the previous question.

Of those who say they have experienced climate adaptation programming, only 13% say it has mostly improved their ability to deal with the impacts of climate change.

Do you feel like this support improved your ability to deal with the impacts of climate change?

mean=2.46, n=254

Not at all	Not really	Neutral	Mostly yes	Yes completely
21	26	40	12	1

Results in %

- Not at all
- Not really
- Neutral
- Mostly yes
- Yes completely

> "The support they provide doesn't help much at all. People don't want any more rice and lentils. There is no more land to live on. We need better support.
>
> *Female community leader, Sirajganj Pourashabha, Sirajganj Sadar*

> "No NGO can say that they helped a family by buying them 10kg of rice. They are profiting from whatever happens to people but not actually addressing their needs.
>
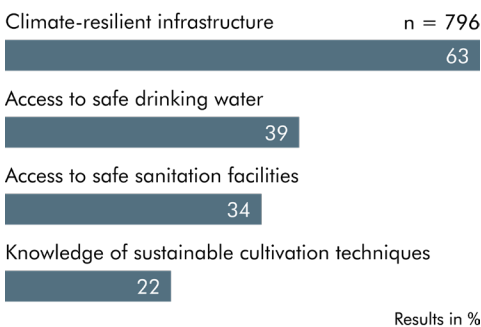> *Male community leader, Kalia Haripur, Sirajganj Sadar*

People need to see investment in infrastructure and public services to feel secure

Similar to people in Shyamnagar and Golachipa, 63% of our respondents in Sirajganj Sadar consider climate-resilient infrastructure, especially embankments and roads, as their most important need. They see this as the main solution for dealing with the impacts of riverbank erosion, an ever-looming threat, and frequent floods.

To enhance their resilience and increase their standard of living, people say they also need better access to basic services, such as safe drinking water (39%) and sanitation facilities (34%). They add that they need training on sustainable agriculture practices and access to resilient crop varieties (22%), plus support to diversify their livelihoods away from dependence on natural resources.

Respondents in the interviews and focus group discussions also call for better disaster preparedness measures, such as early warning systems and access to weather forecasts – requests that chime with the quantitative data on the poor level of access to information presented at the beginning of this chapter.

What are your most important needs that are not currently met?

Climate-resilient infrastructure   n = 796
63

Access to safe drinking water
39

Access to safe sanitation facilities
34

Knowledge of sustainable cultivation techniques
22

Results in %

*Percentages do not total 100% because respondents could choose multiple options.

People fear climate impacts and don't know who to ask for help

Feedback from Sirajganj Sadar may suggest a disconnect between the modest levels of aid provided to support adaptation, with its focus on the threat of flooding, and the main challenges people say they face, especially extreme heat. While there have been numerous attempts to curb erosion along the Jamuna river, our findings suggest a level of community concern that these are not working fast enough. Indeed, earlier this year, swathes of riverbank in nearby Chauhali were washed away.

A wide range of climate-related hazards, including heatwaves, drought and other seasonal changes are causing major economic and livelihood losses, stalling progress on clean water, decreasing agricultural productivity, and threatening public health. With climate change getting worse, people fear that these impacts will soon become insurmountable. Projections outlined in the 2016 Sirajganj City resilience study[21] are proving true according to community members from the broader upazila, who see rising temperatures and erosion caused by changing rainfall and floods as priority threats.

The loss and damage these residents suffer and their fear of the future is further compounded by a sense that they don't know who to turn to for help. Most respondents in the interviews and focus groups say they feel ignored by government agencies and NGOs. In our survey, only 11% of people feel that their community members have a real say in the support they receive to deal with the impacts of climate change.

> ❝ No matter how much support you provide, it will not be very effective until you provide a permanent solution to our riverbank erosion problem. Other types of support will not be fruitful as long as that problem persists. That is why our deepest desire is to get a proper embankment in this area.
>
> *Man, Sirajganj Pourashabha, Sirajganj Sadar*

> ❝ People keep losing their land and homes. There are no work opportunities, so people are extremely poor. We have to rent other people's lands to live but even those are eroding away. The conditions here are not liveable anymore.
>
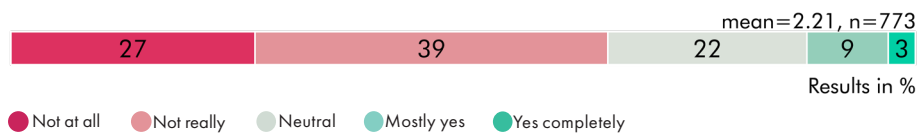> *Woman, Sirajganj Pourashabha, Sirajganj Sadar*

> ❝ Poor people don't have electricity so they can't use fans. During heatwaves, they sleep 1-2 hours a night at most.
>
> *Man, Kalia Haripur, Sirajganj Sadar*

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[21] The Rockefeller Foundation and ICLEI. 2016. "City Resilience Strategy: Sirajganj City, Bangladesh".

Do you feel like people in your community have a say in the support they receive to deal with the impacts of climate change?

mean=2.21, n=773

27	39	22	9	3

Results in %

● Not at all ● Not really ● Neutral ● Mostly yes ● Yes completely

During follow-up discussions on this finding in our focus groups, people say they would like to advocate for more and better support from the government and from NGOs, but they don't know who to turn to. Their contact with decision-makers is limited and they are worried about the consequences of claiming their rights.

Participation is key to climate change adaptation. It may be that community members are simply unaware of larger-scale projects aimed at dealing with erosion and drainage, but it's unusual that in an area so disaster-prone, so many citizens do not seem to have access to appropriate messaging, let alone a place to turn to have their voices and concerns heard.

❝

People don't know how to raise their issues, there is no one to convey their words to.

Man, Kalia Haripur, Sirajganj Sadar

❝

No one ever comes to listen to us.

Woman, Sirajganj Pourashaba, Sirajganj Sadar

❝

If we claim our rights, we are scared of being put in a cage.

Man, Kalia Haripur, Sirajganj Sadar

A woman weaves cooling mats in Kalia Haripur, Sirajganj. Photo: Abir Abdullah/GTS

What next?

The data that underpins this report offers a baseline. Its power will emerge by continuing to track people's views over time, surfacing what communities see as working – and what's not. The hope is that their feedback becomes both a driver of better performance and a measure of programme impact. To this end, the plan is to continue to work in the three sub-districts covered by this report and to extend coverage to all those areas included in the new National Adaptation Plan.

Presenting this work at COP27 inspired a robust discussion among policy-makers and practitioners alike about why community voices are essential to getting this right.

To complement our work in Bangladesh, we will seek support in applying the GTS methodology in two additional countries, likely starting with the Sahel, where desertification and drought pose huge challenges, and where GTS is already active in humanitarian work.

As an extension to the GTS methodology, we plan to co-design with communities an "adaptation capacity analysis" that places more emphasis on community dignity and capacity, and less on vulnerability and sectors. The focus will be on community agency, and how local entities, government and the international system (in that order) can best provide support. We will track this over time to see how community perceptions change and, in the process, the aim is to demonstrate that such a co-design process leads to better outcomes for community members.

Ultimately, the goal is to encourage the inclusion of the community perspective in every aspect of climate adaptation, from individual projects to global policy.

We are seeking funding to continue this work. To join us for phase two, or to find out more, contact info@groundtruthsolutions.org or visit groundtruthsolutions.org/climate

Farmers carry grass from the Chars (sand islands). "We have no work now, every day we have to travel long distances to work as daily labourers." Panchil, Sirajganj. Photo: Abir Abdullah/GTS

Survey methodology

Sampling

The sample aimed to cover the general population in six unions covering three different sub-districts (upazilas) in Bangladesh: Shyamnagar, Golachipa and Sirajganj Sadar.

After consulting our partners at ICCCAD, these locations were deliberately selected based on their high degrees of vulnerability to climate change impacts, as well as on the climate change adaptation and disaster risk management interventions active in the area. In order to randomly sample people within these unions, we used a gridded population survey approach. Using Worldpop data for projected population estimates in Bangladesh in 2020, we randomly sampled from cells covering these unions aiming at one household per cell using GridSample.

Interviewers used offline mapping tools to find the selected cells in each of the unions and sampled one household member in each of the cells. In case of missing households in the designated cell, the original cell was replaced by the nearest one.

The sample was stratified per union targeting 384 households each. With a small oversampling for all unions considered, we had an actual total sample size of 2,367. The sample size broken down per union resulted as follows:

Shyamnagar (781)

- Munshiganj (390)
- Buri Goalini (391)

Golachipa (790)

- Galachipa (390)
- Panpotti (400)

Sirajganj Sadar (796)

- Sirajganj Pourashabha (409)
- Kalia Haripur (387)

Survey design

Our survey was designed in a workshop in Dhaka, in collaboration with ICCCAD and IIED, blending known community proxies for adaptation and resilience with GTS' tested quality metrics adapted from the humanitarian space. Questions were designed to be either binary, multiple choice or using Likert scales (scales from 1-5, sometimes known as "satisfaction scales"). Answers to multiple choice questions were not read out to avoid biasing the answers.

Weighting

Since our sample can be reasonably considered a simple random sampling, we did not apply any design weight. Therefore, while the unions had different population sizes, we assigned to each one the same weight. Our survey results were raked to marginal totals by sex, age and unemployment rate based on demographic information available on the UN World's Population Prospect for 2022 (sex and age) and the World Bank's Databank (unemployment rate). The raking step ensures that the survey respondents represent their proper proportions in the population with respect to sex, age and unemployment rate.

Coverage and exclusion

Since the selected unions cover relatively small areas, we did not have to exclude any part in these unions due to logistics or other reasons.

Precision of estimates

To calculate margins of error per sub-district we used the "Survey" R package , a statistical software used in R programming, specifying our survey design and the raking adopted as specified above. Note that the precision varies from question to question, sample size per question (as some of the questions are just follow-up questions asked to a subset of the total sample).

For questions that were asked to all recipients across all sub-districts, margins of error range between 1.3% and 2.6% points for Likert questions and between 0.5% and 3.7% for binary questions.

Focus group discussions and key informant interviews

The aim of the focus groups and interviews was to enable a more in-depth analysis of our quantitative data. Using a semi-structured questionnaire, facilitators from ICCCAD spoke to 192 people through 12 focus groups and 48 interviews in Munshiganj and Buri Goalini (Shyamnagar), Galachipa and Panpatti (Golachipa), Sirajganj Pourashabha and Kalia Haripur (Sirajganj Sadar). All interviews were recorded with consent and transcribed and translated by ICCCAD.

Challenges during data collection and limitations

Although sex, age and disability disaggregated data was collected for this report, we did not observe any differences in responses.

The team experienced delays in getting permission to conduct the quantitative surveys in Sirajganj Sadar and were not able to cover the entire study area.

In the focus group discussions and interviews, many people expressed concern about retaliation and were not comfortable sharing details on issues related to fairness and transparency.

> Sex, age and disability dissagredated data is available from Ground Truth Solutions upon request.

Annex: Added value of Ground Truth Solutions' methodology in climate change adaptation policy and practice

Prior to the surveys described in this report, GTS commissioned IIED to conduct an independent, detailed landscape review of climate change adaptation practice and policy in two countries – Bangladesh and Ethiopia. As well as desk-based analysis of 10 existing adaptation policies and 10 adaptation programmes across both countries, researchers in both countries interviewed key stakeholders for in-depth insights into the pros and cons of existing data collection and community engagement methodologies.

The review exposed multiple gaps between the rhetoric of engaging communities (found in policy and practice documents) and the reality on the ground. The gaps are more the result of inadequate methodologies than a lack of desire or intent on the part of policy-makers and planners. The authors of the review believe GTS' methodology is well suited to act as a bridge from rhetoric to realisation, as detailed in the following extract from the review.

Bridging gaps between the rhetoric of community engagement and the reality

1. Communities are not involved in formulating adaptation policies

Gap: Policies usually characterise climate change impacts through the extrapolation of scientific models and data – often due to a lack of existing baseline data in many "local" contexts in the global South. This fails to capture the impacts perceived by different community groups on the front line of climate risk and their subjective views on climate risk. Failure to frame the problem accurately may lead to inappropriate solutions.

GTS' role: Perception-based data can be used to develop baselines for risk and resilience in contexts with little other information. Surveys can capture the opinions of local communities regarding which climate change impacts and risks are most severe for their lives and livelihoods, differentiated for different groups such as women, the most vulnerable and the urban poor. This is important because research shows people adapt their behaviour based on subjective perceptions of risk, not on scientific projections. GTS is ideally designed to capture the social dimensions of vulnerability, capacity and adaptation that perception-based data can provide.

Gap: Communities are largely not involved in formulating adaptation policies – they are mostly represented by proxies from civil society. This risks the adaptation agenda being hijacked by elite voices and paternalistic policy-makers, which may lead to flawed policy recommendations.

GTS' role: GTS can act as a "reality check" to ensure that the policy recommendations proposed are relevant to the communities being targeted by those recommendations. It provides a swift and light approach to systematically gathering the views of local communities in a format that can be used for policy- and decision-making.

2. Communities are not involved in designing adaptation projects and programmes

Gap: Adaptation projects are mostly designed by experts and consultants in capital cities far removed from the frontline of climate change impacts, with little active input from local communities. Apart from the risk of inappropriate interventions that are not suitable for local contextual realities, this lack of community engagement misses the opportunity to foster a sense of ownership by communities in the projects designed to benefit them. Some government policies call for community participation in design – Ethiopia's Climate-Resilient Green Economy strategy, for example, talks of a "local feasibility test" to ensure the contextual appropriateness of planned measures; but the methodologies to make this happen are lacking.

GTS' role: GTS's methodology which embraces dialogue and sense-making, not simply data collection, is ideally suited to engaging communities in discussions on different design options at the very outset of project proposals. Communities are more likely to share their traditional knowledge of ecosystems and adaptation if they believe they are genuinely being listened to. A participatory design process would not only result in interventions that better serve the needs of everyone in the community, it would also build local trust and ownership, likely extending the impact and sustainability of the project's goals beyond its own lifespan. Unlike most traditional participatory methodologies, GTS enables communities to influence the design of adaptation interventions using a process that is rigorous, replicable and swift. However, for GTS's bottom-up process to convert listening into agency, project managers must be prepared and able to act on the communities' views and insights.

3. Community participation in projects is limited to implementing the ideas of others

Gap: Adaptation projects mostly instrumentalise the role of communities – that is, local people are seen as useful tools for executing response agendas designed by external actors. There is plenty of community participation, for example in the management of natural resources such as social forestry, but local decision-making is limited to the sub-project level.

GTS' role: Genuine community engagement in implementing adaptation projects must include the possibility of tweaking or adapting implementation along the way based on community input, so as to maximise its benefits for the target communities. GTS's iterative methodology allows communities to evaluate project implementation continuously, rather than simply at the mid-term or end-of-project evaluation. This in turn permits course corrections, as long as there is some potential for flexibility built into the project.

4. Monitoring, evaluation and learning (MEL) doesn't meaningfully engage with communities or report back to them

Gap: We found very little community participation in MEL across any of the 10 projects analysed in Bangladesh and Ethiopia. M&E tends to be conducted by external consultants, in order to provide what is perceived as an independent, third-party audit for the benefit of donors and project leads. These processes do not share results with communities and still less do they prioritise the co-creation of learning on "what works and why" with communities. Accountability is mainly upwards, with few attempts to demonstrate accountability "down" to communities.

GTS' role: GTS's methodology – through its iterative process – deliberately and consistently engages the community in monitoring, evaluating and learning. Critically, the methodology includes a process through which community responses to surveys are reported back to that community and discussed. That discussion process greatly enhances the learning opportunities from the project, as well as delivering accountability to those whom the intervention intends to benefit. Furthermore, GTS's consumer feedback provenance prioritises perception-based data which can deliver insights into the causal processes underlying why interventions deliver the results they do.

5. Data collected by existing community surveys is objective not subjective

Gap: Traditional community surveys, (e.g. those that make up most vulnerability & capacity assessments or VCAs) are based on gathering objective data, which is viewed as more scientific and therefore more valid than subjective data. However, emerging research shows that this is a false assumption. Community resilience to the impacts of climate change is the ultimate desired outcome for adaptation projects. Yet defining resilience is a slippery challenge. Objective measures of resilience, such as monthly household incomes or annual crop yields, are designed by outsiders and often fail to capture the complexity of what each family needs to build its resilience.

GTS' role: GTS can provide a complementary process to the more objective measures of VCAs and MEL, capturing tricky-to-measure results such as community resilience, satisfaction, trust and cohesion that are essential for managing risk successfully. The concept of "subjective resilience" is gaining traction in climate adaptation research and practice – showing that local perceptions of resilience are often as valid in defining successful outcomes as so-called scientific or objective data. Additionally, GTS facilitates the quantification of this subjective data that permits comparison within or between community groups.

6. Data collection from communities is a one-off snapshot – not an iterative, longitudinal process

Gap: Traditionally in-depth data collection is mostly limited to three moments in the project lifecycle: initiation/design phase (e.g. VCAs), halfway through implementation (mid-term review) and when the project closes (MEL). Although these data collection processes may be very detailed, they only represent snapshots in the project's full cycle. Snapshot data may then inform adaptation solutions that are inadequate for reducing risks from the unpredictable impacts of climate change, or even the effects of seasonality. Furthermore, these surveys are often conducted by different organisations using different methodologies, making comparisons problematic, while the results of mid-term or end-of-project evaluations will probably be published too late to make a difference to project implementation.

GTS' role: GTS is designed as a light-touch, iterative process in which a random sample of community members is asked a similar set of questions on a regular basis, for example every year. The process resembles a consumer feedback survey rather than an onerous household survey. This enables the GTS surveyors to build up a dataset of subjective opinions, which – by virtue of being repeated and based on the same methodology – can be converted into objective, longitudinal data. Consequently, this dataset can be used to track the effectiveness of a project over time, or to compare the effectiveness of a similar type of intervention across different communities. This leads to "dynamic" insights into the risks communities face and their shifting capacities to deal with those risks. It promotes learning "on-the-go", which can lead to tweaks and course corrections where project design allows. It can also assist in the governance of complex programmes across multiple contexts.

7. Data collection from communities is extractive, with little focus on sense-making

Gap: Traditional data collection, whether VCAs, mid-term evaluations or end-of-project MEL, tends to view communities as passive sources from which to extract data. The data is then funnelled to "experts" who analyse it and use it in decision-making. This process has several drawbacks. There is a margin for error in how the data is interpreted. The quality of data is likely to be less rich as communities know that they are unlikely ever to see the results of the data extraction process. And extracting data misses the opportunity for both surveyors and communities to share learning around project goals, processes and outcomes that can help enhance capacities to manage risk.

GTS' role: GTS's methodology includes a critical dialogue phase, in which the data gathered during surveys is reported back to communities, who are then encouraged to make sense of it and learn from it. This process, when correctly carried out, can capture the diverse voices of community groups who may be marginalised in more traditional data extraction. Equally, the sense-making process permits greater opportunities for learning which interventions contribute to greater resilience, both among the communities themselves but also among project implementers.

8. Adaptation projects fail to systematically track outcomes and impacts

Gap: Most adaptation projects focus on tracking outcomes only twice in the lifespan of a project – in the mid-term evaluation and in the final evaluation. Apart from these two moments, most other monitoring and data collection exercises focus on tracking outputs. Furthermore, when projects do attempt to track progress on outcomes, they almost always rely on static, objective metrics and simplistic proxy variables, such as "increase in household income", to quantify how a household has been made more resilient.

GTS' role: GTS's approach is ideally suited to capturing outcomes. Its regular, light-touch methodology permits the tracking of outcomes on a regular basis, not simply in mid-term and end-of-project evaluations. In addition, GTS's focus on subjective data allows surveyors to understand the outcomes and impacts of project interventions by gathering the opinions of those on the ground best placed to experience those outcomes first-hand. GTS can probe the extent to which new forms of adaptive behaviour have been adopted and what effects that has had. Furthermore, the sense-making process mentioned above can shed light on the often poorly understood effect of local power dynamics on warping intervention outcomes in favour of the powerful.

9. Existing community surveys are slow, expensive and difficult to deploy after shocks

Gap: As we have seen, most meaningful community data collection tends to happen in three distinct phases – baseline/design, mid-term monitoring and end-of-project evaluation. One reason why data collection is not more frequent is because the processes are slow to design, implement and analyse. This makes them expensive and therefore somewhat inflexible to changing circumstances. Yet climate change adaptation presents new challenges compared to "traditional" development programmes: the hydrometeorological impacts of a warming world can be extreme and unpredictable. Disasters and shocks might strike during an adaptation project's lifespan, throwing the project's goals into doubt and requiring reappraisal. Current data collection methods are not optimised to support this need for rapid and flexible deployment.

GTS' role: GTS's light-touch, iterative approach that is baked into programmes (as opposed to standing alone) is more flexible and lower-cost than traditional community surveying methods, allowing managers to employ it opportunistically – for example, after extreme events. The longitudinal dataset that GTS creates can help project implementors track the impacts of new shocks, assess the effectiveness of adaptation measures, and help inform any course corrections that become necessary to delivering the project's core outcomes.

How GTS' methodology can contribute during the programme cycle

GTS' methodology comprises of five steps, repeated at intervals with the same target respondents: Design, Collect, Analyse, Discuss, Course Correct. This approach is unique and distinct from other community survey methodologies in a number of important ways, as explained below in the context of the traditional programme cycle of initiation, implementation and closing phases.

Initiation phase – design and planning

Many climate adaptation programmes start with a vulnerability and capacity assessment (VCA) of communities at risk, along with a baseline assessment to analyse the situation before the implementation phase. Including GTS in the design and planning of an adaptation programme could lead to several advantages:

Existing methods: VCA & baseline survey	GTS methodology's value-add
Mainly objective questions.	Reveals subjective community perceptions of risk and resilience.
Extractive – data is collected and analysed by "experts".	Collaboration with respondents delivers richer data analysis, more complete insights and local ownership over next steps.
One-off process, resulting in a static picture.	Iterative process enables design of longitudinal assessments that track and quantify subjective data throughout project.

Implementation phase – project monitoring

Adaptation projects typically prepare monitoring reports several months and a mid-term evaluation (MTE) to assess the relevance of an intervention and its progress towards its planned objectives. These usually track inputs (project activities) and outputs (the initial building blocks of change) – but they rarely track outcomes (the changes that projects aim to bring about). Many don't require input from communities. Employing GTS in the monitoring and mid-term evaluation of a project could lead to several advantages:

Existing methods: monitoring tools and mid-term evaluations	GTS methodology's value-add
Focused on tracking inputs and outputs.	Reveals outcomes, through tracking perceptions of utility of inputs and outputs.
Slow and arduous data collection, mid-term eval-uation is one-off, offering limited opportunities for course correction.	Enables adaptive management: iterative, light-touch approach delivers stream of insights to help projects harness local agency, course-correct and maximise impact.
Cumbersome to use in the aftermath of extreme climate events that may have an impact on project design.	Easily deployed to capture swift responses in the aftermath of extreme events .

Closing phase – evaluation

The final evaluation of most adaptation projects aims to gauge its performance and achievements against overall objectives, to generate lessons learned from the implementation and outcomes achieved, and to develop specific recommendations for others who may be planning similar projects. Most final evaluations include inputs from those the project has aimed to benefit. Employing GTS's methodology in the closing phase of projects could lead to several advantages:

Existing methods: documentation and final evaluations	GTS methodology's value-add
Largely focused on what worked to reduce risk and enhance resilience.	Sheds light on why particular initiatives worked or didn't, by revealing contextual and subjective insights.
Entail time and effort to sort, code, analyse and package data at the end of projects.	Delivers data that is easy to sort, code and communicate.
Largely draw on snapshot data points that have not been collected consistently and frequently.	Provides high-frequency, longitudinal data on a uni-form set of parameters that can map changes brought about by a project.

A summary of GTS' added value compared to "Business as Usual" approaches

Business as usual approaches	Ground Truth Solutions' approach
Objective data: Vulnerability and Capacity Assessments largely focus on objective parameters (e.g. household assets, socio-economic indicators) to infer vulnerability.	**Subjective data:** GTS provides insights into how communities perceive and make sense of risk and resilience – critical for sustainable and effective adaptation.
Static snapshots: Baselining or mid-term evaluations tend to describe a situation at a fixed point in time – inadequate for understanding dynamic operational contexts in which projects unfold.	**Iterative:** GTS entails multiple rounds of rapid data collection throughout a project, providing a near-real time view of shifts in context. This iterative approach can better inform responses to dynamic risks.
Extracting data for experts: Existing approaches are extractive – surveyors gather data to be ana-lysed by "experts" (although in some cases tabled for verification with communities).	**Collaborative, sense-making process:** GTS's "Discuss" phase allows communities and surveyors to reflect on data – flattening power differences between "experts" and communities.
Limited insights on outcomes: While projects are operational, existing approaches mostly track inputs and activities. Mid-term and endline evaluations might focus on outcomes but take place at long inter-vals and provide static snapshots.	**Rich insights on outcomes:** Through providing room for subjective reflections, GTS can enable frequent data collection on changes in community behaviour that are key outcomes for any community-based adaptation initiative.

Business as usual approaches	Ground Truth Solutions' approach
Limited scope for course correction: Mid-term evaluations usually happen once in a project and can last for months, after which the project might take steps to adapt its theory of change.	**Scope for continual course correction:** GTS's multiple rounds of rapid data collection provide insights on outcomes and create continual opportunities for project adjustment and improvement.
Inflexible in face of shocks: Adaptation usually takes place in vulnerable contexts with a higher likeli-hood of disasters, following which traditional data collection is difficult and expensive, leading to potential disruption in a project's assumptions and objectives.	**Enables adaptation to adapt:** GTS's rapid, light-touch process is flexible and baked into a project from the outset. As it leans less on external experts, GTS can rapidly re-survey populations following shocks and deliver insights enabling managers to adapt assumptions and objectives.
Focus on what: Existing approaches tend to track what activities and changes are delivered by projects as they unfold, though some evaluations capture outcomes at intervals.	**Focus on why:** Given its iterative capacity to capture subjective information, GTS can deliver insights into causal processes underlying why interventions deliver the results they do.
Time-heavy data analysis: Data collected from participatory processes, surveys, monitoring reports and evaluations takes a lot of time and effort to sort, code, synthesise and publish.	**Quick to analyse:** GTS delivers data that is easy to analyse and publish, as questions are aligned with key analytical themes from the outset and answers are "close-ended" or tightly defined.
Variable surveys hamper comparison: Most adaptation projects do not have systems in place for generating data from a consistent set of beneficiaries against a uniform set of parameters at a high frequency.	**Uniform surveying allows longitudinal analysis:** GTS provides fine-grained data on a uniform set of themes that is collected iteratively over time with consistent stakeholder groups, allowing longitudinal analysis.

Think communities should be in the driving seat of climate adaptation efforts? Contact
meg@groundtruthsolutions.org

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